

Georgia Power Company
Plant Yates –R6 CCR Landfill
Newnan, Georgia
Coweta County

2019 ANNUAL GROUNDWATER MONITORING
AND CORRECTIVE ACTION REPORT



ATLANTIC COAST
CONSULTING, INC.

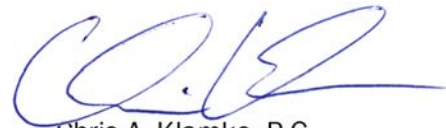
PROFESSIONAL GEOLOGIST CERTIFICATION

This *2019 Annual Groundwater Monitoring and Corrective Action Report*, Georgia Power Company - Plant Yates R6 CCR Landfill has been prepared in compliance with the Georgia Environmental Protection Division Rules for Solid Waste Management 391-3-4-.10 and 391-3-4-.14 by a qualified groundwater scientist or engineer with Atlantic Coast Consulting, Inc. (ACC).

ACC certifies that all site constituents were below the applicable Georgia maximum contaminant levels (MCL) for the groundwater monitoring network well samples collected during the first semiannual monitoring event completed in March 2019 (analytes included in Appendix III of 40 CFR § 257). During background monitoring for analytes included in Appendix IV of 40 CFR § 257 completed during 2016 - 2018 there were MCL exceedances for selenium in samples collected from three groundwater monitoring network wells and beryllium in one well.

ATLANTIC COAST CONSULTING, INC.

Evan B. Perry, P.
Project Manager
Date: July 31, 2019



A handwritten signature in blue ink, appearing to read "C. Klamke".

Chris A. Klamke, P.G.
Vice-President

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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), Atlantic Coast Consulting, Inc. (ACC) has prepared this report to document groundwater monitoring activities conducted during the first half of 2019 at Georgia Power Company's (GPC's) Plant Yates R6 CCR Landfill (Site). 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 US EPA CCR rules are cited within this report.

Groundwater monitoring and reporting for CCR units is performed in accordance with the monitoring requirements § 257.90 through 257.91 and § 257.93 through 257.94 of the Federal CCR rule and the Georgia EPD rule 391-3-4-.10(6)(a)-(c). This report documents the activities completed to establish the groundwater monitoring program and actions through the first half of 2019 in accordance with § 257.90(e).

The R6 CCR Landfill ceased accepting CCR prior to October 19, 2015 and is therefore not subject to Federal monitoring requirements. A CCR Unit Solid Waste Handling Permit application for R6 CCR Landfill was submitted to GA EPD in November 2018 and is currently under review. Groundwater monitoring has been initiated in order to meet GA EPD requirements. This report includes the background data and the initial detection monitoring data for R6 CCR Landfill.

1.1 Site Description and Background

Plant Yates is located at 708 Dyer Road, on the east bank of the Chattahoochee River in Coweta County, Georgia near the Coweta and Carroll County line, approximately 8 miles northwest of the city of Newnan and 13 miles southeast of the city of Carrollton. Plant Yates occupies approximately 2,400 acres. Figure 1, Site Location Map, depicts the site location relative to the surrounding area. R6 CCR Landfill is located adjacent to the Ash Ponds 3, A, B, and B', which are monitored and reported as subject to federal CCR rule.

1.2 Regional Geology and Hydrogeologic Setting

Plant Yates is located in the Inner Piedmont Physiographic Province of western Georgia, immediately southeast of the regional zone of deformation referred to as the Brevard Zone. Rock units at Plant Yates are primarily interlayered gneiss and schists. The rocks in the area have been subjected to several episodes of metamorphism and intrusion by igneous bodies. Extensive jointing occurs in the area. Surface expressions of the joints are observed on topographic maps and aerial photos of the Plant Yates area.

A thin layer of soil from one to two feet thick overlies a thick layer of saprolite. The saprolite, which extends to typical depths of 20-40 feet below ground surface, was formed in-place by the physical and chemical weathering of the underlying metamorphic rocks. There is typically a zone of variable thickness (approximately 5-20 feet) of transitionally weathered rock between the saprolite and competent bedrock. Localized alluvial soils consisting of generally coarser material (silty-sand, clayey silt, and silty clay with well-rounded gravel and cobbles) than that observed in saprolite may be related to historical river channel migration.

At Plant Yates, groundwater is typically encountered slightly above the saprolite/weathered rock interface. Groundwater flow in the saprolite zone is through interconnected pores and relict textures and fractures. As the rock becomes increasing competent with depth groundwater flow

occurs mainly through joints and fractures (i.e. secondary porosity). Recharge to the water-bearing zones in fractured bedrock takes place by seepage through the overlying mantle of soil/saprolite, or by direct entrance through openings in outcrops. The average depth of the water table at Plant Yates varies with topography, ranging from approximately 5 to 50 feet below ground surface. The water table occurs in the saprolite and in the transitionally weathered zone, at least several feet above the top of rock.

In-situ slug tests were performed in saprolite and weathered bedrock at multiple locations on the site. The hydraulic conductivity at these locations typically ranges from 10^{-3} to 10^{-4} centimeters per second, based on multiple rising-head and falling-head slug tests. This indicates a fairly uniform medium across the saprolite and weathered rock horizon. The values from the field test fall within the standard range of hydraulic conductivity values associated with a silty sand.

1.3 Groundwater Monitoring System and CCR Units

Pursuant to § 257.91, a groundwater monitoring system was installed within the uppermost aquifer at the Site. The monitoring system is designed to monitor groundwater passing the R6 CCR Landfill waste boundary within the uppermost aquifer. Figure 2, Well Location Map, shows the monitoring well locations. Wells were located to serve as upgradient and downgradient monitoring points based on groundwater flow direction (Table 1A, Monitoring Network Well Summary). The upgradient wells include wells upgradient from the adjacent multi-unit CCR unit – AP-3, A, B, and B'. This proximal multi-unit CCR unit is upgradient of the R6 Landfill and its network includes the farthest upgradient locations at the Site (Figure 3). The closure of the adjacent multi-unit CCR unit will result in the reconfiguration of the existing groundwater monitoring network for R6 CCR Landfill in the near-future.

As typical of the Piedmont Physiographic Province, there is a high degree of connectivity between the overburden, partially weathered rock, fractured bedrock, and the materials comprise a single uppermost aquifer. Based on the site hydrogeology, the monitoring system is designed to monitor groundwater flow in the overburden, the transition-zone, and the upper bedrock as a single interconnected aquifer system. Wells suffixed with an “S” are installed in overburden (saprolitic soil), an “I” indicates partially weathered rock (transition zone), and “D” indicates upper bedrock. The monitoring well network for the Site is provided on Figure 2, Well Location Map.

2.0 GROUNDWATER MONITORING ACTIVITIES

Pursuant to 40 CFR § 257.90(e), the following describes monitoring-related activities performed in the first half of 2019 and discusses any status changes of the monitoring program. All groundwater sampling was performed in accordance with § 257.93. Samples were collected from each well in the monitoring system shown on Figure 2, Well Location Map.

Pursuant to § 257.90(e)(3), Table 2A, Groundwater Sampling Event Summary, presents a summary of groundwater sampling events completed at the Site during background monitoring through the first half of 2019. Locations associated with R6 CCR Landfill were monitored for Appendix III constituents during the March 2019 semi-annual monitoring events. Eight rounds of background sample collection for Appendix III and IV constituents were completed for the R6 CCR Landfill monitoring locations; laboratory analytical reports for those results and for the first semi-annual event are presented in Appendix A, Laboratory Analytical and Field Sampling Reports.

2.1 Monitoring Well Installation and Maintenance

In accordance with the Georgia Rules for Solid Waste Management Chapter 391-3-4-.10 and § 257.91, a groundwater monitoring system was installed that (1) consists of a sufficient number of wells, (2) installed at appropriate locations and depths to yield groundwater samples from the uppermost aquifer, and (3) meets the performance standards of § 257.91(a). In summary, groundwater monitoring activities included the installation of the following:

- A groundwater monitoring system for R6 CCR Landfill as presented in Tables 1A and 1B.
- Dedicated QED bladder pumps for groundwater sampling.

The number, spacing, and depths of the groundwater monitoring wells were selected by a qualified groundwater scientist based on the characterization of site-specific hydrogeologic conditions. Groundwater monitoring wells were designed to monitor the uppermost water-bearing zone. Monitoring well designations were determined based on measured groundwater levels at the site. Upgradient wells were installed at locations pursuant to § 257.91(a)(1). Downgradient monitoring wells were installed along the downgradient waste boundary pursuant to § 257.91(a)(2).

2.2 Detection Monitoring Program

In accordance with § 257.94(b), a detection monitoring program for R6 CCR Landfill was implemented by collecting eight (8) background samples during 2016 – 2018 (Table 2A). A ninth round of groundwater samples were collected in March 2019 as the initial detection monitoring event.

2.2.1 Background Monitoring

Eight (8) independent samples were collected from the R6 CCR Landfill network and analyzed for the constituents listed in Appendix III and IV. Laboratory analytical reports for the background sampling events are included in Appendix A. Table 5A, Summary of Background Groundwater Analytical Data - 2016 – 2018, presents tabulated data for each background event.

2.2.2 Initial Detection Monitoring

Following completion of the eight independent sampling events, groundwater samples were collected from R6 CCR Landfill network monitoring wells on March 26-28, 2019 and analyzed for Appendix III constituents as part of the first semi-annual detection monitoring event. Pursuant to § 257.90(e)(3), laboratory analytical reports for the March 2019 sampling event are included in Appendix A. Table 5B, Summary of Groundwater Analytical Data - March 2019, presents the tabulated data for the detection monitoring event.

3.0 SAMPLE METHODOLOGY & ANALYSES

The following sections describe the methods used to conduct groundwater monitoring at the Site.

3.1 Groundwater Flow Direction, Gradient, and Velocity

Prior to each assessment sampling event, groundwater elevations were recorded from piezometers and each well in the network. Groundwater elevations recorded during the background and detection monitoring events are summarized in Table 3, Summary of Groundwater Elevations –March 2019. Groundwater elevation data was used to develop Figure

3, March 2019 Water Table Contour Map. The general direction of groundwater flow across the site is interpreted based on flow occurring from higher elevation to lower elevation. As shown on Figure 3, groundwater flow is mainly from the south to the northeast, except for the north side of the unit where the flow direction is to the northwest. The groundwater flow patterns observed during the March 2019 monitoring event are consistent with historical patterns.

The groundwater flow velocity at Plant Yates was calculated using a derivation of Darcy's Law.

Specifically:

Equation

$$v = \frac{K (dh/dl)}{P_e} \quad \text{where:} \quad \begin{array}{l} v = \text{ground water velocity} \\ K = \text{hydraulic conductivity} \\ dh/dl = \text{hydraulic gradient} \\ P_e = \text{effective porosity} \end{array}$$

Groundwater flow velocities were calculated for the site based on hydraulic gradients, average hydraulic conductivity based on previous slug test data from the Site, 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). Groundwater flow velocities have been calculated and are tabulated on Table 4, Groundwater Flow Velocity Calculations – March 2019. The calculated flow velocity ranges between 0.054 to 2.0 feet per day or 20 to 748 feet per year.

3.2 Groundwater Sampling

Groundwater samples were collected using low-flow sampling procedures in accordance with 40 CFR § 257.93(a). Purging and sampling was primarily performed using bladder pumps dedicated to each well. For wells sampled with peristaltic pumps, tubing was lowered into the well so that the intake was at the midpoint of the well screen (or as appropriate determined by the water level). Peristaltic pump samples were collected using new disposable polyethylene tubing. All non-disposable equipment was decontaminated before use and between well locations.

Monitoring wells were purged and sampled using low-flow sampling procedures. A SmarTroll (In-Situ field instrument) was used to monitor and record field water quality parameters (pH, conductivity, oxidation-reduction potential, dissolved oxygen, and temperature) during well purging prior to sampling. Turbidity was measured using a Hach 2100Q portable turbidimeter. Groundwater samples were collected when the following stabilization criteria were met:

- ± 0.1 standard units for pH
- $\pm 10\%$ for specific conductance
- $\pm 10\%$ for DO where DO > 0.5 mg/L. No criterion applies if DO < 0.5 mg/L.
- Turbidity measurements less than 10 nephelometric turbidity units (NTU)

Once stabilization was achieved, samples were collected directly into appropriately-preserved laboratory-supplied sample containers. Sample bottles were placed in ice-packed coolers and submitted to Pace Analytical Services, LLC (Pace) of Peachtree Corners, Georgia and Greensburg, Pennsylvania following chain-of-custody protocol. Stabilization logs for each well during each monitoring event are included in Appendix A.

3.3 Laboratory Analyses

Groundwater samples were collected for both Appendix III and IV during the 8 background monitoring events. Groundwater samples collected in March 2019 for detection monitoring event were analyzed for Appendix III monitoring parameters. Analytical methods used for groundwater monitoring parameters are provided in laboratory reports in Appendix A.

Laboratory analyses were performed by Pace. Pace is accredited by the National Environmental Laboratory Accreditation Program (NELAP) and maintains a NELAP certification for all parameters analyzed for this project. In addition, Pace is certified to perform analysis by the State of Georgia. Laboratory reports and chain-of-custody records for the monitoring events are presented in Appendix A.

3.4 Quality Assurance and Quality Control Summary

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

Groundwater quality data in this report was validated in accordance with US EPA guidance (US EPA, 2011) and the analytical methods. Data validation generally consisted of reviewing sample integrity, holding times, laboratory method blanks, laboratory control samples, matrix spikes/matrix spike duplicate recoveries and relative percent differences, post digestions spikes, laboratory and field duplicate RPDs, field and equipment blanks, and reporting limits. Where appropriate, validation qualifiers and flags are applied to the data using US EPA procedures as guidance (US EPA, 2017).

Values followed by a "J" flag indicate that the value is an estimated analyte concentration detected between the method detection limit (MDL) and the laboratory reporting limit (PQL). The estimated value is positively identified but is below the lowest level that can be reliably achieved within specified limits of precision and accuracy under routine laboratory operating conditions. "J" flagged data are used to establish background statistical limits but are not used when performing statistical analyses.

4.0 STATISTICAL ANALYSIS

Statistical analysis of Appendix III groundwater monitoring data was performed on samples collected from the groundwater monitoring network following the appropriate method.

4.1 Statistical Methods

The statistical method used at the site was developed by Groundwater Stats Consulting, LLC (GSC), in accordance with 40 CFR § 257.93(f) using methodology presented in *Statistical Analysis of Groundwater Data at RCRA Facilities, Unified Guidance*, March 2009, US 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 parameter. Sanitas groundwater statistical software was used to perform the statistical analyses. Sanitas is a decision support software package that incorporates the statistical tests required of Subtitle C and D facilities by US EPA regulations.

4.1.1 Appendix III Constituents

Statistical tests used to evaluate the groundwater monitoring data consist of interwell prediction limits combined with a 1-of-2 verification resample plan for each of the Appendix III parameters except pH and chloride. Monitoring results for pH and chloride were evaluated using intrawell prediction limits combined with a 1-of-3 verification resample plan. Interwell prediction limits pool upgradient well data to establish a background limit for an individual constituent, and the most recent sample from each downgradient well is compared to the same limit for each parameter. Intrawell prediction limits are constructed from historical data within a given well, and the most recent sample is compared to background. If the most recent sample exceeds its respective background statistical limit, an initial statistically significant increase (SSI) is identified. A summary of the statistical methodology used at the Site for routine groundwater monitoring is provided in Table 6, Summary of Statistical Methods.

4.2 Statistical Analysis Results

Analytical data from the first semiannual detection monitoring event in March 2019 were statistically analyzed in accordance with the Statistical Analysis Plan.

Resampling to confirm SSIs was not performed; therefore, initial SSIs are treated as verified. The statistical analysis and comparison to prediction limits are included as Appendix B, Statistical Analyses.

4.2.1 First Semiannual Detection Monitoring Event

Based on the statistical results presented in Appendix B, the following summarizes parameters exhibiting SSIs as follows:

- Boron: YGWC-38, YGWC-41, YGWC-42, YGWC-43
- Calcium: YGWC-38, YGWC-42
- Sulfate: YGWC-38, YGWC-41, YGWC-42, YGWC-43
- TDS: YGWC-38, YGWC-41, YGWC-42, YGWC-43

Pursuant to § 257.94(e), within 90 days from determining an SSI, GPC will either (1) prepare a demonstration that a source other than R6 CCR Landfill was the cause, or (2) implement assessment monitoring per § 257.95.

4.2.2 Appendix IV Background Data

Pursuant to § 257.95, Appendix IV groundwater quality will be compared to groundwater protection standards if assessment monitoring is implemented.

5.0 MONITORING PROGRAM STATUS

R6 CCR Landfill is currently in detection monitoring. SSIs of Appendix III parameters have been identified. Pursuant to § 257.94(e)(1), GPC has 90 days from the date of determination to either (1) prepare a demonstration that a source other than R6 CCR Landfill was the cause, or (2) implement assessment monitoring per § 257.95. GPC will address the reported SSIs in accordance with the requirements, and options, of § 257.90(e)(1-3) and (f).

6.0 CONCLUSIONS AND FUTURE ACTIONS

Background monitoring has been completed in accordance with § 257.94(b). Statistical evaluations of the groundwater detection monitoring data for R6 CCR Landfill identified SSIs of Appendix III groundwater monitoring parameters. In accordance with § 257.94(e)(1-2), GPC will prepare an alternate source demonstration or initiate assessment monitoring program within 90 days.

The next scheduled groundwater monitoring event is scheduled for the second half of 2019.

7.0 REFERENCES

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Freeze, R.A. and Cherry, J.A. 1979, *Groundwater*, Prentice-Hall, Englewood Cliffs, New Jersey, 604 pp.

State Waste Management Board. 2016. State Solid Waste Management Regulations – (9VAC20 81 et seq.). January.

MacStat Consulting, Ltd., *Statistical Analysis Plan – Plant Yates Ash Pond 3 and B/B'*. 2017.

US EPA, 1989 Risk Assessment Guidance for Superfund (RAGS), Vol. I: Human Health Evaluation Manual (Part A) (540-1-89-002).

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

TABLES

Table 1A
Monitoring Network Well Summary

Well ID	Installation Date (mm/dd/yyyy)	Bottom Depth (ft BTOC)	Bottom Elevation (ft MSL)	Depth to Top of Screen (ft MSL)	Top of Screen Elevation (ft MSL)	Purpose
YGWA-39	7/7/2016	68.61	749.40	58.31	759.70	Upgradient
YGWA-40	7/7/2016	48.34	767.40	38.04	777.70	Upgradient
YGWC-38	7/23/2016	64.45	749.60	54.15	759.90	Downgradient
YGWC-41	7/8/2016	67.53	736.50	57.23	746.80	Downgradient
YGWC-42	7/8/2016	59.65	740.75	49.65	750.75	Downgradient
YGWC-43	7/9/2016	78.69	669.49	68.69	679.49	Downgradient

Notes:

1. ft BTOC indicates feet below top of casing.
2. ft MSL indicates feet mean sea level.

Table 1B
Non-Network Well Summary

Well ID	Installation Date (mm/dd/yyyy)	Bottom Depth (ft BTOC)	Bottom Elevation (ft MSL)	Depth to Top of Screen (ft MSL)	Top of Screen Elevation (ft MSL)	Purpose
PZ-37	07/6/2016	49.70	710.83	39.70	720.83	Piezometer

Notes:

1. ft BTOC indicates feet below top of casing.
2. ft MSL indicates feet mean sea level.

**Table 2A
Groundwater Sampling Event Summary (Network Wells)
Georgia Power – Plant Yates R6 CCR Landfill**

Well	Hydraulic Location	August 30-31, 2016	November 16, 2016	February 24-24, 2017	May 10, 2017	July 11, 2017	October 11,12, 2017	November 20-21, 2017	January 10-12, 2018	February 19-20, 2018	April 3-4, 2018	June 27-29, 2017	August 6-7, 2018	September 24, 2018	Apr. 2-9, 2019
Purpose of Sampling Event		Background	Background	Background	Background	Background	Background	Background	Background	Background	Background	Background	Background	Background	Detection
R6 CCR Landfill															
YGWA-39	Upgradient	--	--	--	--	--	BG01	BG02	BG03	BG04	BG05	BG06	BG07	BG08	D01
YGWA-40	Upgradient	--	--	--	--	--	BG01	BG02	BG03	BG04	BG05	BG06	BG07	BG08	D01
YGWC-38	Downgradient	--	--	--	--	--	BG01	BG02	BG03	BG04	BG05	BG06	BG07	BG08	D01
YGWC-41	Downgradient	--	--	--	--	--	BG01	BG02	BG03	BG04	BG05	BG06	BG07	BG08	D01
YGWC-42	Downgradient	BG01	BG02	BG03	BG04	BG05	BG06	--	--	--	BG07	--	--	BG08	D01
YGWC-43	Downgradient	BG01	BG02	BG03	BG04	BG05	BG06	--	--	--	BG07	--	--	BG08	D01

Notes:
 BGXX = Background Event
 D-XX = Detection Event Number
 -- = Did not sample

**Table 2B
Groundwater Sampling Event Summary (Non-Network Wells)
Georgia Power – Plant Yates R6 CCR Landfill**

Well	Hydraulic Location	October 11,12, 2017	November 20-21, 2017	January 10-12, 2018	February 19-20, 2018	April 3, 2018	June 27-29, 2017	August 6-7, 2018	September 24, 2018	Apr. 2-9, 2019
		Background	Background	Background	Background	Background	Background	Background	Background	Detection
R6 CCR Landfill										
PZ-37*	Water Level Only	BG01	BG02	BG03	BG04	BG05	BG06	BG07	BG08	-

Notes:

BGXX = Background Event

*Well no longer sampled due to proximity to closure activities

Table 3
Summary of Groundwater Elevations
March 2019

Well ID	TOC Elevation (ft MSL)	Depth-to- Water (ft BTOC)	Groundwater Elevation (ft MSL)
YGWA-39	817.99	22.41	795.58
YGWA-40	815.63	23.82	791.81
YGWC-38	799.45	28.97*	770.48
YGWC-41	803.83	25.62	778.21
YGWC-42	797.75	25.45	772.30
YGWC-43	744.99	14.08	730.91
PZ-37	760.53	16.46*	744.07

Notes:

1. ft BTOC indicates feet below top of casing.
 2. ft MSL indicates feet mean sea level.
 3. Depths to water measured March 25-26, 2019.
- * Depth to water recorded from transducer reading on March 25, 12:00 pm.

Table 4
GROUNDWATER FLOW VELOCITY CALCULATIONS
March 2019

Equation

$$v = \frac{K (dh/dl)}{P_e} \quad \text{where: } \begin{array}{l} v = \text{ground water velocity} \\ K = \text{hydraulic conductivity} \\ dh/dl = \text{hydraulic gradient} \\ P_e = \text{effective porosity} \end{array}$$

Values Used in Calculation

Value	Source
$K_{\max} = 3.7E-03$ cm/sec 10 ft/day	See note 1.
$K_{\min} = 9.7E-05$ cm/sec 0.28 ft/day	
$i_1 = 0.034$ unitless $i_2 = 0.045$ unitless $i_{\text{avg}} = 0.039$ unitless	Hydraulic gradient from YGWA-40 to YGWC-43 YGWA-39 to PZ-37 Average
$P_e = 0.20$ unitless	See note 2.

Minimum Flow Velocity

$$v_{\min} = \frac{(0.28)(0.039)}{0.20}$$

$$v_{\min} = 0.054 \text{ ft/day, or } 20 \text{ ft/year}$$

Maximum Flow Velocity

$$v_{\max} = \frac{(10)(0.039)}{0.20}$$

$$v_{\max} = 2.0 \text{ ft/day, or } 748 \text{ ft/year}$$

Notes

- (1) Slug tests performed by Atlantic Coast Consulting, Inc. (2017)
- (2) Default value for silty sands from Interim Final RCRA Investigation (EPA, 1989)

Table 5A
Summary of Background Groundwater Analytical Data
2016 - 2018

Substance	MCL/ (SMCL)	Well ID								
		YGWA-39	YGWA-39	YGWA-39	YGWA-39	YGWA-39	YGWA-39	YGWA-39	YGWA-39	
		10/11/2017	11/20/2017	1/11/2018	2/20/2018	4/3/2018	6/28/2018	8/7/2018	9/24/2018	
APPENDIX III	Boron	N/R	ND (0.0135 J)	ND (0.0251 J)	ND (0.0255 J)	ND	ND (0.033 J)	0.053	ND (0.024 J)	ND (0.028 J)
	Calcium	N/R	2.74	1.81	1.54	1.71	1.4	1.4	1.2	1.1
	Chloride	(250)	2.4	1.8	1.6	2.0	3.3	2.1	1.2	1.3
	Fluoride	4	ND	ND	ND	0.23	ND	ND	ND (0.048 J)	ND
	Sulfate	(250)	20	24	23	20.6	24.5	22.0	20.7	21.2
	TDS	(500)	68	139	153	87	85	88.0	89.0	82.0
APPENDIX IV	Antimony	0.006	ND (0.0006 J)	ND	ND	ND	ND	ND	ND	ND
	Arsenic	0.01	ND (0.0009 J)	ND	ND	ND	ND	ND	ND	ND
	Barium	2	ND (0.0092 J)	ND (0.0081 J)	ND (0.0077 J)	ND	ND	ND (0.0078 J)	ND (0.0078 J)	ND (0.0071 J)
	Beryllium	0.004	ND	ND	ND	ND	ND	ND	ND	ND
	Cadmium	0.005	ND	ND	ND	ND	ND	ND	ND	ND
	Chromium	0.1	ND	ND	ND	ND	ND	ND	ND	ND
	Cobalt	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Lead	0.015	ND (0.0001 J)	ND	ND (0.0002 J)	ND	ND	ND	ND	ND
	Lithium	N/R	ND (0.0018 J)	ND (0.0018 J)	ND (0.0019 J)	ND	ND (0.0022 J)	ND (0.0026 J)	ND (0.0024 J)	ND (0.0022 J)
	Mercury	0.002	ND	ND (0.00007 J)	ND	ND	ND	ND	ND	ND
	Molybdenum	N/R	ND (0.0094 J)	ND (0.0081 J)	ND (0.0074 J)	ND	ND (0.0060 J)	ND (0.0050 J)	ND (0.0045 J)	ND (0.0035 J)
	Radium	5	0.586 U	0.816 U	0.841 U	1.58	0.385 U	0.283 U	0.332 U	0.767 U
	Selenium	0.05	ND	ND	ND	ND	ND	ND	ND	ND (0.0015 J)
Thallium	0.002	ND	ND	ND	ND	ND	ND	ND	ND	

- Notes:
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 3. Results for substances are reported in milligrams per liter (mg/L). Radium results are reported in picocuries per liter (pCi/L).
 4. ND (Not Detected) indicates the substance was not detected above the analytical method detection limit (MDL).
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 6. N/R indicates a substance does not have an MCL or SMCL, but will be further evaluated statistically at the conclusion of all the background sampling events, as required by EPA's CCR rule.
 7. TDS indicates total dissolved solids.
 8. U indicates the substance 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.
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Table 5A
Summary of Background Groundwater Analytical Data
2016 - 2018

Substance	MCL/ (SMCL)	Well ID								
		YGWA-40	YGWA-40	YGWA-40	YGWA-40	YGWA-40	YGWA-40	YGWA-40	YGWA-40	
		10/12/2017	11/20/2017	1/10/2018	2/19/2018	4/3/2018	6/28/2018	8/7/2018	9/24/2018	
APPENDIX III	Boron	N/R	0.0401	0.156	0.150	0.146	0.12	0.16	0.12	0.099
	Calcium	N/R	2.90	10.4	10.2	ND	6.3	6.7	6.3	5.7
	Chloride	(250)	3.8	4.4	4.6	4.6	5.9	5.0	4.3	4.9
	Fluoride	4	ND	ND	ND	ND	ND	ND	ND	ND
	Sulfate	(250)	17	71	66	57.2	49.4	43.8	40.5	39.7
	TDS	(500)	74	179	140	119	106	112	103	107
APPENDIX IV	Antimony	0.006	ND	ND	ND	ND	ND	ND	ND	ND
	Arsenic	0.01	ND	ND	ND	ND	ND	ND	ND	ND
	Barium	2	0.0328	0.0671	0.0656	0.0598	0.045	0.047	0.048	0.042
	Beryllium	0.004	ND (0.0002 J)	ND (0.0003 J)	ND (0.0003 J)	ND	ND	ND (0.00029 J)	ND (0.00024 J)	ND (0.00019 J)
	Cadmium	0.005	ND	ND	ND	ND	ND	ND	ND	ND
	Chromium	0.1	ND	ND	ND	ND	ND	ND	ND	ND
	Cobalt	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Lead	0.015	ND (0.00009 J)	ND	ND	ND	ND	ND	ND	ND
	Lithium	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Mercury	0.002	ND	ND (0.00008 J)	ND	ND	ND	ND (0.000036 J)	ND	ND
	Molybdenum	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Radium	5	1.49	0.918 U	1.05	2.05	0.325 U	1.28	1.16	0.965 U
	Selenium	0.05	ND	ND (0.0042 J)	ND (0.0043 J)	ND	ND	ND (0.0032 J)	ND (0.0031 J)	ND (0.0026 J)
Thallium	0.002	ND	ND	ND	ND	ND	ND	ND	ND	

- Notes:
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 3. Results for substances are reported in milligrams per liter (mg/L). Radium results are reported in picocuries per liter (pCi/L).
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Table 5A
Summary of Background Groundwater Analytical Data
2016 - 2018

Substance	MCL/ (SMCL)	Well ID								
		YGWC-38	YGWC-38	YGWC-38	YGWC-38	YGWC-38	YGWC-38	YGWC-38	YGWC-38	
		10/12/2017	11/20/2017	1/12/2018	2/20/2018	4/3/2018	6/28/2018	8/7/2018	9/24/2018	
APPENDIX III	Boron	N/R	19.3	21.8	18.7	18.6	20.9	22.7	19.1	18.4
	Calcium	N/R	190	184	178	184	174	190	176	172
	Chloride	(250)	6.0	6.9	6.6	6.2	6.9	6.4	5.5	5.9
	Fluoride	4	ND	ND (0.20 J)	ND (0.21 J)	ND	0.41	0.43	ND	ND (0.034 J)
	Sulfate	(250)	940	980	880	905	872	869	879	872
	TDS	(500)	1360	1390	1400	1300	1390	1310	1340	1400
APPENDIX IV	Antimony	0.006	ND	ND	ND	ND	ND	ND	ND (0.0015 J)	ND
	Arsenic	0.01	ND (0.0023 J)	ND (0.0008 J)	ND (0.0010 J)	ND (0.00096 J)	ND (0.0015 J)	ND (0.0017 J)	ND (0.00072 J)	ND (0.0017 J)
	Barium	2	0.0269	0.0255	0.0236	0.0255	0.023	0.024	0.023	0.021
	Beryllium	0.004	0.0057	0.0053	0.0053	0.0053	0.0056	0.0059	0.0058	0.0051
	Cadmium	0.005	0.0030	0.0027	0.0029	0.0029	0.0027	0.0029	0.0027	0.0027
	Chromium	0.1	ND (0.0005 J)	ND	ND	ND	ND	ND	ND	ND
	Cobalt	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Lead	0.015	ND (0.0001 J)	ND (0.0001 J)	ND (0.0001 J)	ND	ND	ND	ND	ND
	Lithium	N/R	ND (0.0095 J)	ND (0.0083 J)	ND (0.0089 J)	ND (0.0082 J)	ND (0.0097 J)	ND (0.0093 J)	ND (0.0092 J)	ND (0.0083 J)
	Mercury	0.002	ND	ND (0.00008 J)	ND	ND	ND	ND (0.000037 J)	ND	ND
	Molybdenum	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Radium	5	1.24	0.342 U	1.04	1.60	0.726 U	1.06 U	1.21	1.52
	Selenium	0.05	0.265	0.246	0.249	0.253	0.23	0.23	0.20	0.20
Thallium	0.002	ND	ND	ND	ND	ND	ND	ND	ND	

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Table 5A
Summary of Background Groundwater Analytical Data
2016 - 2018

Substance	MCL/ (SMCL)	Well ID								
		YGWC-41	YGWC-41	YGWC-41	YGWC-41	YGWC-41	YGWC-41	YGWC-41	YGWC-41	
		10/12/2017	11/21/2017	1/11/2018	2/19/2018	4/3/2018	6/27/2018	8/7/2018	9/24/2018	
APPENDIX III	Boron	N/R	12.0	12.1	12.8	15.2	14.5	14.1	11.9	12.2
	Calcium	N/R	44.5	44.4	43.9	45.3	42.7	42.2	40.7	38.5
	Chloride	(250)	3.1	4.2	3.8	3.5	4.4	3.6	3.3	3.3
	Fluoride	4	ND	ND	ND	ND	ND	ND	ND (0.11 J)	ND
	Sulfate	(250)	400	430	390	414	406	357	346	358
	TDS	(500)	636	706	701	630	660	575	574	588
APPENDIX IV	Antimony	0.006	ND	ND	ND	ND	ND	ND	ND	ND
	Arsenic	0.01	ND (0.0011 J)	ND	ND	ND	ND (0.00072 J)	ND (0.00062 J)	ND	ND (0.0010 J)
	Barium	2	0.0394	0.0320	0.0300	0.0308	0.030	0.028	0.027	0.026
	Beryllium	0.004	0.0036	0.0036	0.0037	0.0039	0.0037	0.0038	0.0037	0.0032
	Cadmium	0.005	ND (0.0002 J)	ND (0.0003 J)	ND (0.0002 J)	ND	ND	ND (0.00025 J)	ND (0.00024 J)	ND (0.00021 J)
	Chromium	0.1	ND	ND	ND	ND	ND	ND	ND	ND
	Cobalt	N/R	ND (0.0011 J)	ND (0.0003 J)	ND (0.0003 J)	ND	ND	ND (0.00069 J)	ND	ND
	Lead	0.015	ND	ND	ND (0.00007 J)	ND	ND	ND (0.0011 J)	ND	ND
	Lithium	N/R	ND (0.0040 J)	ND (0.0043 J)	ND (0.0044 J)	ND	ND (0.0047 J)	ND (0.0042 J)	ND (0.0038 J)	ND (0.0037 J)
	Mercury	0.002	ND	ND (0.00006 J)	ND	ND	ND	ND	ND	ND
	Molybdenum	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Radium	5	0.641 U	2.01	0.919 U	1.82	0.974	0.429 U	0.579 U	1.39
	Selenium	0.05	0.0191	0.0687	0.0690	0.0710	0.067	0.066	0.061	0.061
Thallium	0.002	ND	ND	ND	ND	ND	ND	ND	ND	

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Table 5A
Summary of Background Groundwater Analytical Data
2016 - 2018

Substance	MCL/ (SMCL)	Well ID								
		YGWC-42	YGWC-42	YGWC-42	YGWC-42	YGWC-42	YGWC-42	YGWC-42	YGWC-42	
		8/30/2016	11/16/2016	2/27/2017	5/10/2017	7/11/2017	10/12/2017	4/4/2018	9/20/2018	
APPENDIX III	Boron	N/R	24.7	16.4	17.9	20.4	25.2	20.0	22.7	20.3
	Calcium	N/R	133	125	139	130	172	144	137	108
	Chloride	(250)	4.4	4.7	4.7	4.4	4.7	4.3	3.7	3.8
	Fluoride	4	ND (0.02 J)	ND (0.07 J)	ND (0.06 J)	ND	ND	ND	ND	ND (0.041 J)
	Sulfate	(250)	980	940	940	1200	1300	1100	1020	810
	TDS	(500)	1650	1420	1640	1630	1800	1600	1520	1240
APPENDIX IV	Antimony	0.006	ND	ND	ND	ND	ND	ND	ND	ND
	Arsenic	0.01	ND (0.0023 J)	ND (0.0017 J)	ND (0.0020 J)	ND (0.0022 J)	ND (0.0030 J)	ND (0.0031 J)	ND (0.0023 J)	ND (0.0018 J)
	Barium	2	0.0455	0.0541	0.0573	0.0517	0.0451	0.0429	0.041	0.038
	Beryllium	0.004	ND (0.00009 J)	ND	ND	ND (0.00009 J)	ND (0.0001 J)	ND	ND	ND
	Cadmium	0.005	ND	ND	ND	ND (0.0002 J)	ND (0.0005 J)	ND (0.0006 J)	ND	ND (0.00020 J)
	Chromium	0.1	ND	ND	ND	ND (0.0006 J)	ND	ND	ND	ND
	Cobalt	N/R	ND (0.0025 J)	ND (0.0020 J)	ND (0.0021 J)	ND (0.0021 J)	ND (0.0014 J)	ND (0.0017 J)	ND	ND (0.0030 J)
	Lead	0.015	ND	ND (0.0002 J)	ND	ND (0.00009 J)	ND	ND	ND	ND
	Lithium	N/R	ND (0.0257 J)	ND (0.0221 J)	ND (0.0208 J)	ND (0.0316 J)	ND (0.0281 J)	ND (0.0331 J)	ND (0.037 J)	ND (0.049 J)
	Mercury	0.002	ND	ND	ND	ND	ND	ND	ND	ND (0.000048 J)
	Molybdenum	N/R	ND (0.0019 J)	ND (0.0027 J)	ND (0.0031 J)	ND (0.0017 J)	ND (0.0014 J)	ND	ND	ND
	Radium	5	2.99	4.01	2.50	2.55	3.94	3.57	1.90	1.94
	Selenium	0.05	0.0711	0.0313	0.0316	0.0530	0.0697	0.0594	0.055	0.041
Thallium	0.002	ND	ND	ND	ND	ND	ND	ND	ND	

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Table 5A
Summary of Background Groundwater Analytical Data
2016 - 2018

Substance	MCL/ (SMCL)	Well ID								
		YGWC-43	YGWC-43	YGWC-43	YGWC-43	YGWC-43	YGWC-43	YGWC-43	YGWC-43	
		8/31/2016	11/16/2016	2/24/2017	5/10/2017	7/11/2017	10/12/2017	4/4/2018	9/20/2018	
APPENDIX III	Boron	N/R	0.169	0.406	0.725	0.955	0.994	1.15	1.2	2.1
	Calcium	N/R	3.40	3.79	6.42	7.90	6.71	7.05	8.6	ND (15.9 J)
	Chloride	(250)	1.5	1.7	1.5	1.2	1.5	1.6	1.8	1.9
	Fluoride	4	ND (0.12 J)	ND (0.20 J)	ND (0.21 J)	ND (0.04 J)	ND (0.20 J)	ND (0.10 J)	ND	ND
	Sulfate	(250)	34	240	89	100	110	120	160	247
	TDS	(500)	80	112	147	203	238	287	292	434
APPENDIX IV	Antimony	0.006	ND	ND	ND	ND	ND	ND	ND	ND
	Arsenic	0.01	ND	ND	ND	ND	ND	ND	ND	ND (0.00099 J)
	Barium	2	ND (0.0065 J)	ND (0.0092 J)	0.0144	0.0173	0.0183	0.0205	0.024	0.035
	Beryllium	0.004	ND	ND	ND	ND	ND	ND (0.0001 J)	ND	ND (0.00029 J)
	Cadmium	0.005	ND	ND	ND	ND	ND	ND	ND	ND
	Chromium	0.1	ND	ND	ND	ND (0.0005 J)	ND	ND	ND	ND
	Cobalt	N/R	ND	ND	ND	ND	ND	ND (0.0006 J)	ND	ND (0.0034 J)
	Lead	0.015	ND	ND	ND	ND (0.00008 J)	ND	ND	ND	ND
	Lithium	N/R	ND (0.0060 J)	ND (0.0095 J)	ND (0.0104 J)	ND (0.0123 J)	ND (0.0131 J)	ND (0.0130 J)	ND (0.016 J)	ND (0.019 J)
	Mercury	0.002	ND	ND	ND	ND	ND	ND	ND	ND (0.000052 J)
	Molybdenum	N/R	ND (0.0022 J)	ND	ND	ND	ND	ND	ND	ND
	Radium	5	0.926 U	0.773 U	0.661 U	1.27	1.02	1.58	1.71	2.80
Selenium	0.05	ND	ND	ND	ND	ND	ND	ND	ND	
Thallium	0.002	ND	ND	ND	ND	ND	ND	ND	ND	

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Table 5A
Summary of Background Groundwater Analytical Data
2016 - 2018

Substance	MCL/ (SMCL)	Well ID								
		PZ-37	PZ-37	PZ-37	PZ-37	PZ-37	PZ-37	PZ-37	PZ-37	
		10/12/2017	11/21/2017	1/11/2018	2/20/2018	4/3/2018	6/29/2018	8/6/2018	9/24/2018	
APPENDIX III	Boron	N/R	15.4	17.2	15.8	19.5	17.5	20.6	15.9	16.5
	Calcium	N/R	122	118	119	124	114	129	114	115
	Chloride	(250)	5.4	6.5	5.0	5.2	4.8	5.7	4.8	4.9
	Fluoride	4	ND	ND (0.26 J)	ND	0.45	0.31	ND	ND (0.23 J)	ND
	Sulfate	(250)	650	700	590	677	615	634	623	674
	TDS	(500)	1060	1100	1020	1050	1080	979	1020	1090
APPENDIX IV	Antimony	0.006	ND	ND	ND	ND	ND	ND	ND	ND
	Arsenic	0.01	ND (0.0014 J)	ND (0.0008 J)	ND (0.0006 J)	ND	ND (0.0012 J)	ND (0.0011 J)	ND	ND (0.00094 J)
	Barium	2	0.0640	0.0579	0.0549	0.0593	0.051	0.054	0.048	0.047
	Beryllium	0.004	ND (0.0004 J)	ND (0.0004 J)	ND (0.0003 J)	ND	ND	ND (0.00033 J)	ND (0.00020 J)	ND (0.00029 J)
	Cadmium	0.005	ND (0.0002 J)	ND (0.0002 J)	ND (0.0004 J)	ND	ND	ND (0.00099 J)	ND (0.00063 J)	ND (0.00069 J)
	Chromium	0.1	ND (0.0019 J)	ND (0.0017 J)	ND (0.0010 J)	ND	ND	ND	ND	ND
	Cobalt	N/R	ND (0.0078 J)	ND (0.0097 J)	0.0131	0.0162	0.015	0.013	ND (0.0053 J)	ND (0.0071 J)
	Lead	0.015	ND (0.0002 J)	ND (0.0002 J)	ND (0.0001 J)	ND	ND	ND	ND	ND
	Lithium	N/R	ND (0.0271 J)	ND (0.0255 J)	ND (0.0271 J)	ND	ND (0.027 J)	ND (0.032 J)	ND (0.033 J)	ND (0.028 J)
	Mercury	0.002	ND	ND (0.00006 J)	ND	ND	ND	ND	ND	ND
	Molybdenum	N/R	ND (0.0022 J)	ND (0.0016 J)	ND (0.0015 J)	ND	ND	ND (0.0021 J)	ND	ND
	Radium	5	1.83	1.33	1.53	2.75	1.47	1.69	1.69	2.26
	Selenium	0.05	0.234	0.225	0.168	0.315	0.28	0.26	0.21	0.33
Thallium	0.002	ND	ND	ND	ND	ND	ND	ND	ND	

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 6. N/R indicates a substance does not have an MCL or SMCL, but will be further evaluated statistically at the conclusion of all the background sampling events, as required by EPA's CCR rule.
 7. TDS indicates total dissolved solids.
 8. U indicates the substance 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.
 9. Appendix III = indicator parameters evaluated during Detection Monitoring; Appendix IV = parameters evaluated during Assessment Monitoring.
 10. Background Data for additional upgradient monitoring wells presented in Plant Yates AP-3, B, and B' 2017 Annual Groundwater Monitoring and Corrective Action Report.

Table 5B
Summary of Groundwater Analytical Data
March 2019

	Substance	MCL/ (SMCL)	YGWA-39	YGWA-40	YGWC-38	YGWC-41	YGWC-42	YGWC-43
			3/27/2019	3/26/2019	3/27/2019	3/28/2019	3/27/2019	3/28/2019
Appendix III	Boron	N/R	ND (0.017 J)	0.096	16.7	7.1	20.3	1.8
	Calcium	N/R	1.5	5.6	155.0	26.0	109	8.9
	Chloride	(250)	1.4	4.4	6.2	3.2	3.9	1.8
	Fluoride	4	ND	ND	ND (0.24 J)	ND (0.10 J)	ND	ND (0.078 J)
	Sulfate	(250)	17.7	34.3	851	258	831	181
	TDS	(500)	75.0	90.0	1190	372	1100	323

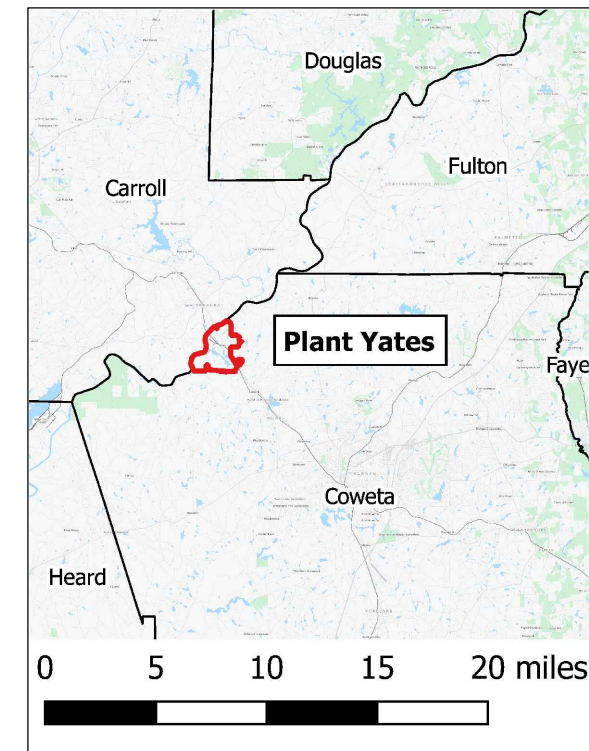
Notes:

1. MCL indicates Environmental Protection Agency (EPA) and Georgia Environmental Protection Division (EPD) maximum contaminant level.
2. (SMCL) indicates a secondary MCL that is established by EPA as a general guideline only (not enforced).
3. Results for substances are reported in milligrams per liter (mg/L). Radium results are reported in picocuries per liter (pCi/L).
4. ND (Not Detected) indicates the substance was not detected above the laboratory method detection limit (MDL).
5. ND (value 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 value.
6. N/R indicates a substance does not have an MCL or SMCL, but will be further evaluated statistically, as required by EPA's CCR rule.
7. TDS indicates total dissolved solids.
8. Appendix III = indicator parameters evaluated during Detection Monitoring; Appendix IV = parameters evaluated during Assessment Monitoring.

**Table 6
Statistical Method Summary
March 2019**

Plant Yates R6 CCR Landfill Statistical Method Summary		
Monitoring Well Network	Upgradient Wells	YGWA-4I, YGWA-5I, YGWA-5D, YGWA-17S, YGWA-18S, YGWA-18I, YGWA-20S, YGWA-21I, YGWA-39 and YGWA-40
	Downgradient Wells	YGWC-38, YGWC-41, YGWC-42, and YGWC-43
CCR Monitoring Parameters	Appendix III (Detection Monitoring)	Boron, Calcium, Chloride, Fluoride, pH, Sulfate, and TDS
	Appendix IV (Assessment Monitoring)	Antimony, Arsenic, Barium, Beryllium, Cadmium, Chromium, Cobalt, combined Radium 226 + 228, Fluoride, Lead, Lithium, Mercury, Molybdenum, Selenium, and Thallium
Statistical Methodology	Data Screening Proposed Background	Evaluate outliers, trends, and seasonality when sufficient data are available
	Statistical Limits	Interwell (boron, calcium, fluoride, sulfate, and TDS) or intrawell (pH and chloride) statistical limits are on constituent specific basis, depending on the appropriateness of the method as determined by the Analysis of Variance

FIGURES



ACC
ATLANTIC COAST CONSULTING, INC.
 1150 Northmeadow Pkwy.
 Suite 100
 Roswell, GA 30076
 770.594.5998
 www.atlcc.net

PROJECT:
PLANT YATES

708 DYER ROAD
 NEWNAN, GEORGIA

REVISIONS

Drawn by: **MM** Checked by: **EP**

PROJECT NUMBER:
IO54-110
 July 2019

SITE LOCATION MAP
 FIGURE **1**



ATLANTIC COAST CONSULTING, INC.

1150 Northmeadow Pkwy.
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PROJECT:
PLANT YATES

708 DYER ROAD
NEWNAN, GEORGIA

REVISIONS

Drawn by: MM Checked by: EP

PROJECT NUMBER:
IO54-110
July 2019

WELL LOCATION
MAP

FIGURE 2



LEGEND

EXISTING	DESCRIPTION
	RAILROAD
	ACCESS ROAD
	PERMITTED UNIT BOUNDARY
	GWA-2 GROUNDWATER MONITORING WELL
	PZ-01S PIEZOMETER

800 0 400 800 1600
SCALE: 1" = 800' (IN FEET)



ATLANTIC COAST CONSULTING, INC.
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 Roswell, GA 30076
 770.594.5998
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PROJECT:
PLANT YATES

708 DYER ROAD
 NEWNAN, GEORGIA

REVISIONS

Drawn by: MM Checked by: EP

PROJECT NUMBER:
 IO54-110
 July 2019

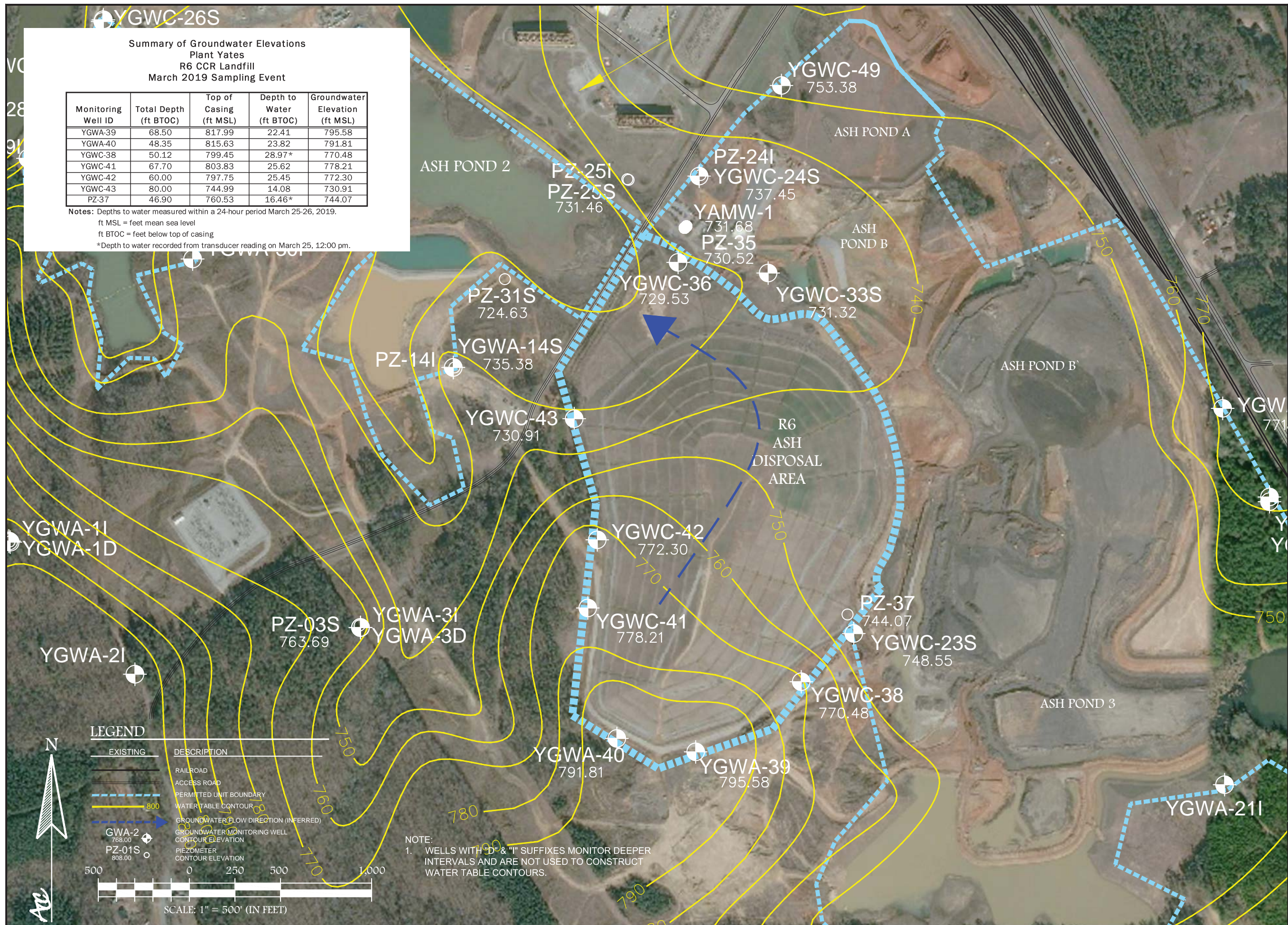
**MARCH 2019
 WATER TABLE
 CONTOUR MAP**

FIGURE 3

**Summary of Groundwater Elevations
 Plant Yates
 R6 CCR Landfill
 March 2019 Sampling Event**

Monitoring Well ID	Total Depth (ft BTOC)	Top of Casing (ft MSL)	Depth to Water (ft BTOC)	Groundwater Elevation (ft MSL)
YGWA-39	68.50	817.99	22.41	795.58
YGWA-40	48.35	815.63	23.82	791.81
YGWC-38	50.12	799.45	28.97*	770.48
YGWC-41	67.70	803.83	25.62	778.21
YGWC-42	60.00	797.75	25.45	772.30
YGWC-43	80.00	744.99	14.08	730.91
PZ-37	46.90	760.53	16.46*	744.07

Notes: Depths to water measured within a 24-hour period March 25-26, 2019.
 ft MSL = feet mean sea level
 ft BTOC = feet below top of casing
 *Depth to water recorded from transducer reading on March 25, 12:00 pm.



APPENDICES

APPENDIX A

LABORATORY ANALYTICAL AND FIELD SAMPLING
REPORTS

Product Name: Low-Flow System

Date: 2016-08-30 13:41:41

Project Information:

Operator Name Michael Hutchinson
Company Name AECOM
Project Name Plant Yates
Site Name YGWC-42
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 449622
Turbidity Make/Model LaMotte 2020 we

Pump Information:

Pump Model/Type Bladder
Tubing Type poly
Tubing Diameter 0.17 in
Tubing Length 65 ft

Pump placement from TOC 55 ft

Well Information:

Well ID YGWC-42
Well diameter 2 in
Well Total Depth 60 ft
Screen Length 10 ft
Depth to Water 27.53 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.4801225 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 37 in
Total Volume Pumped 15 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%	+/- 10		+/- 0.2	+/- 10
Last 5	13:06:37	4799.95	19.93	5.72	1713.25	6.73	30.71	0.70	-33.32
Last 5	13:11:37	5099.95	20.13	5.69	1721.15	6.81	30.55	0.75	-28.13
Last 5	13:16:37	5399.95	20.22	5.66	1722.12	1.95	30.50	0.78	-21.76
Last 5	13:21:37	5699.95	19.77	5.64	1722.53	2.76	30.52	0.79	-15.41
Last 5	13:26:37	5999.95	19.42	5.64	1720.26	3.13	30.61	0.79	-12.37
Variance 0			0.09	-0.03	0.97			0.02	6.37
Variance 1			-0.45	-0.01	0.41			0.02	6.35
Variance 2			-0.35	-0.00	-2.27			-0.00	3.03

Notes

Grab Samples

YGWC-42

Sample time: 1329

Product Name: Low-Flow System

Date: 2016-08-31 16:49:38

Project Information:

Operator Name Michael Hutchinson
Company Name AECOM
Project Name Plant Yates
Site Name YGWC-43
Latitude 33° 27' 28.91"
Longitude -84° -53' -49.4"
Sonde SN 449622
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Peristaltic
Tubing Type poly
Tubing Diameter 0.17 in
Tubing Length 80 ft

Pump placement from TOC 75 ft

Well Information:

Well ID YGWC-43
Well diameter 2 in
Well Total Depth 79.79 ft
Screen Length 10 ft
Depth to Water 14.31 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.4470738 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 2.64 in
Total Volume Pumped 9.75 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%	+/- 10		+/- 0.2	+/- 10
Last 5	16:27:44	3000.01	22.13	7.27	183.46	5.20	14.49	0.08	-188.88
Last 5	16:32:44	3300.02	22.22	7.26	185.51	4.09	14.49	0.08	-188.58
Last 5	16:37:44	3600.00	22.00	7.26	185.85	3.55	14.52	0.08	-188.38
Last 5	16:42:44	3900.00	22.10	7.27	186.63	3.52	14.52	0.08	-189.09
Last 5	16:47:44	4199.94	22.27	7.27	186.18	4.03	14.53	0.07	-189.80
Variance 0			-0.22	0.00	0.34			-0.00	0.20
Variance 1			0.10	0.01	0.78			-0.00	-0.71
Variance 2			0.17	0.00	-0.45			-0.01	-0.71

Notes

Grab Samples

YGWC-43
Sample time-1650



PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Laboratory Report

Prepared For:

**Georgia Power
2480 Maner Road
Atlanta, GA 30339**

Attention: Mr. Joju Abraham

Report Number: AZH0941

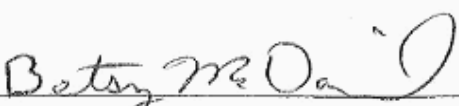
September 07, 2016

Project: CCR Event

Project #: Plant Yates

We appreciate the opportunity to provide the analytical support for your project. The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Approved:



Project Manager

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All test results relate only to the samples analyzed.



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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

September 07, 2016

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
YGWA-47	AZH0941-01	Ground Water	08/30/16 12:10	08/31/16 09:00
Dup-1	AZH0941-02	Ground Water	08/30/16 00:00	08/31/16 09:00
YGWC-42	AZH0941-03	Ground Water	08/30/16 13:29	08/31/16 09:00
FB-1	AZH0941-04	DI Water	08/30/16 14:50	08/31/16 09:00



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Georgia Power
 2480 Maner Road
 Atlanta GA, 30339

Attention: Mr. Joju Abraham

September 07, 2016

Report No.: AZH0941

Project: CCR Event

Client ID: YGWA-47

Lab Number ID: AZH0941-01

Date/Time Sampled: 8/30/2016 12:10:00PM

Date/Time Received: 8/31/2016 9:00:00AM

Matrix: Ground Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	319	25	10	mg/L	SM 2540 C		1	08/31/16 15:15	08/31/16 15:15	6080844	JPT
Inorganic Anions											
Chloride	5.2	0.25	0.01	mg/L	EPA 300.0	B-01	1	08/31/16 10:53	08/31/16 12:56	6080842	RLC
Fluoride	0.09	0.30	0.02	mg/L	EPA 300.0	J	1	08/31/16 10:53	08/31/16 12:56	6080842	RLC
Sulfate	160	10	0.51	mg/L	EPA 300.0		10	08/31/16 10:53	09/01/16 19:38	6080842	RLC
Metals, Total											
Antimony	0.0028	0.0030	0.0008	mg/L	EPA 6020B	B-01, J	1	09/01/16 09:25	09/01/16 14:40	6080862	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	09/01/16 09:25	09/01/16 14:40	6080862	CSW
Barium	0.0413	0.0100	0.0004	mg/L	EPA 6020B		1	09/01/16 09:25	09/01/16 14:40	6080862	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	09/01/16 09:25	09/01/16 14:40	6080862	CSW
Boron	0.0166	0.100	0.0064	mg/L	EPA 6020B	J	1	09/01/16 09:25	09/01/16 14:40	6080862	CSW
Cadmium	0.0001	0.0010	0.00007	mg/L	EPA 6020B	J	1	09/01/16 09:25	09/01/16 14:40	6080862	CSW
Calcium	20.9	2.50	0.155	mg/L	EPA 6020B		5	09/01/16 09:25	09/03/16 12:57	6080862	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	09/01/16 09:25	09/01/16 14:40	6080862	CSW
Cobalt	0.0073	0.0100	0.0005	mg/L	EPA 6020B	J	1	09/01/16 09:25	09/01/16 14:40	6080862	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	09/01/16 09:25	09/01/16 14:40	6080862	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	09/01/16 09:25	09/01/16 14:40	6080862	CSW
Selenium	0.0017	0.0100	0.0010	mg/L	EPA 6020B	J	1	09/01/16 09:25	09/01/16 14:40	6080862	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	09/01/16 09:25	09/01/16 14:40	6080862	CSW
Lithium	0.0061	0.0500	0.0021	mg/L	EPA 6020B	J	1	09/01/16 09:25	09/01/16 14:40	6080862	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	09/01/16 09:35	09/01/16 13:55	6080864	MTC



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Georgia Power
 2480 Maner Road
 Atlanta GA, 30339

Attention: Mr. Joju Abraham

September 07, 2016

Report No.: AZH0941

Project: CCR Event

Client ID: Dup-1

Lab Number ID: AZH0941-02

Date/Time Sampled: 8/30/2016 12:00:00AM

Date/Time Received: 8/31/2016 9:00:00AM

Matrix: Ground Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	303	25	10	mg/L	SM 2540 C		1	08/31/16 15:15	08/31/16 15:15	6080844	JPT
Inorganic Anions											
Chloride	5.2	0.25	0.01	mg/L	EPA 300.0	B-01	1	08/31/16 10:53	08/31/16 13:37	6080842	RLC
Fluoride	0.08	0.30	0.02	mg/L	EPA 300.0	J	1	08/31/16 10:53	08/31/16 13:37	6080842	RLC
Sulfate	170	10	0.51	mg/L	EPA 300.0		10	08/31/16 10:53	09/01/16 19:59	6080842	RLC
Metals, Total											
Antimony	0.0008	0.0030	0.0008	mg/L	EPA 6020B	B-01, J	1	09/01/16 09:25	09/01/16 14:46	6080862	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	09/01/16 09:25	09/01/16 14:46	6080862	CSW
Barium	0.0424	0.0100	0.0004	mg/L	EPA 6020B		1	09/01/16 09:25	09/01/16 14:46	6080862	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	09/01/16 09:25	09/01/16 14:46	6080862	CSW
Boron	0.0146	0.100	0.0064	mg/L	EPA 6020B	J	1	09/01/16 09:25	09/01/16 14:46	6080862	CSW
Cadmium	0.0001	0.0010	0.00007	mg/L	EPA 6020B	J	1	09/01/16 09:25	09/01/16 14:46	6080862	CSW
Calcium	22.6	2.50	0.155	mg/L	EPA 6020B		5	09/01/16 09:25	09/03/16 13:03	6080862	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	09/01/16 09:25	09/01/16 14:46	6080862	CSW
Cobalt	0.0079	0.0100	0.0005	mg/L	EPA 6020B	J	1	09/01/16 09:25	09/01/16 14:46	6080862	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	09/01/16 09:25	09/01/16 14:46	6080862	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	09/01/16 09:25	09/01/16 14:46	6080862	CSW
Selenium	0.0021	0.0100	0.0010	mg/L	EPA 6020B	J	1	09/01/16 09:25	09/01/16 14:46	6080862	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	09/01/16 09:25	09/01/16 14:46	6080862	CSW
Lithium	0.0059	0.0500	0.0021	mg/L	EPA 6020B	J	1	09/01/16 09:25	09/01/16 14:46	6080862	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	09/01/16 09:35	09/01/16 13:57	6080864	MTC



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Georgia Power
 2480 Maner Road
 Atlanta GA, 30339

Attention: Mr. Joju Abraham

September 07, 2016

Report No.: AZH0941

Project: CCR Event

Client ID: YGWC-42

Lab Number ID: AZH0941-03

Date/Time Sampled: 8/30/2016 1:29:00PM

Date/Time Received: 8/31/2016 9:00:00AM

Matrix: Ground Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	1650	25	10	mg/L	SM 2540 C		1	08/31/16 15:15	08/31/16 15:15	6080844	JPT
Inorganic Anions											
Chloride	4.4	0.25	0.01	mg/L	EPA 300.0	B-01	1	08/31/16 10:53	08/31/16 13:58	6080842	RLC
Fluoride	0.02	0.30	0.02	mg/L	EPA 300.0	J	1	08/31/16 10:53	08/31/16 13:58	6080842	RLC
Sulfate	980	50	2.6	mg/L	EPA 300.0		50	08/31/16 10:53	09/01/16 20:20	6080842	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	09/01/16 09:25	09/01/16 14:52	6080862	CSW
Arsenic	0.0023	0.0050	0.0016	mg/L	EPA 6020B	J	1	09/01/16 09:25	09/01/16 14:52	6080862	CSW
Barium	0.0455	0.0100	0.0004	mg/L	EPA 6020B		1	09/01/16 09:25	09/01/16 14:52	6080862	CSW
Beryllium	0.00009	0.0030	0.00008	mg/L	EPA 6020B	J	1	09/01/16 09:25	09/01/16 14:52	6080862	CSW
Boron	24.7	5.00	0.321	mg/L	EPA 6020B		50	09/01/16 09:25	09/03/16 13:09	6080862	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	09/01/16 09:25	09/01/16 14:52	6080862	CSW
Calcium	133	25.0	1.55	mg/L	EPA 6020B		50	09/01/16 09:25	09/03/16 13:09	6080862	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	09/01/16 09:25	09/01/16 14:52	6080862	CSW
Cobalt	0.0025	0.0100	0.0005	mg/L	EPA 6020B	J	1	09/01/16 09:25	09/01/16 14:52	6080862	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	09/01/16 09:25	09/01/16 14:52	6080862	CSW
Molybdenum	0.0019	0.0100	0.0017	mg/L	EPA 6020B	J	1	09/01/16 09:25	09/01/16 14:52	6080862	CSW
Selenium	0.0711	0.0100	0.0010	mg/L	EPA 6020B		1	09/01/16 09:25	09/01/16 14:52	6080862	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	09/01/16 09:25	09/01/16 14:52	6080862	CSW
Lithium	0.0257	0.0500	0.0021	mg/L	EPA 6020B	J	1	09/01/16 09:25	09/01/16 14:52	6080862	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	09/01/16 09:35	09/01/16 13:59	6080864	MTC



PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
 110 Technology Parkway, Peachtree Corners, GA 30092
 (770) 734-4200 FAX (770) 734-4201

Georgia Power
 2480 Maner Road
 Atlanta GA, 30339

Attention: Mr. Joju Abraham

September 07, 2016

Report No.: AZH0941

Project: CCR Event

Client ID: FB-1

Lab Number ID: AZH0941-04

Date/Time Sampled: 8/30/2016 2:50:00PM

Date/Time Received: 8/31/2016 9:00:00AM

Matrix: DI Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	ND	25	10	mg/L	SM 2540 C		1	09/01/16 12:00	09/01/16 12:00	6090007	JPT
Inorganic Anions											
Chloride	0.37	0.25	0.01	mg/L	EPA 300.0	B-01	1	08/31/16 10:53	08/31/16 14:18	6080842	RLC
Fluoride	ND	0.30	0.02	mg/L	EPA 300.0		1	08/31/16 10:53	08/31/16 14:18	6080842	RLC
Sulfate	0.58	1.0	0.05	mg/L	EPA 300.0	J	1	08/31/16 10:53	08/31/16 14:18	6080842	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	09/01/16 09:25	09/01/16 14:58	6080862	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	09/01/16 09:25	09/01/16 14:58	6080862	CSW
Barium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	09/01/16 09:25	09/01/16 14:58	6080862	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	09/01/16 09:25	09/01/16 14:58	6080862	CSW
Boron	0.0642	0.100	0.0064	mg/L	EPA 6020B	J	1	09/01/16 09:25	09/01/16 14:58	6080862	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	09/01/16 09:25	09/01/16 14:58	6080862	CSW
Calcium	ND	0.500	0.0311	mg/L	EPA 6020B		1	09/01/16 09:25	09/01/16 14:58	6080862	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	09/01/16 09:25	09/01/16 14:58	6080862	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	09/01/16 09:25	09/01/16 14:58	6080862	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	09/01/16 09:25	09/01/16 14:58	6080862	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	09/01/16 09:25	09/01/16 14:58	6080862	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	09/01/16 09:25	09/01/16 14:58	6080862	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	09/01/16 09:25	09/01/16 14:58	6080862	CSW
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	09/01/16 09:25	09/01/16 14:58	6080862	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	09/01/16 09:35	09/01/16 14:02	6080864	MTC



PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
 110 Technology Parkway, Peachtree Corners, GA 30092
 (770) 734-4200 FAX (770) 734-4201

Georgia Power
 2480 Maner Road
 Atlanta GA, 30339

Attention: Mr. Joju Abraham

September 07, 2016

Report No.: AZH0941

General Chemistry - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6080844 - SM 2540 C											
Blank (6080844-BLK1)						Prepared & Analyzed: 08/31/16					
Total Dissolved Solids	ND	25	10	mg/L							
LCS (6080844-BS1)						Prepared & Analyzed: 08/31/16					
Total Dissolved Solids	387	25	10	mg/L	400.00		97	84-108			
Duplicate (6080844-DUP1)						Source: AZH0946-03 Prepared & Analyzed: 08/31/16					
Total Dissolved Solids	131	25	10	mg/L		136			4	10	
Duplicate (6080844-DUP2)						Source: AZH0961-02 Prepared & Analyzed: 08/31/16					
Total Dissolved Solids	360	25	10	mg/L		365			1	10	
Batch 6090007 - SM 2540 C											
Blank (6090007-BLK1)						Prepared & Analyzed: 09/01/16					
Total Dissolved Solids	ND	25	10	mg/L							
LCS (6090007-BS1)						Prepared & Analyzed: 09/01/16					
Total Dissolved Solids	396	25	10	mg/L	400.00		99	84-108			
Duplicate (6090007-DUP1)						Source: AZH0981-01 Prepared & Analyzed: 09/01/16					
Total Dissolved Solids	127	25	10	mg/L		141			10	10	
Duplicate (6090007-DUP2)						Source: AZH0981-05 Prepared & Analyzed: 09/01/16					
Total Dissolved Solids	264	25	10	mg/L		254			4	10	



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September 07, 2016

Report No.: AZH0941

Inorganic Anions - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6080842 - EPA 300.0											
Blank (6080842-BLK1)						Prepared & Analyzed: 08/31/16					
Chloride	0.03	0.25	0.01	mg/L							J
Fluoride	ND	0.30	0.02	mg/L							
Sulfate	ND	1.0	0.05	mg/L							
LCS (6080842-BS1)						Prepared & Analyzed: 08/31/16					
Chloride	9.83	0.25	0.01	mg/L	10.010		98	90-110			
Fluoride	10.1	0.30	0.02	mg/L	10.010		101	90-110			
Sulfate	9.98	1.0	0.05	mg/L	10.010		100	90-110			
Matrix Spike (6080842-MS1)						Source: AZH0942-01 Prepared & Analyzed: 08/31/16					
Chloride	16.1	0.25	0.01	mg/L	10.010	5.97	101	90-110			
Fluoride	12.9	0.30	0.02	mg/L	10.010	0.78	121	90-110			QM-05
Sulfate	202	1.0	0.05	mg/L	10.010	216	NR	90-110			QM-05
Matrix Spike (6080842-MS2)						Source: AZH0946-03 Prepared & Analyzed: 08/31/16					
Chloride	13.2	0.25	0.01	mg/L	10.010	3.11	101	90-110			
Fluoride	10.4	0.30	0.02	mg/L	10.010	0.06	104	90-110			
Sulfate	12.1	1.0	0.05	mg/L	10.010	2.06	100	90-110			
Matrix Spike Dup (6080842-MSD1)						Source: AZH0942-01 Prepared & Analyzed: 08/31/16					
Chloride	15.8	0.25	0.01	mg/L	10.010	5.97	99	90-110	2	15	
Fluoride	13.3	0.30	0.02	mg/L	10.010	0.78	125	90-110	3	15	QM-05
Sulfate	202	1.0	0.05	mg/L	10.010	216	NR	90-110	0.4	15	QM-05



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Report No.: AZH0941

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6080862 - EPA 3005A											
Blank (6080862-BLK1)						Prepared & Analyzed: 09/01/16					
Antimony	0.0012	0.0030	0.0008	mg/L							J
Arsenic	ND	0.0050	0.0016	mg/L							
Barium	ND	0.0100	0.0004	mg/L							
Beryllium	ND	0.0030	0.00008	mg/L							
Boron	ND	0.100	0.0064	mg/L							
Cadmium	ND	0.0010	0.00007	mg/L							
Calcium	ND	0.500	0.0311	mg/L							
Chromium	ND	0.0100	0.0009	mg/L							
Cobalt	ND	0.0100	0.0005	mg/L							
Copper	ND	0.0050	0.0005	mg/L							
Lead	ND	0.0050	0.0001	mg/L							
Molybdenum	ND	0.0100	0.0017	mg/L							
Nickel	ND	0.0050	0.0006	mg/L							
Selenium	ND	0.0100	0.0010	mg/L							
Silver	ND	0.0050	0.0005	mg/L							
Thallium	ND	0.0010	0.0002	mg/L							
Vanadium	ND	0.0100	0.0071	mg/L							
Zinc	ND	0.0100	0.0021	mg/L							
Lithium	ND	0.0500	0.0021	mg/L							
LCS (6080862-BS1)						Prepared & Analyzed: 09/01/16					
Antimony	0.103	0.0030	0.0008	mg/L	0.10000		103	80-120			
Arsenic	0.100	0.0050	0.0016	mg/L	0.10000		100	80-120			
Barium	0.0966	0.0100	0.0004	mg/L	0.10000		97	80-120			
Beryllium	0.0964	0.0030	0.00008	mg/L	0.10000		96	80-120			
Boron	0.942	0.100	0.0064	mg/L	1.0000		94	80-120			
Cadmium	0.0996	0.0010	0.00007	mg/L	0.10000		100	80-120			
Calcium	0.943	0.500	0.0311	mg/L	1.0000		94	80-120			
Chromium	0.103	0.0100	0.0009	mg/L	0.10000		103	80-120			
Cobalt	0.0969	0.0100	0.0005	mg/L	0.10000		97	80-120			
Copper	0.0996	0.0050	0.0005	mg/L	0.10000		100	80-120			
Lead	0.0967	0.0050	0.0001	mg/L	0.10000		97	80-120			
Molybdenum	0.0995	0.0100	0.0017	mg/L	0.10000		100	80-120			
Nickel	0.0956	0.0050	0.0006	mg/L	0.10000		96	80-120			
Selenium	0.0980	0.0100	0.0010	mg/L	0.10000		98	80-120			
Silver	0.0982	0.0050	0.0005	mg/L	0.10000		98	80-120			
Thallium	0.0969	0.0010	0.0002	mg/L	0.10000		97	80-120			
Vanadium	0.104	0.0100	0.0071	mg/L	0.10000		104	80-120			
Zinc	0.105	0.0100	0.0021	mg/L	0.10000		105	80-120			
Lithium	0.101	0.0500	0.0021	mg/L	0.10000		101	80-120			



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September 07, 2016

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Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6080862 - EPA 3005A											
Matrix Spike (6080862-MS1)			Source: AZH0941-02			Prepared & Analyzed: 09/01/16					
Antimony	0.106	0.0030	0.0008	mg/L	0.10000	0.0008	105	75-125			
Arsenic	0.101	0.0050	0.0016	mg/L	0.10000	ND	101	75-125			
Barium	0.152	0.0100	0.0004	mg/L	0.10000	0.0424	110	75-125			
Beryllium	0.0983	0.0030	0.00008	mg/L	0.10000	ND	98	75-125			
Boron	0.990	0.100	0.0064	mg/L	1.0000	0.0146	98	75-125			
Cadmium	0.0964	0.0010	0.00007	mg/L	0.10000	0.0001	96	75-125			
Calcium	21.5	2.50	0.155	mg/L	1.0000	22.6	NR	75-125			QM-02
Chromium	0.104	0.0100	0.0009	mg/L	0.10000	ND	104	75-125			
Cobalt	0.104	0.0100	0.0005	mg/L	0.10000	0.0079	96	75-125			
Copper	0.0962	0.0050	0.0005	mg/L	0.10000	ND	96	75-125			
Lead	0.0950	0.0050	0.0001	mg/L	0.10000	ND	95	75-125			
Molybdenum	0.0981	0.0100	0.0017	mg/L	0.10000	ND	98	75-125			
Nickel	0.102	0.0050	0.0006	mg/L	0.10000	0.0036	98	75-125			
Selenium	0.101	0.0100	0.0010	mg/L	0.10000	0.0021	99	75-125			
Silver	0.0966	0.0050	0.0005	mg/L	0.10000	ND	97	75-125			
Thallium	0.0958	0.0010	0.0002	mg/L	0.10000	ND	96	75-125			
Vanadium	0.105	0.0100	0.0071	mg/L	0.10000	ND	105	75-125			
Zinc	0.107	0.0100	0.0021	mg/L	0.10000	0.0038	103	75-125			
Lithium	0.109	0.0500	0.0021	mg/L	0.10000	0.0059	103	75-125			
Matrix Spike Dup (6080862-MSD1)			Source: AZH0941-02			Prepared & Analyzed: 09/01/16					
Antimony	0.104	0.0030	0.0008	mg/L	0.10000	0.0008	103	75-125	2	20	
Arsenic	0.105	0.0050	0.0016	mg/L	0.10000	ND	105	75-125	4	20	
Barium	0.150	0.0100	0.0004	mg/L	0.10000	0.0424	107	75-125	2	20	
Beryllium	0.0914	0.0030	0.00008	mg/L	0.10000	ND	91	75-125	7	20	
Boron	0.950	0.100	0.0064	mg/L	1.0000	0.0146	94	75-125	4	20	
Cadmium	0.0978	0.0010	0.00007	mg/L	0.10000	0.0001	98	75-125	1	20	
Calcium	22.5	2.50	0.155	mg/L	1.0000	22.6	NR	75-125	4	20	QM-02
Chromium	0.103	0.0100	0.0009	mg/L	0.10000	ND	103	75-125	2	20	
Cobalt	0.104	0.0100	0.0005	mg/L	0.10000	0.0079	96	75-125	0.5	20	
Copper	0.0970	0.0050	0.0005	mg/L	0.10000	ND	97	75-125	0.9	20	
Lead	0.0967	0.0050	0.0001	mg/L	0.10000	ND	97	75-125	2	20	
Molybdenum	0.0998	0.0100	0.0017	mg/L	0.10000	ND	100	75-125	2	20	
Nickel	0.104	0.0050	0.0006	mg/L	0.10000	0.0036	100	75-125	2	20	
Selenium	0.106	0.0100	0.0010	mg/L	0.10000	0.0021	104	75-125	5	20	
Silver	0.0970	0.0050	0.0005	mg/L	0.10000	ND	97	75-125	0.4	20	
Thallium	0.0975	0.0010	0.0002	mg/L	0.10000	ND	98	75-125	2	20	
Vanadium	0.107	0.0100	0.0071	mg/L	0.10000	ND	107	75-125	1	20	
Zinc	0.107	0.0100	0.0021	mg/L	0.10000	0.0038	103	75-125	0.6	20	
Lithium	0.103	0.0500	0.0021	mg/L	0.10000	0.0059	98	75-125	5	20	



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September 07, 2016

Report No.: AZH0941

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6080862 - EPA 3005A											
Post Spike (6080862-PS1)				Source: AZH0941-02			Prepared & Analyzed: 09/01/16				
Antimony	92.8			ug/L	100.00	0.846	92	80-120			
Arsenic	102			ug/L	100.00	0.707	101	80-120			
Barium	152			ug/L	100.00	42.4	109	80-120			
Beryllium	94.7			ug/L	100.00	0.0612	95	80-120			
Boron	949			ug/L	1000.0	14.6	93	80-120			
Cadmium	98.5			ug/L	100.00	0.0963	98	80-120			
Calcium	23100			ug/L	1000.0	22600	48	80-120			QM-02
Chromium	99.4			ug/L	100.00	0.280	99	80-120			
Cobalt	103			ug/L	100.00	7.87	95	80-120			
Copper	96.1			ug/L	100.00	0.182	96	80-120			
Lead	94.3			ug/L	100.00	0.0288	94	80-120			
Molybdenum	99.1			ug/L	100.00	0.668	98	80-120			
Nickel	103			ug/L	100.00	3.61	99	80-120			
Selenium	101			ug/L	100.00	2.13	99	80-120			
Silver	95.9			ug/L	100.00	0.0094	96	80-120			
Thallium	94.6			ug/L	100.00	0.0403	95	80-120			
Vanadium	103			ug/L	100.00	0.528	103	80-120			
Zinc	102			ug/L	100.00	3.81	98	80-120			
Lithium	103			ug/L	100.00	5.90	97	80-120			

Batch 6080864 - EPA 7470A

Blank (6080864-BLK1)				Prepared & Analyzed: 09/01/16							
Mercury	ND	0.00050	0.000041	mg/L							
LCS (6080864-BS1)				Prepared & Analyzed: 09/01/16							
Mercury	0.00258	0.00050	0.000041	mg/L	2.5000E-3		103	80-120			



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September 07, 2016

Report No.: AZH0941

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6080864 - EPA 7470A											
Matrix Spike (6080864-MS1)			Source: AZH0947-03			Prepared & Analyzed: 09/01/16					
Mercury	0.00252	0.00050	0.000041	mg/L	2.5000E-3	ND	101	75-125			
Matrix Spike Dup (6080864-MSD1)			Source: AZH0947-03			Prepared & Analyzed: 09/01/16					
Mercury	0.00249	0.00050	0.000041	mg/L	2.5000E-3	ND	100	75-125	1	20	
Post Spike (6080864-PS1)			Source: AZH0947-03			Prepared & Analyzed: 09/01/16					
Mercury	1.67			ug/L	1.6667	0.0131	99	80-120			



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Legend

Definition of Laboratory Terms

- ND** - Not Detected at levels equal to or greater than the MDL
- BRL** - Not Detected at levels equal to or greater than the RL
- RL** - Reporting Limit **MDL** - Method Detection Limit
- SOP** - Method run per Pace Standard Operating Procedure
- CFU** - Colony Forming Units
- DF** - Dilution Factor **TIC** - Tentatively Identified Compound

Sample Information

N-Nitrosodiphenylamine breaks down to diphenylamine in the GCMS; both analytes are reported as N-Nitrosodiphenylamine. Pace is not NELAC certified for N-Nitrosodiphenylamine.

Phthalic acid and phthalic anhydride are reported as dimethyl phthalate

Maleic acid and maleic anhydride are reported as dimethyl malate

1,2-Diphenylhydrazine breaks down to azobenzene in the GCMS; both analytes are reported as azobenzene

Definition of Qualifiers

- QM-05** The spike recovery was outside acceptance limits for the MS and/or MSD and/or PDS due to suspected matrix interference. Sample results for the QC batch were accepted based on acceptable LCS recoveries.
- QM-02** The spike recovery is outside acceptance limits due to insignificant spike amount as compared to sample concentration.
- J** Estimated value less than Reporting Limit (RL) but greater than Method Detection Limit(MDL) (CLP J-Flag).
- B-01** Analyte was detected in the associated method blank at an estimated level equal to or greater than the MDL. Sample values reported as greater than the MDL and less than 10x the method blank value are reported as estimated values.

Note: Unless otherwise noted, all results are reported on an as received basis.



CHAIN OF CUSTODY RECORD

Pace Analytical Services, Inc.
110 TECHNOLOGY PARKWAY, PEACHTREE CORNERS, GA 30092
(770) 734-4200 : FAX (770) 734-4201 : www.ash-lab.com

CLIENT NAME: Southern Company Services		ANALYSIS REQUESTED		CONTAINER TYPE		PRESERVATION	
CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER: 241 Ralph McGill Blvd. SE, 810185 Atlanta, GA 30308		P P P 3 7 3		P - PLASTIC A - AMBER GLASS G - CLEAR GLASS V - VOA VIAL S - STERILE O - OTHER		1 - HCl, 56°C 2 - H ₂ SO ₄ , 56°C 3 - HNO ₃ 4 - NaOH, 56°C 5 - NaOH/ZnAc, 56°C 6 - Na ₂ S ₂ O ₃ , 56°C 7 - 56°C not frozen	
REPORT TO: Joju Abraham JABRAHAM@southemco.com		CONTAINERS		MATRIX CODES:		MATRIX CODES:	
REQUESTED COMPLETION DATE: STANDARD		3		DW - DRINKING WATER WW - WASTEWATER GW - GROUNDWATER SW - SURFACE WATER ST - STORM WATER W - WATER		S - SOIL SL - SLUDGE SD - SOLID A - AIR L - LIQUID P - PRODUCT	
PROJECT NAME/STATE: YATES AP CCR GW		PROJECT #: Phase 2 CCR		REMARKS/ADDITIONAL INFORMATION			
Collection DATE	Collection TIME	MATRIX CODE*	GRA B	SAMPLE IDENTIFICATION	L A B		
8/30/16	12:10	GW	X	YGWA-47	1		
8/30/16	-	GW	X	DUP-1	2		
SAMPLED BY AND TITLE:		RELINQUISHED BY:		DATE/TIME:		FOR LAB USE ONLY	
RECEIVED BY:		RELINQUISHED BY:		DATE/TIME:		LAB #: A240941	
RECEIVED BY LAB: J. Abraham		SAMPLE SHIPPED VIA:		DATE/TIME:		Entered into LIMS: Tracking #:	
Temperature: 100 Min 100 Max		USPS FED-EX USPS COURIER OTHER FS		DATE/TIME:		# of Coolers	
Yes No NA		Seal Broken Not Present		DATE/TIME:		Booker ID:	

Pace COC Plant Yates AP CCR GW



CHAIN OF CUSTODY RECORD

Pace Analytical Services, Inc.
 110 TECHNOLOGY PARKWAY, PEACHTREE CORNERS, GA 30092
 (770) 734-4200 : FAX (770) 734-4201 : www.asi-lab.com

CLIENT NAME: Southern Company Services CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER: 241 Ralph McGill Blvd. SE, B10186 Atlanta, GA 30308 REPORT TO: Joji Abraham JABRAHAM@southernco.com REQUESTED COMPLETION DATE: STANDARD PROJECT NAME/STATE: YATES AP CCR GW PROJECT #: Phase 2 CCR		CONTAINER TYPE: P 3 PRESERVATION: 3 7 3 # of CONTAINERS → 3		ANALYSIS REQUESTED Metals App. III & IV EPA 6020/7470 IC (7504) EPA 300.0, TDS SM 2540C Radium 226 & 228 SW-846 9315/9320		CONTAINER TYPE: P - PLASTIC A - AMBER GLASS G - CLEAR GLASS V - VOA VIAL S - STERILE O - OTHER PRESERVATION 1 - HCl, 56°C 2 - H ₂ SO ₄ , 56°C 3 - HNO ₃ 4 - NaOH, 56°C 5 - NaOH/NaAc, 56°C 6 - Na ₂ S ₂ O ₈ , 56°C 7 - 56°C not frozen	
COLLECTION DATE 8-30-16 1329 8-30-16 1450		MATRIX CODE GW W		SAMPLE IDENTIFICATION YGWC-42 FB-1		CONTAINER TYPE: P - PLASTIC A - AMBER GLASS G - CLEAR GLASS V - VOA VIAL S - STERILE O - OTHER PRESERVATION 1 - HCl, 56°C 2 - H ₂ SO ₄ , 56°C 3 - HNO ₃ 4 - NaOH, 56°C 5 - NaOH/NaAc, 56°C 6 - Na ₂ S ₂ O ₈ , 56°C 7 - 56°C not frozen	
DATE/TIME 8/30/16 1329 8/30/16 1450		DATE/TIME 8/30/16 1329 8/30/16 1450		DATE/TIME 8/30/16 1329 8/30/16 1450		DATE/TIME 8/30/16 1329 8/30/16 1450	
SAMPLED BY: [Signature]		RELINQUISHED BY: [Signature]		RELINQUISHED BY: [Signature]		LAB #: A240941 Entered into LIMS: [Signature] Tracking #:	
RECEIVED BY: [Signature]		RECEIVED BY: [Signature]		RECEIVED BY: [Signature]		RECEIVED BY: [Signature]	
TEMPERATURE: 16°C DATE/TIME: 8/30/16 0900		TEMPERATURE: 16°C DATE/TIME: 8/30/16 0900		TEMPERATURE: 16°C DATE/TIME: 8/30/16 0900		TEMPERATURE: 16°C DATE/TIME: 8/30/16 0900	
SHIPMENT: Yes No NA Yes No NA		SHIPMENT: Yes No NA Yes No NA		SHIPMENT: Yes No NA Yes No NA		SHIPMENT: Yes No NA Yes No NA	
SHIPMENT: Yes No NA Yes No NA		SHIPMENT: Yes No NA Yes No NA		SHIPMENT: Yes No NA Yes No NA		SHIPMENT: Yes No NA Yes No NA	

Pace COC Plant Yates AP CCR GW



PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

LOG-IN CHECKLIST

Printed: 9/7/2016 5:11:29PM

Attn: Mr. Joju Abraham

Client: Georgia Power
Project: CCR Event
Date Received: 08/31/16 09:00

Work Order: AZH0941
Logged In By: Mohammad M. Rahman

OBSERVATIONS

#Samples: 4 **#Containers:** 12
Minimum Temp(C): 1.0 **Maximum Temp(C):** 1.0 **Custody Seal(s) Used:** Yes

CHECKLIST ITEMS

COC included with Samples	YES
Sample Container(s) Intact	YES
Chain of Custody Complete	YES
Sample Container(s) Match COC	YES
Custody seal Intact	YES
Temperature in Compliance	YES
Sufficient Sample Volume for Analysis	YES
Zero Headspace Maintained for VOA Analyses	YES
Samples labeled preserved (If Applicable)	YES
Samples received within Allowable Hold Times	YES
Samples Received on Ice	YES
Preservation Confirmed	YES

Comments:



Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

September 30, 2016

Maria Padilla
GA Power
2480 Maner Rd
Atlanta, GA 30339

RE: Project: YATES AP CCR GW
Pace Project No.: 30194841

Dear Maria Padilla:

Enclosed are the analytical results for sample(s) received by the laboratory on September 01, 2016. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Jacquelyn Collins
jacquelyn.collins@pacelabs.com
Project Manager

Enclosures



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: YATES AP CCR GW
Pace Project No.: 30194841

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
L-A-B DOD-ELAP Accreditation #: L2417

Alabama Certification #: 41590

Arizona Certification #: AZ0734

Arkansas Certification

California Certification #: 04222CA

Colorado Certification

Connecticut Certification #: PH-0694

Delaware Certification

Florida/TNI Certification #: E87683

Georgia Certification #: C040

Guam Certification

Hawaii Certification

Idaho Certification

Illinois Certification

Indiana Certification

Iowa Certification #: 391

Kansas/TNI Certification #: E-10358

Kentucky Certification #: 90133

Louisiana DHH/TNI Certification #: LA140008

Louisiana DEQ/TNI Certification #: 4086

Maine Certification #: PA00091

Maryland Certification #: 308

Massachusetts Certification #: M-PA1457

Michigan/PADEP Certification

Missouri Certification #: 235

Montana Certification #: Cert 0082

Nebraska Certification #: NE-05-29-14

Nevada Certification #: PA014572015-1

New Hampshire/TNI Certification #: 2976

New Jersey/TNI Certification #: PA 051

New Mexico Certification #: PA01457

New York/TNI Certification #: 10888

North Carolina Certification #: 42706

North Dakota Certification #: R-190

Oregon/TNI Certification #: PA200002

Pennsylvania/TNI Certification #: 65-00282

Puerto Rico Certification #: PA01457

Rhode Island Certification #: 65-00282

South Dakota Certification

Tennessee Certification #: TN2867

Texas/TNI Certification #: T104704188-14-8

Utah/TNI Certification #: PA014572015-5

USDA Soil Permit #: P330-14-00213

Vermont Dept. of Health: ID# VT-0282

Virgin Island/PADEP Certification

Virginia/VELAP Certification #: 460198

Washington Certification #: C868

West Virginia DEP Certification #: 143

West Virginia DHHR Certification #: 9964C

Wisconsin Certification

Wyoming Certification #: 8TMS-L

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: YATES AP CCR GW
Pace Project No.: 30194841

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30194841001	YGWA-47	Water	08/30/16 12:10	09/01/16 10:00
30194841002	DUP-1	Water	08/30/16 00:01	09/01/16 10:00

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: YATES AP CCR GW
Pace Project No.: 30194841

Lab ID	Sample ID	Method	Analysts	Analytes Reported
30194841001	YGWA-47	EPA 9315	WRR	1
		EPA 9320	JLW	1
		Total Radium Calculation	JAL	1
30194841002	DUP-1	EPA 9315	WRR	1
		EPA 9320	JLW	1
		Total Radium Calculation	JAL	1

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: YATES AP CCR GW
 Pace Project No.: 30194841

Sample: YGWA-47 Lab ID: 30194841001 Collected: 08/30/16 12:10 Received: 09/01/16 10:00 Matrix: Water
 PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.448 ± 0.168 (0.191) C:83% T:NA	pCi/L	09/14/16 08:10	13982-63-3	
Radium-228	EPA 9320	0.646 ± 0.434 (0.814) C:74% T:67%	pCi/L	09/27/16 12:12	15262-20-1	
Total Radium	Total Radium Calculation	1.09 ± 0.602 (1.01)	pCi/L	09/29/16 14:55	7440-14-4	

Sample: DUP-1 Lab ID: 30194841002 Collected: 08/30/16 00:01 Received: 09/01/16 10:00 Matrix: Water
 PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.482 ± 0.172 (0.178) C:81% T:NA	pCi/L	09/14/16 08:10	13982-63-3	
Radium-228	EPA 9320	0.759 ± 0.380 (0.652) C:79% T:75%	pCi/L	09/22/16 02:09	15262-20-1	
Total Radium	Total Radium Calculation	1.24 ± 0.552 (0.830)	pCi/L	09/29/16 14:55	7440-14-4	

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Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL - RADIOCHEMISTRY

Project: YATES AP CCR GW
Pace Project No.: 30194841

QC Batch: 232400 Analysis Method: EPA 9320
QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228
Associated Lab Samples: 30194841001, 30194841002

METHOD BLANK: 1138984 Matrix: Water
Associated Lab Samples: 30194841001, 30194841002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.973 ± 0.471 (0.817) C:83% T:71%	pCi/L	09/27/16 12:10	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: YATES AP CCR GW
Pace Project No.: 30194841

QC Batch: 232404 Analysis Method: EPA 9315
QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium
Associated Lab Samples: 30194841001, 30194841002

METHOD BLANK: 1138989 Matrix: Water
Associated Lab Samples: 30194841001, 30194841002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.00141 ± 0.114 (0.281) C:80% T:NA	pCi/L	09/14/16 08:08	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: YATES AP CCR GW
Pace Project No.: 30194841

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval).

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, Inc.
 110 TECHNOLOGY PARKWAY, PEACHTREE CORNERS, GA 30092
 (770) 734-4200 : FAX (770) 734-4201 : www.asi-lab.com

CHAIN OF CUSTODY RECORD

CLIENT NAME: Southern Company Services			CONTAINER TYPE P	P	P	P	ANALYSIS REQUESTED	CONTAINER TYPE P	PRESERVATION 3	L A B I D N U M B E R ↓	PRESERVATION 1 - HCl, 56°C 2 - H₂SO₄, 56°C 3 - HNO₃ 4 - NaOH, 56°C 5 - NaOH/ZnAc, 56°C 6 - Na₂S₂O₃, 56°C 7 - 56°C not frozen																															
CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER: 241 Ralph McGill Blvd. SE, B10185 Atlanta, GA 30308			CONTAINER TYPE A	7	3			CONTAINER TYPE G				REMARKS/ADDITIONAL INFORMATION																														
REPORT TO: JABRAHAM@southernco.com Joju Abraham CC: MRPADILL@southernco.com CHMCCORK@southernco.com LLMILLET@southernco.com			CONTAINER TYPE V					CONTAINER TYPE S																																		
REQUESTED COMPLETION DATE: STANDARD			CONTAINER TYPE O					CONTAINER TYPE O																																		
PROJECT NAME/STATE: YATES AP CCR GW			<table border="1"> <thead> <tr> <th>Collection DATE</th> <th>Collection TIME</th> <th>MATRIX CODE*</th> <th>C O M P</th> <th>G R A B</th> <th>SAMPLE IDENTIFICATION</th> <th># of CONTAINERS</th> <th>Metals App. III & IV EPA 6020/7470</th> <th>IC (Cl, F, SO₄) EPA 300.0, TDS SM 2540C</th> <th>Radium 226 & 228 SW-846 9315/9320</th> </tr> </thead> <tbody> <tr> <td>8/30/16</td> <td>1210</td> <td>GW</td> <td>X</td> <td></td> <td>YGWA-47</td> <td>3</td> <td>1</td> <td>1</td> <td>1</td> </tr> <tr> <td>8/30/16</td> <td>-</td> <td>GW</td> <td>X</td> <td></td> <td>Dup-1</td> <td>3</td> <td>1</td> <td>1</td> <td>1</td> </tr> </tbody> </table>										Collection DATE	Collection TIME	MATRIX CODE*	C O M P	G R A B	SAMPLE IDENTIFICATION	# of CONTAINERS	Metals App. III & IV EPA 6020/7470	IC (Cl, F, SO ₄) EPA 300.0, TDS SM 2540C	Radium 226 & 228 SW-846 9315/9320	8/30/16	1210	GW	X		YGWA-47	3	1	1	1	8/30/16	-	GW	X		Dup-1	3	1	1	1
Collection DATE	Collection TIME	MATRIX CODE*	C O M P	G R A B	SAMPLE IDENTIFICATION	# of CONTAINERS	Metals App. III & IV EPA 6020/7470	IC (Cl, F, SO ₄) EPA 300.0, TDS SM 2540C	Radium 226 & 228 SW-846 9315/9320																																	
8/30/16	1210	GW	X		YGWA-47	3	1	1	1																																	
8/30/16	-	GW	X		Dup-1	3	1	1	1																																	
PROJECT #: Phase 2 CCR			<div style="text-align: center;"> <p>WO#: 30194841 30194841</p> </div>																																							
SAMPLER BY AND TITLE:			DATE/TIME:	8/31/16	0652		RELINQUISHED BY:	YFAFS	DATE/TIME:	8/21/16		LAB #:																														
RECEIVED BY:			DATE/TIME:	8/31/16	0652		RELINQUISHED BY:		DATE/TIME:			Entered into LIMS:																														
RECEIVED BY LAB:			DATE/TIME:	9-1-16	1000UPS		SAMPLE SHIPPED VIA:	UPS	COURIER	CLIENT	OTHER	Tracking #:																														
pH checked: (Yes) <input type="checkbox"/> No <input checked="" type="checkbox"/> NA			Temperature:	NA	Min:	Max:	Custody Seal:	Intact <input checked="" type="checkbox"/> Broken <input type="checkbox"/>	# of Coolers	Cooler ID:																																

Sample Condition Upon Receipt Pittsburgh

30194841



Client Name: Southern Company Services Project # _____

Courier: Fed Ex UPS USPS Client Commercial Pace Other _____

Tracking #: 68125098 8058

Custody Seal on Cooler/Box Present: yes no Seals intact: yes no

Thermometer Used N/A Type of Ice: Wet Blue None

Cooler Temperature Observed Temp _____ °C Correction Factor: _____ °C Final Temp: _____ °C

Temp should be above freezing to 6°C

Date and Initials of person examining contents: ML 9-1-16

Comments:	Yes	No	N/A	
Chain of Custody Present:		X		1.
Chain of Custody Filled Out:	X			2.
Chain of Custody Relinquished:	X			3.
Sampler Name & Signature on COC:		X		4. <u>No name / only signature</u>
Sample Labels match COC:	X			5.
-Includes date/time/ID/Analysis Matrix: <u>(GLD)</u>				
Samples Arrived within Hold Time:	X			6.
Short Hold Time Analysis (<72hr remaining):		X		7.
Rush Turn Around Time Requested:		X		8.
Sufficient Volume:	X			9.
Correct Containers Used:	X			10.
-Pace Containers Used:		X		
Containers Intact:	X			11.
Filtered volume received for Dissolved tests			X	12.
All containers needing preservation have been checked.	X			13.
All containers needing preservation are found to be in compliance with EPA recommendation.	X			<u>PHLR</u>
exceptions: VOA, coliform, TOC, O&G, Phenolics				Initial when completed <u>ML</u> Date/time of preservation
				Lot # of added preservative
Headspace in VOA Vials (>6mm):			X	14.
Trip Blank Present:		X		15.
Trip Blank Custody Seals Present			X	
Rad Aqueous Samples Screened > 0.5 mrem/hr		X		Initial when completed: <u>ML</u> Date: <u>9-1-16</u>

Client Notification/ Resolution:

Person Contacted: _____ Date/Time: _____ Contacted By: _____

Comments/ Resolution: _____

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)
 *PM review is documented electronically in LIMS. When the Project Manager closes the SRF Review schedule in LIMS. The review is in the Status section of the Workorder Edit Screen.

Quality Control Sample Performance Assessment



Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-226
Analyst: WRR
Date: 9/9/2016
Worklist: 31288
Matrix: DW

Method Blank Assessment	
MB Sample ID	1138989
MB concentration:	0.001
MB Counting Uncertainty:	0.114
MB MDC:	0.281
MB Numerical Performance Indicator:	0.02
MB Status vs. Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment		
LCS#	Y or N?	N
LCS31288		LCS031288
Count Date:	9/21/2016	
Spike I.D.:	16-028	
Spike Concentration (pCi/mL):	44.677	
Volume Used (mL):	0.10	
Aliquot Volume (L, g, F):	0.514	
Target Conc. (pCi/L, g, F):	8.694	
Uncertainty (Calculated):	0.409	
Result (pCi/L, g, F):	8.626	
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.651	
Numerical Performance Indicator:	-0.17	
Percent Recovery:	99.21%	
Status vs. Numerical Indicator:	N/A	
Status vs Recovery:	Pass	

Duplicate Sample Assessment	
Sample I.D.:	30194944003
Duplicate Sample I.D.:	30194944003DUP
Sample Result (pCi/L, g, F):	0.015
Sample Result Counting Uncertainty (pCi/L, g, F):	0.146
Sample Duplicate Result (pCi/L, g, F):	0.213
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.174
Are sample and/or duplicate results below MDC?	See Below #
Duplicate Numerical Performance Indicator:	-1.708
Duplicate RPD:	173.24%
Duplicate Status vs. Numerical Indicator:	N/A
Duplicate Status vs RPD:	Fail**

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

***Batch must be re-prepped due to unacceptable precision.

WRR

Sample Matrix Spike Control Assessment	
Sample Collection Date:	
Sample I.D.:	
Sample MS I.D.:	
Sample MSD I.D.:	
Spike I.D.:	
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	
Spike Volume Used in MS (mL):	
Spike Volume Used in MSD (mL):	
MS Aliquot (L, g, F):	
MS Target Conc. (pCi/L, g, F):	
MSD Aliquot (L, g, F):	
MSD Target Conc. (pCi/L, g, F):	
Spike uncertainty (calculated):	
Sample Result	
Sample Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Sample Matrix Spike Duplicate Counting Uncertainty (pCi/L, g, F):	
MS Numerical Performance Indicator:	
MSD Numerical Performance Indicator:	
MS Percent Recovery:	
MSD Percent Recovery:	
MS Status vs Numerical Indicator:	
MSD Status vs Numerical Indicator:	
MS Status vs Recovery:	
MSD Status vs Recovery:	

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.:	
Sample MS I.D.:	
Sample MSD I.D.:	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Sample Matrix Spike Duplicate Counting Uncertainty (pCi/L, g, F):	
Duplicate Numerical Performance Indicator:	
MS/MSD Duplicate RPD:	
MS/MSD Duplicate Status vs Numerical Indicator:	
MS/MSD Duplicate Status vs RPD:	

Quality Control Sample Performance Assessment



Test: Ra-228
Analyst: JLW
Date: 9/23/2016
Worklist: 31284
Matrix: DW

Method Blank Assessment	
MB Sample ID	1136984
MB Concentration:	0.973
M/B Counting Uncertainty:	0.438
MB MDC:	0.817
MB Numerical Performance Indicator:	4.35
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	See Comment*

Laboratory Control Sample Assessment		LCSD (Y or N)?
Count Date:	9/27/2016	Y
Spike I.D.:	16-025	LCSD31284
Spike Concentration (pCi/mL):	25.565	9/27/2016
Volume Used (mL):	0.20	16-025
Aliquot Volume (L, g, F):	0.814	25.565
Target Conc. (pCi/L, g, F):	6.284	0.20
Uncertainty (Calculated):	0.452	0.808
Result (pCi/L, g, F):	5.336	6.325
LCSD Counting Uncertainty (pCi/L, g, F):	0.693	0.455
Numerical Performance Indicator:	-2.25	6.148
Percent Recovery:	84.92%	0.789
Status vs Numerical Indicator:	N/A	-0.38
Status vs Recovery:	Pass	97.20%

Duplicate Sample Assessment		Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Sample I.D.:	LCSD31284	
Duplicate Sample I.D.:	LCSD31284	
Sample Result Counting Uncertainty (pCi/L, g, F):	5.336	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.693	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	6.148	
Are sample and/or duplicate results below MDC?	NO	
Duplicate Numerical Performance Indicator:	-1.515	
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	13.49%	
Duplicate Status vs Numerical Indicator:	N/A	
Duplicate Status vs RPD:	Pass	

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:
*The method blank result is below the reporting limit for this analysis and is acceptable.

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Sample Matrix Spike Control Assessment	
Sample Collection Date:	
Sample I.D.:	
Sample MS I.D.:	
Sample MSD I.D.:	
Spike I.D.:	
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	
Spike Volume Used in MS (mL):	
Spike Volume Used in MSD (mL):	
MS Aliquot (L, g, F):	
MS Target Conc. (pCi/L, g, F):	
MSD Aliquot (L, g, F):	
MSD Target Conc. (pCi/L, g, F):	
Spike uncertainty (calculated):	
Sample Result:	
Sample Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
MS Numerical Performance Indicator:	
MSD Numerical Performance Indicator:	
MS Percent Recovery:	
MSD Percent Recovery:	
MS Status vs Numerical Indicator:	
MSD Status vs Numerical Indicator:	
MS Status vs Recovery:	
MSD Status vs Recovery:	

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.:	
Sample MS I.D.:	
Sample MSD I.D.:	
Spike I.D.:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
Duplicate Numerical Performance Indicator:	
(Based on the Percent Recoveries) MS/MSD Duplicate RPD:	
MS/MSD Duplicate Status vs Numerical Indicator:	
MS/MSD Duplicate Status vs RPD:	



Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

September 30, 2016

Maria Padilla
GA Power
2480 Maner Rd
Atlanta, GA 30339

RE: Project: YATES AP CCR GW
Pace Project No.: 30194840

Dear Maria Padilla:

Enclosed are the analytical results for sample(s) received by the laboratory on September 01, 2016. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Jacquelyn Collins
jacquelyn.collins@pacelabs.com
Project Manager

Enclosures



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: YATES AP CCR GW
Pace Project No.: 30194840

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
L-A-B DOD-ELAP Accreditation #: L2417

Alabama Certification #: 41590

Arizona Certification #: AZ0734

Arkansas Certification

California Certification #: 04222CA

Colorado Certification

Connecticut Certification #: PH-0694

Delaware Certification

Florida/TNI Certification #: E87683

Georgia Certification #: C040

Guam Certification

Hawaii Certification

Idaho Certification

Illinois Certification

Indiana Certification

Iowa Certification #: 391

Kansas/TNI Certification #: E-10358

Kentucky Certification #: 90133

Louisiana DHH/TNI Certification #: LA140008

Louisiana DEQ/TNI Certification #: 4086

Maine Certification #: PA00091

Maryland Certification #: 308

Massachusetts Certification #: M-PA1457

Michigan/PADEP Certification

Missouri Certification #: 235

Montana Certification #: Cert 0082

Nebraska Certification #: NE-05-29-14

Nevada Certification #: PA014572015-1

New Hampshire/TNI Certification #: 2976

New Jersey/TNI Certification #: PA 051

New Mexico Certification #: PA01457

New York/TNI Certification #: 10888

North Carolina Certification #: 42706

North Dakota Certification #: R-190

Oregon/TNI Certification #: PA200002

Pennsylvania/TNI Certification #: 65-00282

Puerto Rico Certification #: PA01457

Rhode Island Certification #: 65-00282

South Dakota Certification

Tennessee Certification #: TN2867

Texas/TNI Certification #: T104704188-14-8

Utah/TNI Certification #: PA014572015-5

USDA Soil Permit #: P330-14-00213

Vermont Dept. of Health: ID# VT-0282

Virgin Island/PADEP Certification

Virginia/VELAP Certification #: 460198

Washington Certification #: C868

West Virginia DEP Certification #: 143

West Virginia DHHR Certification #: 9964C

Wisconsin Certification

Wyoming Certification #: 8TMS-L

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: YATES AP CCR GW
Pace Project No.: 30194840

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30194840001	YGWC-42	Water	08/30/16 13:29	09/01/16 10:00
30194840002	FB-1	Water	08/30/16 14:50	09/01/16 10:00

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: YATES AP CCR GW
Pace Project No.: 30194840

Lab ID	Sample ID	Method	Analysts	Analytes Reported
30194840001	YGWC-42	EPA 9315	WRR	1
		EPA 9320	JLW	1
		Total Radium Calculation	JAL	1
30194840002	FB-1	EPA 9315	WRR	1
		EPA 9320	JLW	1
		Total Radium Calculation	JAL	1

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: YATES AP CCR GW
 Pace Project No.: 30194840

Sample: YGWC-42		Lab ID: 30194840001	Collected: 08/30/16 13:29	Received: 09/01/16 10:00	Matrix: Water		
PWS:		Site ID:	Sample Type:				
Parameters	Method	Act ± Unc (MDC)	Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	1.66 ± 0.359 (0.185)		pCi/L	09/14/16 08:10	13982-63-3	
		C:87% T:NA					
Radium-228	EPA 9320	1.33 ± 0.493 (0.707)		pCi/L	09/27/16 12:11	15262-20-1	
		C:84% T:70%					
Total Radium	Total Radium Calculation	2.99 ± 0.852 (0.892)		pCi/L	09/29/16 14:55	7440-14-4	

Sample: FB-1		Lab ID: 30194840002	Collected: 08/30/16 14:50	Received: 09/01/16 10:00	Matrix: Water		
PWS:		Site ID:	Sample Type:				
Parameters	Method	Act ± Unc (MDC)	Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.0765 ± 0.115 (0.247)		pCi/L	09/14/16 08:10	13982-63-3	
		C:75% T:NA					
Radium-228	EPA 9320	0.909 ± 0.459 (0.783)		pCi/L	09/27/16 12:12	15262-20-1	
		C:72% T:71%					
Total Radium	Total Radium Calculation	0.986 ± 0.574 (1.03)		pCi/L	09/29/16 14:55	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: YATES AP CCR GW
 Pace Project No.: 30194840

QC Batch: 232400 Analysis Method: EPA 9320
 QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228
 Associated Lab Samples: 30194840001, 30194840002

METHOD BLANK: 1138984 Matrix: Water
 Associated Lab Samples: 30194840001, 30194840002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.973 ± 0.471 (0.817) C:83% T:71%	pCi/L	09/27/16 12:10	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: YATES AP CCR GW
Pace Project No.: 30194840

QC Batch: 232404 Analysis Method: EPA 9315
QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium
Associated Lab Samples: 30194840001, 30194840002

METHOD BLANK: 1138989 Matrix: Water
Associated Lab Samples: 30194840001, 30194840002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.00141 ± 0.114 (0.281) C:80% T:NA	pCi/L	09/14/16 08:08	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: YATES AP CCR GW
Pace Project No.: 30194840

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval).

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

REPORT OF LABORATORY ANALYSIS

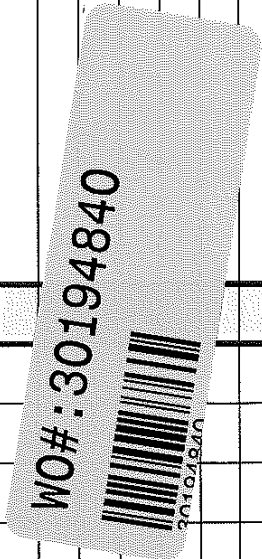
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Pace Analytical Services, Inc.
 110 TECHNOLOGY PARKWAY, PEACHTREE CORNERS, GA 30092
 (770) 734-4200 : FAX (770) 734-4201 : www.asi-lab.com

CHAIN OF CUSTODY RECORD

CLIENT NAME: Southern Company Services		ANALYSIS REQUESTED	
CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER: 241 Ralph McGill Blvd. SE, B10185 Atlanta, GA 30308		CONTAINER TYPE: P 3 P 7 P 3	
REPORT TO: Joju Abraham JABRAHAM@southernmco.com	CC: MRPADILL@southernmco.com CHMcCORK@southernmco.com LLMILLET@southernmco.com	PRESERVATION: 1 - HCl, 56°C 2 - H ₂ SO ₄ , 56°C 3 - HNO ₃ 4 - NaOH, 56°C 5 - NaOH/ZnAc, 56°C 6 - Na ₂ S ₂ O ₃ , 56°C 7 - 56°C not frozen	
REQUESTED COMPLETION DATE: STANDARD	PROJECT NAME/STATE: YATES AP CCR GW	CONTAINER TYPE: P - PLASTIC A - AMBER GLASS G - CLEAR GLASS V - VOA VIAL S - STERILE O - OTHER	
PROJECT #: Phase 2 CCR	PROJECT #:	MATRIX CODES: DW - DRINKING WATER S - SOIL WW - WASTEWATER SL - SLUDGE GW - GROUNDWATER SD - SOLID SW - SURFACE WATER A - AIR ST - STORM WATER L - LIQUID W - WATER P - PRODUCT	
Collection DATE	Collection TIME	MATRIX CODE*	SAMPLE IDENTIFICATION
8-30-16	1329	GW	YGWC-42
8-30-16	1450	W	FB-1
SAMPLED BY: [Signature]		RELINQUISHED BY: [Signature]	DATE/TIME: 8/31/16 @ 0652
RECEIVED BY: [Signature]		RELINQUISHED BY: [Signature]	DATE/TIME: 8/31/16 @ 0652
RECEIVED BY LAB: [Signature]		SAMPLE SHIPPED VIA: UPS Fed-Ex USPS COURIER CLIENT OTHER FS	DATE/TIME: 9-1-16 1000
pH checked: (Yes) No NA	Temperature: N/A Min: Max:	Custody Seal: Intact Broken Not Present	LAB #: [Blank]
Entered into LIMS:		Tracking #:	



Pace COC Plant Yates AP CCR GW

Sample Condition Upon Receipt Pittsburgh



Client Name: Southern Company services Project # 30194840

Courier: Fed Ex UPS USPS Client Commercial Pace Other _____

Tracking #: 68125098 8058

Custody Seal on Cooler/Box Present: yes no Seals intact: yes no

Thermometer Used N/A Type of Ice: Wet Blue None

Cooler Temperature Observed Temp _____ °C Correction Factor: _____ °C Final Temp: _____ °C

Temp should be above freezing to 6°C

Date and Initials of person examining contents: ML 9-1-16

Comments:	Yes	No	N/A	
Chain of Custody Present:		X		1.
Chain of Custody Filled Out:	X			2.
Chain of Custody Relinquished:	X			3.
Sampler Name & Signature on COC:		X		4. <u>No name / only signature</u>
Sample Labels match COC: -Includes date/time/ID/Analysis Matrix: <u>GW</u>	X			5.
Samples Arrived within Hold Time:	X			6.
Short Hold Time Analysis (<72hr remaining):		X		7.
Rush Turn Around Time Requested:		X		8.
Sufficient Volume:	X			9.
Correct Containers Used: -Pace Containers Used:	X			10.
Containers Intact:	X			11.
Filtered volume received for Dissolved tests			X	12.
All containers needing preservation have been checked.	X			13. <u>PhLZ</u>
All containers needing preservation are found to be in compliance with EPA recommendation.	X			
exceptions: VOA, coliform, TOC, O&G, Phenolics				Initial when completed: <u>ML</u> Date/time of preservation: _____
				Lot # of added preservative: _____
Headspace in VOA Vials (>6mm):			X	14.
Trip Blank Present:		X		15.
Trip Blank Custody Seals Present			X	
Rad Aqueous Samples Screened > 0.5 mrem/hr		X		Initial when completed: <u>ML</u> Date: <u>9-1-16</u>

Client Notification/ Resolution:

Person Contacted: _____ Date/Time: _____ Contacted By: _____

Comments/ Resolution: _____

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)
*PM review is documented electronically in LIMS. When the Project Manager closes the SRF Review schedule in LIMS. The review is in the Status section of the Workorder Edit Screen.

Quality Control Sample Performance Assessment

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-226
Analyst: WRR
Date: 9/9/2016
Worklist: 31288
Matrix: DW



Method Blank Assessment

MB Sample ID: 1138989
MB concentration: 0.001
MB Counting Uncertainty: 0.114
MB MDC: 0.281
MB Numerical Performance Indicator: 0.02
MB Status vs. Numerical Indicator: N/A
MB Status vs. MDC: Pass

Laboratory Control Sample Assessment

Count Date: 9/21/2016
Spike I.D.: LCS31288
Spike Concentration (pCi/mL): 18-026
Volume Used (mL): 44.677
Aliquot Volume (L, g, F): 0.10
Target Conc. (pCi/L, g, F): 0.514
Uncertainty (Calculated): 8.694
Result (pCi/L, g, F): 0.409
LCS/LCSD Counting Uncertainty (pCi/L, g, F): 8.626
Numerical Performance Indicator: -0.17
Percent Recovery: 99.21%
Status vs. Numerical Indicator: N/A
Status vs. Recovery: Pass

Duplicate Sample Assessment

Sample I.D.: 30194944003
Duplicate Sample I.D.: 30194944003DUP
Sample Result (pCi/L, g, F): 0.015
Sample Result Counting Uncertainty (pCi/L, g, F): 0.146
Sample Duplicate Result (pCi/L, g, F): 0.213
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F): 0.174
Are sample and/or duplicate results below MDC? See Below #
Duplicate Numerical Performance Indicator: -1.708
Duplicate RPD: 173.24%
Duplicate Status vs. Numerical Indicator: N/A
Duplicate Status vs. RPD: Fail**

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

***Batch must be re-prepped due to unacceptable precision.

WRR

Sample Matrix Spike Control Assessment

Sample Collection Date:
Sample I.D.:
Sample MS I.D.:
Sample MSD I.D.:
Spike I.D.:
MS/MSD Decay Corrected Spike Concentration (pCi/mL):
Spike Volume Used in MS (mL):
MS Aliquot (L, g, F):
MS Target Conc. (pCi/L, g, F):
MSD Aliquot (L, g, F):
MSD Target Conc. (pCi/L, g, F):
Spike uncertainty (calculated):
Sample Result:
Sample Result Counting Uncertainty (pCi/L, g, F):
Sample Matrix Spike Result:
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):
Sample Matrix Spike Duplicate Result:
Sample Matrix Spike Duplicate Counting Uncertainty (pCi/L, g, F):
MS Numerical Performance Indicator:
MSD Numerical Performance Indicator:
MS Percent Recovery:
MSD Percent Recovery:
MS Status vs Numerical Indicator:
MSD Status vs Numerical Indicator:
MS Status vs Recovery:
MSD Status vs Recovery:

Matrix Spike/Matrix Spike Duplicate Sample Assessment

Sample I.D.:
Sample MS I.D.:
Sample MSD I.D.:
Sample Matrix Spike Result:
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):
Sample Matrix Spike Duplicate Result:
Sample Matrix Spike Duplicate Counting Uncertainty (pCi/L, g, F):
Duplicate Numerical Performance Indicator:
MS/MSD Duplicate RPD:
MS/MSD Duplicate Status vs Numerical Indicator:
MS/MSD Duplicate Status vs RPD:

Quality Control Sample Performance Assessment



Test: Ra-228
Analyst: JLW
Date: 9/23/2016
Worklist: 31284
Matrix: DW

Method Blank Assessment	
MB Sample ID	1138984
MB Concentration:	0.973
M/B Counting Uncertainty:	0.438
MB MDC:	0.817
MB Numerical Performance Indicator:	4.35
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	See Comment*

Laboratory Control Sample Assessment		Y
Count Date:	9/27/2016	LCS31284
Spike I.D.:	18-025	16-025
Spike Concentration (pCi/mL):	25.565	25.565
Volume Used (mL):	0.20	0.20
Aliquot Volume (L, g, F):	0.814	0.808
Target Conc. (pCi/L, g, F):	6.284	6.325
Uncertainty (Calculated):	0.452	0.455
Result (pCi/L, g, F):	5.336	5.148
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.693	0.789
Numerical Performance Indicator:	-2.25	-0.39
Percent Recovery:	84.92%	97.20%
Status vs Numerical Indicator:	N/A	N/A
Status vs Recovery:	Pass	Pass

Duplicate Sample Assessment	
Sample I.D.:	LCS31284
Duplicate Sample I.D.:	LCS31284
Sample Result (pCi/L, g, F):	5.336
Sample Duplicate Result (pCi/L, g, F):	6.148
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.789
Are sample and/or duplicate results below MDC?	NO
Duplicate Numerical Performance Indicator:	-1.515
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	13.49%
Duplicate Status vs Numerical Indicator:	N/A
Duplicate Status vs RPD:	Pass

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

*The method blank result is below the reporting limit for this analysis and is acceptable.

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Sample Matrix Spike Control Assessment
Sample Collection Date: Sample I.D. Sample MS I.D. Sample MSD I.D. Spike I.D.:
MS/MSD Decay Corrected Spike Concentration (pCi/mL): Spike Volume Used in MS (mL): Spike Volume Used in MSD (mL): MS Aliquot (L, g, F): MS Target Conc. (pCi/L, g, F): MSD Aliquot (L, g, F): MSD Target Conc. (pCi/L, g, F): Spike uncertainty (calculated):
Sample Result: Sample Result Counting Uncertainty (pCi/L, g, F): Sample Matrix Spike Result: Matrix Spike Result Counting Uncertainty (pCi/L, g, F): Sample Matrix Spike Duplicate Result: Sample Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F): MS Numerical Performance Indicator: MSD Numerical Performance Indicator: MS Percent Recovery: MSD Percent Recovery: MS Status vs Numerical Indicator: MSD Status vs Numerical Indicator: MS Status vs Recovery: MSD Status vs Recovery:

Matrix Spike/Matrix Spike Duplicate Sample Assessment
Sample I.D. Sample MS I.D. Sample MSD I.D. Sample Matrix Spike Result: Matrix Spike Result Counting Uncertainty (pCi/L, g, F): Sample Matrix Spike Duplicate Result: Sample Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F): Duplicate Numerical Performance Indicator: (Based on the Percent Recoveries) MS/MSD Duplicate RPD: MS/MSD Duplicate Status vs Numerical Indicator: MS/MSD Duplicate Status vs RPD:



PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Laboratory Report

Prepared For:

Georgia Power
2480 Maner Road
Atlanta, GA 30339

Attention: Mr. Joju Abraham

Report Number: AZI0018

September 14, 2016

Project: CCR Event

Project #: Plant Yates

We appreciate the opportunity to provide the analytical support for your project. The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Approved:

A handwritten signature in black ink, appearing to read "Maya Farko", written over a horizontal line.

Project Manager

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All test results relate only to the samples analyzed.



PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

September 14, 2016

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
YGWC-44	AZI0018-01	Ground Water	08/31/16 11:40	09/01/16 09:00
YGWC-45	AZI0018-02	Ground Water	08/31/16 14:25	09/01/16 09:00
EQB-1	AZI0018-03	DI Water	08/31/16 15:05	09/01/16 09:00
YGWC-43	AZI0018-04	Ground Water	08/31/16 16:50	09/01/16 09:00



PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
 110 Technology Parkway, Peachtree Corners, GA 30092
 (770) 734-4200 FAX (770) 734-4201

Georgia Power
 2480 Maner Road
 Atlanta GA, 30339

Attention: Mr. Joju Abraham

September 14, 2016

Report No.: AZI0018

Project: CCR Event

Client ID: YGWC-44

Lab Number ID: AZI0018-01

Date/Time Sampled: 8/31/2016 11:40:00AM

Date/Time Received: 9/1/2016 9:00:00AM

Matrix: Ground Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	332	25	10	mg/L	SM 2540 C		1	09/06/16 18:00	09/06/16 18:00	6090101	JPT
Inorganic Anions											
Chloride	13	0.25	0.01	mg/L	EPA 300.0		1	09/02/16 09:30	09/03/16 20:05	6090052	RLC
Fluoride	ND	0.30	0.02	mg/L	EPA 300.0		1	09/02/16 09:30	09/03/16 20:05	6090052	RLC
Sulfate	150	10	0.51	mg/L	EPA 300.0		10	09/02/16 09:30	09/05/16 05:45	6090052	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	09/02/16 12:40	09/03/16 16:54	6090063	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	09/02/16 12:40	09/02/16 22:47	6090063	CSW
Barium	0.126	0.0100	0.0004	mg/L	EPA 6020B		1	09/02/16 12:40	09/02/16 22:47	6090063	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	09/02/16 12:40	09/02/16 22:47	6090063	CSW
Boron	0.541	0.100	0.0064	mg/L	EPA 6020B		1	09/02/16 12:40	09/02/16 22:47	6090063	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	09/02/16 12:40	09/02/16 22:47	6090063	CSW
Calcium	27.3	2.50	0.155	mg/L	EPA 6020B		5	09/02/16 12:40	09/06/16 15:33	6090063	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	09/02/16 12:40	09/02/16 22:47	6090063	CSW
Cobalt	0.0119	0.0100	0.0005	mg/L	EPA 6020B		1	09/02/16 12:40	09/02/16 22:47	6090063	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	09/02/16 12:40	09/02/16 22:47	6090063	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	09/02/16 12:40	09/02/16 22:47	6090063	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	09/02/16 12:40	09/02/16 22:47	6090063	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	09/02/16 12:40	09/02/16 22:47	6090063	CSW
Lithium	0.0115	0.0500	0.0021	mg/L	EPA 6020B	J	1	09/02/16 12:40	09/02/16 22:47	6090063	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	09/02/16 08:45	09/02/16 14:27	6090042	MTC



PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
 110 Technology Parkway, Peachtree Corners, GA 30092
 (770) 734-4200 FAX (770) 734-4201

Georgia Power
 2480 Maner Road
 Atlanta GA, 30339

Attention: Mr. Joju Abraham

September 14, 2016

Report No.: AZI0018

Project: CCR Event

Client ID: YGWC-45

Lab Number ID: AZI0018-02

Date/Time Sampled: 8/31/2016 2:25:00PM

Date/Time Received: 9/1/2016 9:00:00AM

Matrix: Ground Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	402	25	10	mg/L	SM 2540 C		1	09/06/16 18:00	09/06/16 18:00	6090101	JPT
Inorganic Anions											
Chloride	5.8	0.25	0.01	mg/L	EPA 300.0		1	09/02/16 09:30	09/03/16 20:46	6090052	RLC
Fluoride	0.11	0.30	0.02	mg/L	EPA 300.0	J	1	09/02/16 09:30	09/03/16 20:46	6090052	RLC
Sulfate	190	10	0.51	mg/L	EPA 300.0		10	09/02/16 09:30	09/05/16 06:06	6090052	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	09/02/16 12:40	09/03/16 17:00	6090063	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	09/02/16 12:40	09/02/16 22:53	6090063	CSW
Barium	0.0754	0.0100	0.0004	mg/L	EPA 6020B		1	09/02/16 12:40	09/02/16 22:53	6090063	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	09/02/16 12:40	09/02/16 22:53	6090063	CSW
Boron	0.308	0.100	0.0064	mg/L	EPA 6020B		1	09/02/16 12:40	09/02/16 22:53	6090063	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	09/02/16 12:40	09/02/16 22:53	6090063	CSW
Calcium	46.7	2.50	0.155	mg/L	EPA 6020B		5	09/02/16 12:40	09/06/16 15:39	6090063	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	09/02/16 12:40	09/02/16 22:53	6090063	CSW
Cobalt	0.0009	0.0100	0.0005	mg/L	EPA 6020B	J	1	09/02/16 12:40	09/02/16 22:53	6090063	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	09/02/16 12:40	09/02/16 22:53	6090063	CSW
Molybdenum	0.0024	0.0100	0.0017	mg/L	EPA 6020B	J	1	09/02/16 12:40	09/02/16 22:53	6090063	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	09/02/16 12:40	09/02/16 22:53	6090063	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	09/02/16 12:40	09/02/16 22:53	6090063	CSW
Lithium	0.0147	0.0500	0.0021	mg/L	EPA 6020B	J	1	09/02/16 12:40	09/02/16 22:53	6090063	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	09/02/16 08:45	09/02/16 14:29	6090042	MTC



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 Atlanta GA, 30339

Attention: Mr. Joju Abraham

September 14, 2016

Report No.: AZI0018

Project: CCR Event

Client ID: EQB-1

Lab Number ID: AZI0018-03

Date/Time Sampled: 8/31/2016 3:05:00PM

Date/Time Received: 9/1/2016 9:00:00AM

Matrix: DI Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	ND	25	10	mg/L	SM 2540 C		1	09/06/16 18:00	09/06/16 18:00	6090101	JPT
Inorganic Anions											
Chloride	0.09	0.25	0.01	mg/L	EPA 300.0	J	1	09/02/16 09:30	09/03/16 21:07	6090052	RLC
Fluoride	ND	0.30	0.02	mg/L	EPA 300.0		1	09/02/16 09:30	09/03/16 21:07	6090052	RLC
Sulfate	0.07	1.0	0.05	mg/L	EPA 300.0	J	1	09/02/16 09:30	09/03/16 21:07	6090052	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	09/02/16 12:40	09/03/16 17:05	6090063	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	09/02/16 12:40	09/02/16 22:59	6090063	CSW
Barium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	09/02/16 12:40	09/02/16 22:59	6090063	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	09/02/16 12:40	09/02/16 22:59	6090063	CSW
Boron	ND	0.100	0.0064	mg/L	EPA 6020B		1	09/02/16 12:40	09/02/16 22:59	6090063	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	09/02/16 12:40	09/02/16 22:59	6090063	CSW
Calcium	ND	0.500	0.0311	mg/L	EPA 6020B		1	09/02/16 12:40	09/02/16 22:59	6090063	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	09/02/16 12:40	09/02/16 22:59	6090063	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	09/02/16 12:40	09/02/16 22:59	6090063	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	09/02/16 12:40	09/02/16 22:59	6090063	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	09/02/16 12:40	09/02/16 22:59	6090063	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	09/02/16 12:40	09/02/16 22:59	6090063	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	09/02/16 12:40	09/02/16 22:59	6090063	CSW
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	09/02/16 12:40	09/02/16 22:59	6090063	CSW
Mercury	0.00004	0.00050	0.000041	mg/L	EPA 7470A	B-01, J	1	09/02/16 08:45	09/02/16 14:31	6090042	MTC



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 Atlanta GA, 30339

Attention: Mr. Joju Abraham

September 14, 2016

Report No.: AZI0018

Project: CCR Event

Client ID: YGWC-43

Lab Number ID: AZI0018-04

Date/Time Sampled: 8/31/2016 4:50:00PM

Date/Time Received: 9/1/2016 9:00:00AM

Matrix: Ground Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	80	25	10	mg/L	SM 2540 C		1	09/06/16 18:00	09/06/16 18:00	6090101	JPT
Inorganic Anions											
Chloride	1.5	0.25	0.01	mg/L	EPA 300.0		1	09/02/16 09:30	09/03/16 21:28	6090052	RLC
Fluoride	0.12	0.30	0.02	mg/L	EPA 300.0	J	1	09/02/16 09:30	09/03/16 21:28	6090052	RLC
Sulfate	34	1.0	0.05	mg/L	EPA 300.0		1	09/02/16 09:30	09/03/16 21:28	6090052	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	09/02/16 12:40	09/03/16 17:10	6090063	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	09/02/16 12:40	09/02/16 23:04	6090063	CSW
Barium	0.0065	0.0100	0.0004	mg/L	EPA 6020B	J	1	09/02/16 12:40	09/02/16 23:04	6090063	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	09/02/16 12:40	09/02/16 23:04	6090063	CSW
Boron	0.169	0.100	0.0064	mg/L	EPA 6020B		1	09/02/16 12:40	09/02/16 23:04	6090063	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	09/02/16 12:40	09/02/16 23:04	6090063	CSW
Calcium	3.40	0.500	0.0311	mg/L	EPA 6020B		1	09/02/16 12:40	09/02/16 23:04	6090063	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	09/02/16 12:40	09/02/16 23:04	6090063	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	09/02/16 12:40	09/02/16 23:04	6090063	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	09/02/16 12:40	09/02/16 23:04	6090063	CSW
Molybdenum	0.0022	0.0100	0.0017	mg/L	EPA 6020B	J	1	09/02/16 12:40	09/02/16 23:04	6090063	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	09/02/16 12:40	09/02/16 23:04	6090063	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	09/02/16 12:40	09/02/16 23:04	6090063	CSW
Lithium	0.0060	0.0500	0.0021	mg/L	EPA 6020B	J	1	09/02/16 12:40	09/02/16 23:04	6090063	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	09/02/16 08:45	09/02/16 14:34	6090042	MTC



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September 14, 2016

Report No.: AZI0018

General Chemistry - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6090101 - SM 2540 C											
Blank (6090101-BLK1)						Prepared & Analyzed: 09/06/16					
Total Dissolved Solids	ND	25	10	mg/L							
LCS (6090101-BS1)						Prepared & Analyzed: 09/06/16					
Total Dissolved Solids	393	25	10	mg/L	400.00		98	84-108			
Duplicate (6090101-DUP1)						Source: AZI0015-02 Prepared & Analyzed: 09/06/16					
Total Dissolved Solids	3870	25	10	mg/L		3860			0.2	10	
Duplicate (6090101-DUP2)						Source: AZI0018-04 Prepared & Analyzed: 09/06/16					
Total Dissolved Solids	122	25	10	mg/L		80			42	10	QR-03
Batch 6090267 - SM 2540 C											
Blank (6090267-BLK1)						Prepared & Analyzed: 09/12/16					
Total Dissolved Solids	ND	25	10	mg/L							
LCS (6090267-BS1)						Prepared & Analyzed: 09/12/16					
Total Dissolved Solids	370	25	10	mg/L	400.00		92	84-108			
Duplicate (6090267-DUP1)						Source: AZI0018-04RE1 Prepared & Analyzed: 09/12/16					
Total Dissolved Solids	81	25	10	mg/L		79			2	10	



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September 14, 2016

Report No.: AZI0018

Inorganic Anions - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6090052 - EPA 300.0											
Blank (6090052-BLK1)						Prepared: 09/02/16 Analyzed: 09/03/16					
Chloride	ND	0.25	0.01	mg/L							
Fluoride	ND	0.30	0.02	mg/L							
Sulfate	ND	1.0	0.05	mg/L							
LCS (6090052-BS1)						Prepared: 09/02/16 Analyzed: 09/03/16					
Chloride	10.0	0.25	0.01	mg/L	10.010		100	90-110			
Fluoride	10.1	0.30	0.02	mg/L	10.010		101	90-110			
Sulfate	10.2	1.0	0.05	mg/L	10.010		101	90-110			
Matrix Spike (6090052-MS1)						Source: AZI0015-03			Prepared: 09/02/16 Analyzed: 09/03/16		
Chloride	507	0.25	0.01	mg/L	10.010	587	NR	90-110			QM-05
Fluoride	11.2	0.30	0.02	mg/L	10.010	0.93	102	90-110			
Sulfate	315	1.0	0.05	mg/L	10.010	37.1	NR	90-110			QM-05
Matrix Spike (6090052-MS2)						Source: AZI0018-01			Prepared: 09/02/16 Analyzed: 09/03/16		
Chloride	22.8	0.25	0.01	mg/L	10.010	13.0	98	90-110			
Fluoride	11.5	0.30	0.02	mg/L	10.010	ND	114	90-110			QM-05
Sulfate	129	1.0	0.05	mg/L	10.010	133	NR	90-110			QM-05
Matrix Spike Dup (6090052-MSD1)						Source: AZI0015-03			Prepared: 09/02/16 Analyzed: 09/03/16		
Chloride	517	0.25	0.01	mg/L	10.010	587	NR	90-110	2	15	QM-05
Fluoride	11.2	0.30	0.02	mg/L	10.010	0.93	103	90-110	0.3	15	
Sulfate	315	1.0	0.05	mg/L	10.010	37.1	NR	90-110	0.002	15	QM-05



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Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6090042 - EPA 7470A											
Blank (6090042-BLK1) Prepared & Analyzed: 09/02/16											
Mercury	0.00004	0.00050	0.000041	mg/L							J
LCS (6090042-BS1) Prepared & Analyzed: 09/02/16											
Mercury	0.00245	0.00050	0.000041	mg/L	2.5000E-3		98	80-120			
Matrix Spike (6090042-MS1) Source: AZI0015-02 Prepared & Analyzed: 09/02/16											
Mercury	0.00218	0.00050	0.000041	mg/L	2.5000E-3	ND	87	75-125			
Matrix Spike Dup (6090042-MSD1) Source: AZI0015-02 Prepared & Analyzed: 09/02/16											
Mercury	0.00215	0.00050	0.000041	mg/L	2.5000E-3	ND	86	75-125	1	20	
Post Spike (6090042-PS1) Source: AZI0015-02 Prepared & Analyzed: 09/02/16											
Mercury	1.58			ug/L	1.6667	0.0259	93	80-120			
Batch 6090063 - EPA 3005A											
Blank (6090063-BLK1) Prepared: 09/02/16 Analyzed: 09/03/16											
Antimony	ND	0.0030	0.0008	mg/L							
Arsenic	ND	0.0050	0.0016	mg/L							
Barium	ND	0.0100	0.0004	mg/L							
Beryllium	ND	0.0030	0.00008	mg/L							
Boron	ND	0.100	0.0064	mg/L							
Cadmium	ND	0.0010	0.00007	mg/L							
Calcium	ND	0.500	0.0311	mg/L							
Chromium	ND	0.0100	0.0009	mg/L							
Cobalt	ND	0.0100	0.0005	mg/L							
Copper	ND	0.0050	0.0005	mg/L							
Lead	ND	0.0050	0.0001	mg/L							
Molybdenum	ND	0.0100	0.0017	mg/L							
Nickel	ND	0.0050	0.0006	mg/L							
Selenium	ND	0.0100	0.0010	mg/L							
Silver	ND	0.0050	0.0005	mg/L							
Thallium	ND	0.0010	0.0002	mg/L							
Vanadium	ND	0.0100	0.0071	mg/L							
Zinc	ND	0.0100	0.0021	mg/L							
Lithium	ND	0.0500	0.0021	mg/L							



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September 14, 2016

Report No.: AZI0018

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6090063 - EPA 3005A											
LCS (6090063-BS1)						Prepared & Analyzed: 09/02/16					
Antimony	0.106	0.0030	0.0008	mg/L	0.10000		106	80-120			
Arsenic	0.0977	0.0050	0.0016	mg/L	0.10000		98	80-120			
Barium	0.0953	0.0100	0.0004	mg/L	0.10000		95	80-120			
Beryllium	0.0878	0.0030	0.00008	mg/L	0.10000		88	80-120			
Boron	0.901	0.100	0.0064	mg/L	1.0000		90	80-120			
Cadmium	0.0994	0.0010	0.00007	mg/L	0.10000		99	80-120			
Calcium	0.963	0.500	0.0311	mg/L	1.0000		96	80-120			
Chromium	0.0995	0.0100	0.0009	mg/L	0.10000		99	80-120			
Cobalt	0.0958	0.0100	0.0005	mg/L	0.10000		96	80-120			
Copper	0.0944	0.0050	0.0005	mg/L	0.10000		94	80-120			
Lead	0.0976	0.0050	0.0001	mg/L	0.10000		98	80-120			
Molybdenum	0.0993	0.0100	0.0017	mg/L	0.10000		99	80-120			
Nickel	0.0949	0.0050	0.0006	mg/L	0.10000		95	80-120			
Selenium	0.101	0.0100	0.0010	mg/L	0.10000		101	80-120			
Silver	0.100	0.0050	0.0005	mg/L	0.10000		100	80-120			
Thallium	0.0979	0.0010	0.0002	mg/L	0.10000		98	80-120			
Vanadium	0.0982	0.0100	0.0071	mg/L	0.10000		98	80-120			
Zinc	0.0982	0.0100	0.0021	mg/L	0.10000		98	80-120			
Lithium	0.0890	0.0500	0.0021	mg/L	0.10000		89	80-120			
Matrix Spike (6090063-MS1)						Source: AZI0015-03 Prepared & Analyzed: 09/02/16					
Antimony	0.104	0.0030	0.0008	mg/L	0.10000	ND	104	75-125			
Arsenic	0.101	0.0050	0.0016	mg/L	0.10000	ND	101	75-125			
Barium	0.130	0.0100	0.0004	mg/L	0.10000	0.0289	101	75-125			
Beryllium	0.0763	0.0030	0.00008	mg/L	0.10000	ND	76	75-125			
Boron	1.20	0.100	0.0064	mg/L	1.0000	0.560	64	75-125			QM-02
Cadmium	0.0936	0.0010	0.00007	mg/L	0.10000	ND	94	75-125			
Calcium	64.9	5.00	0.311	mg/L	1.0000	65.0	NR	75-125			QM-02
Chromium	0.108	0.0100	0.0009	mg/L	0.10000	0.0013	107	75-125			
Cobalt	0.0979	0.0100	0.0005	mg/L	0.10000	ND	98	75-125			
Copper	0.0877	0.0050	0.0005	mg/L	0.10000	ND	88	75-125			
Lead	0.0905	0.0050	0.0001	mg/L	0.10000	ND	90	75-125			
Molybdenum	0.109	0.0100	0.0017	mg/L	0.10000	ND	109	75-125			
Nickel	0.0920	0.0050	0.0006	mg/L	0.10000	ND	92	75-125			
Selenium	0.0440	0.0100	0.0010	mg/L	0.10000	0.0020	42	75-125			QM-05
Silver	0.0878	0.0050	0.0005	mg/L	0.10000	ND	88	75-125			
Thallium	0.0940	0.0010	0.0002	mg/L	0.10000	ND	94	75-125			
Vanadium	0.122	0.0100	0.0071	mg/L	0.10000	ND	122	75-125			
Zinc	0.0911	0.0100	0.0021	mg/L	0.10000	ND	91	75-125			
Lithium	0.103	0.0500	0.0021	mg/L	0.10000	0.0219	81	75-125			



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Attention: Mr. Joju Abraham

September 14, 2016

Report No.: AZI0018

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6090063 - EPA 3005A											
Matrix Spike Dup (6090063-MSD1)			Source: AZI0015-03			Prepared & Analyzed: 09/02/16					
Antimony	0.102	0.0030	0.0008	mg/L	0.10000	ND	102	75-125	2	20	
Arsenic	0.100	0.0050	0.0016	mg/L	0.10000	ND	100	75-125	0.5	20	
Barium	0.127	0.0100	0.0004	mg/L	0.10000	0.0289	98	75-125	2	20	
Beryllium	0.0745	0.0030	0.00008	mg/L	0.10000	ND	74	75-125	2	20	QM-05
Boron	1.15	0.100	0.0064	mg/L	1.0000	0.560	59	75-125	5	20	QM-02
Cadmium	0.0896	0.0010	0.00007	mg/L	0.10000	ND	90	75-125	4	20	
Calcium	58.7	5.00	0.311	mg/L	1.0000	65.0	NR	75-125	10	20	QM-02
Chromium	0.108	0.0100	0.0009	mg/L	0.10000	0.0013	106	75-125	0.2	20	
Cobalt	0.0961	0.0100	0.0005	mg/L	0.10000	ND	96	75-125	2	20	
Copper	0.0884	0.0050	0.0005	mg/L	0.10000	ND	88	75-125	0.8	20	
Lead	0.0869	0.0050	0.0001	mg/L	0.10000	ND	87	75-125	4	20	
Molybdenum	0.104	0.0100	0.0017	mg/L	0.10000	ND	104	75-125	4	20	
Nickel	0.0900	0.0050	0.0006	mg/L	0.10000	ND	90	75-125	2	20	
Selenium	0.0527	0.0100	0.0010	mg/L	0.10000	0.0020	51	75-125	18	20	QM-05
Silver	0.0855	0.0050	0.0005	mg/L	0.10000	ND	85	75-125	3	20	
Thallium	0.0894	0.0010	0.0002	mg/L	0.10000	ND	89	75-125	5	20	
Vanadium	0.118	0.0100	0.0071	mg/L	0.10000	ND	118	75-125	3	20	
Zinc	0.0920	0.0100	0.0021	mg/L	0.10000	ND	92	75-125	1	20	
Lithium	0.0984	0.0500	0.0021	mg/L	0.10000	0.0219	77	75-125	4	20	
Post Spike (6090063-PS1)			Source: AZI0015-03			Prepared & Analyzed: 09/02/16					
Antimony	98.9			ug/L	100.00	0.0800	99	80-120			
Arsenic	101			ug/L	100.00	1.53	99	80-120			
Barium	127			ug/L	100.00	28.9	98	80-120			
Beryllium	74.5			ug/L	100.00	0.0207	74	80-120			QM-05
Boron	1160			ug/L	1000.0	560	60	80-120			QM-02
Cadmium	92.6			ug/L	100.00	0.0183	93	80-120			
Calcium	61300			ug/L	1000.0	65000	NR	80-120			QM-02
Chromium	104			ug/L	100.00	1.25	102	80-120			
Cobalt	95.2			ug/L	100.00	0.401	95	80-120			
Copper	85.0			ug/L	100.00	0.195	85	80-120			
Lead	87.6			ug/L	100.00	0.0431	88	80-120			
Molybdenum	108			ug/L	100.00	0.480	108	80-120			
Nickel	92.6			ug/L	100.00	0.329	92	80-120			
Selenium	99.2			ug/L	100.00	2.03	97	80-120			
Silver	87.8			ug/L	100.00	0.0021	88	80-120			
Thallium	91.5			ug/L	100.00	0.0702	91	80-120			
Vanadium	115			ug/L	100.00	6.20	109	80-120			
Zinc	91.9			ug/L	100.00	1.01	91	80-120			
Lithium	102			ug/L	100.00	21.9	80	80-120			



PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

September 14, 2016

Legend

Definition of Laboratory Terms

- ND** - Not Detected at levels equal to or greater than the MDL
BRL - Not Detected at levels equal to or greater than the RL
RL - Reporting Limit **MDL** - Method Detection Limit
SOP - Method run per Pace Standard Operating Procedure
CFU - Colony Forming Units
DF - Dilution Factor **TIC** - Tentatively Identified Compound

Sample Information

N-Nitrosodiphenylamine breaks down to diphenylamine in the GCMS; both analytes are reported as N-Nitrosodiphenylamine. Pace is not NELAC certified for N-Nitrosodiphenylamine.

Phthalic acid and phthalic anhydride are reported as dimethyl phthalate

Maleic acid and maleic anhydride are reported as dimethyl malate

1,2-Diphenylhydrazine breaks down to azobenzene in the GCMS; both analytes are reported as azobenzene

Definition of Qualifiers

- QR-03** The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to suspected matrix interference and/or non-homogeneous sample matrix.
- QM-05** The spike recovery was outside acceptance limits for the MS and/or MSD and/or PDS due to suspected matrix interference. Sample results for the QC batch were accepted based on acceptable LCS recoveries.
- QM-02** The spike recovery is outside acceptance limits due to insignificant spike amount as compared to sample concentration.
- J** Estimated value less than Reporting Limit (RL) but greater than Method Detection Limit(MDL) (CLP J-Flag).
- B-01** Analyte was detected in the associated method blank at an estimated level equal to or greater than the MDL. Sample values reported as greater than the MDL and less than 10x the method blank value are reported as estimated values.

Note: Unless otherwise noted, all results are reported on an as received basis.

Pace Analytical Services, Inc.
 110 TECHNOLOGY PARKWAY, PEACHTREE CORNERS, GA 30092
 (770) 734-4200 : FAX (770) 734-4201 : www.asi-lab.com



CHAIN OF CUSTODY RECORD

CLIENT NAME: Southern Company Services

CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER:
 241 Ralph McGill Blvd, SE, B10185
 Atlanta, GA 30308

REPORT TO: Joju Abraham
 JABRAHAM@southernco.com

OC: MRPADILL@southernco.com
 CHMCCORK@southernco.com
 ILMILLET@southernco.com

PO #:

REQUESTED COMPLETION DATE:
 STANDARD

PROJECT NAME/STATE:
YATES AP CCR GW

PROJECT #:

CONTAINER TYPE	ANALYSIS REQUESTED				CONTAINER PRESERVATION	CONTAINER TYPE	PRESERVATION
	P	P	P	P			
3	3	7	3				
3	7	3					
	IC (Cl, F, SO ₄)	EPA 300.0, TDS SM 2540C	Radionuclides 226 & 228 SW-846 9315/9320				
	EPA 6020/7470 Metals App. III & IV						
CONTAINERS	CONTAINERS				CONTAINER PRESERVATION	CONTAINER TYPE	PRESERVATION
	C	G	A	B			
	Phase 2 CCR						
8/31/16	GW	X			3	P-PLASTIC	1 - HCl, ≤6°C
8/31/16	GW	X			3	A-AMBER GLASS	2 - H ₂ SO ₄ , ≤6°C
8/31/16	W	X			3	G-CLEAR GLASS	3 - HNO ₃
8/31/16	GW	X			3	V-VOA VIAL	4 - NaOH, ≤6°C
						S-STERILE	5 - NaOH/ZnAc, ≤6°C
						O-OTHER	6 - Na ₂ O ₂ , ≤6°C
							7 - ≤6°C not frozen
REMARKS/ADDITIONAL INFORMATION							
MATRIX CODES: DW - DRINKING WATER S - SOIL WW - WASTEWATER SL - SLUDGE GW - GROUNDWATER SD - SOLID SW - SURFACE WATER A - AIR ST - STORM WATER L - LIQUID W - WATER P - PRODUCT							

SAMPLED BY AND TITLE: *Michael...* DATE/TIME: 8/31/16 0703

RECEIVED BY: *John...* DATE/TIME: 11/11/16 0703

REVIEWED BY: *John...* DATE/TIME: 11/11/16 0900

Temperature: 3°C

Relinquished By: *M. Padilla* DATE/TIME: 8/31/16 0703

Relinquished By: *John...* DATE/TIME: 11/11/16 0900

Sample Shipped Via: USPS COURIER # of Coolers: 0 OTHER: FS

Chakody Seal: Intact Broken: No Not Present: No

Lab #: *A27-0018*

Entered into LIMS: *John...*

Tracking #:



PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

LOG-IN CHECKLIST

Printed: 9/14/2016 6:39:54PM

Attn: Mr. Joju Abraham

Client: Georgia Power

Project: CCR Event

Date Received: 09/01/16 09:00

Work Order: AZI0018

Logged In By: Charles Hawks

OBSERVATIONS

#Samples: 4

#Containers: 12

Minimum Temp(C): 3.0

Maximum Temp(C): 3.0

Custody Seal(s) Used: Yes

CHECKLIST ITEMS

COC included with Samples	YES
Sample Container(s) Intact	YES
Chain of Custody Complete	YES
Sample Container(s) Match COC	YES
Custody seal Intact	YES
Temperature in Compliance	YES
Sufficient Sample Volume for Analysis	YES
Zero Headspace Maintained for VOA Analyses	YES
Samples labeled preserved (If Applicable)	YES
Samples received within Allowable Hold Times	YES
Samples Received on Ice	YES
Preservation Confirmed	YES

Comments:



Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

September 30, 2016

Maria Padilla
GA Power
2480 Maner Rd
Atlanta, GA 30339

RE: Project: YATES AP CCR GW
Pace Project No.: 30194994

Dear Maria Padilla:

Enclosed are the analytical results for sample(s) received by the laboratory on September 02, 2016. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Jacquelyn Collins
jacquelyn.collins@pacelabs.com
Project Manager

Enclosures



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: YATES AP CCR GW

Pace Project No.: 30194994

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601

L-A-B DOD-ELAP Accreditation #: L2417

Alabama Certification #: 41590

Arizona Certification #: AZ0734

Arkansas Certification

California Certification #: 04222CA

Colorado Certification

Connecticut Certification #: PH-0694

Delaware Certification

Florida/TNI Certification #: E87683

Georgia Certification #: C040

Guam Certification

Hawaii Certification

Idaho Certification

Illinois Certification

Indiana Certification

Iowa Certification #: 391

Kansas/TNI Certification #: E-10358

Kentucky Certification #: 90133

Louisiana DHH/TNI Certification #: LA140008

Louisiana DEQ/TNI Certification #: 4086

Maine Certification #: PA00091

Maryland Certification #: 308

Massachusetts Certification #: M-PA1457

Michigan/PADEP Certification

Missouri Certification #: 235

Montana Certification #: Cert 0082

Nebraska Certification #: NE-05-29-14

Nevada Certification #: PA014572015-1

New Hampshire/TNI Certification #: 2976

New Jersey/TNI Certification #: PA 051

New Mexico Certification #: PA01457

New York/TNI Certification #: 10888

North Carolina Certification #: 42706

North Dakota Certification #: R-190

Oregon/TNI Certification #: PA200002

Pennsylvania/TNI Certification #: 65-00282

Puerto Rico Certification #: PA01457

Rhode Island Certification #: 65-00282

South Dakota Certification

Tennessee Certification #: TN2867

Texas/TNI Certification #: T104704188-14-8

Utah/TNI Certification #: PA014572015-5

USDA Soil Permit #: P330-14-00213

Vermont Dept. of Health: ID# VT-0282

Virgin Island/PADEP Certification

Virginia/VELAP Certification #: 460198

Washington Certification #: C868

West Virginia DEP Certification #: 143

West Virginia DHHR Certification #: 9964C

Wisconsin Certification

Wyoming Certification #: 8TMS-L

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: YATES AP CCR GW
Pace Project No.: 30194994

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30194994001	YGWC-44	Water	08/31/16 11:40	09/02/16 10:20
30194994002	YGWC-45	Water	08/31/16 14:25	09/02/16 10:20
30194994003	EQB-1	Water	08/31/16 15:05	09/02/16 10:20
30194994004	YGWC-43	Water	08/31/16 16:50	09/02/16 10:20

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: YATES AP CCR GW
 Pace Project No.: 30194994

Lab ID	Sample ID	Method	Analysts	Analytes Reported
30194994001	YGWC-44	EPA 9315	WRR	1
		EPA 9320	JLW	1
		Total Radium Calculation	JAL	1
30194994002	YGWC-45	EPA 9315	WRR	1
		EPA 9320	JLW	1
		Total Radium Calculation	JAL	1
30194994003	EQB-1	EPA 9315	WRR	1
		EPA 9320	JLW	1
		Total Radium Calculation	JAL	1
30194994004	YGWC-43	EPA 9315	WRR	1
		EPA 9320	JLW	1
		Total Radium Calculation	JAL	1

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: YATES AP CCR GW
 Pace Project No.: 30194994

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Sample: YGWC-44 Lab ID: 30194994001 Collected: 08/31/16 11:40 Received: 09/02/16 10:20 Matrix: Water						
PWS: Site ID: Sample Type:						
Radium-226	EPA 9315	0.334 ± 0.160 (0.214) C:69% T:NA	pCi/L	09/14/16 09:38	13982-63-3	
Radium-228	EPA 9320	1.82 ± 0.607 (0.838) C:79% T:78%	pCi/L	09/22/16 21:44	15262-20-1	
Total Radium	Total Radium Calculation	2.15 ± 0.767 (1.05)	pCi/L	09/26/16 14:07	7440-14-4	

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Sample: YGWC-45 Lab ID: 30194994002 Collected: 08/31/16 14:25 Received: 09/02/16 10:20 Matrix: Water						
PWS: Site ID: Sample Type:						
Radium-226	EPA 9315	0.550 ± 0.181 (0.167) C:87% T:NA	pCi/L	09/14/16 09:38	13982-63-3	
Radium-228	EPA 9320	1.10 ± 0.545 (0.935) C:72% T:66%	pCi/L	09/28/16 13:07	15262-20-1	
Total Radium	Total Radium Calculation	1.65 ± 0.726 (1.10)	pCi/L	09/29/16 12:27	7440-14-4	

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Sample: EQB-1 Lab ID: 30194994003 Collected: 08/31/16 15:05 Received: 09/02/16 10:20 Matrix: Water						
PWS: Site ID: Sample Type:						
Radium-226	EPA 9315	-0.0597 ± 0.0535 (0.200) C:74% T:NA	pCi/L	09/14/16 09:38	13982-63-3	
Radium-228	EPA 9320	0.783 ± 0.454 (0.832) C:71% T:85%	pCi/L	09/22/16 22:11	15262-20-1	
Total Radium	Total Radium Calculation	0.783 ± 0.508 (1.03)	pCi/L	09/26/16 14:07	7440-14-4	

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Sample: YGWC-43 Lab ID: 30194994004 Collected: 08/31/16 16:50 Received: 09/02/16 10:20 Matrix: Water						
PWS: Site ID: Sample Type:						
Radium-226	EPA 9315	0.282 ± 0.187 (0.343) C:72% T:NA	pCi/L	09/14/16 11:35	13982-63-3	
Radium-228	EPA 9320	0.644 ± 0.464 (0.888) C:73% T:69%	pCi/L	09/28/16 13:07	15262-20-1	
Total Radium	Total Radium Calculation	0.926 ± 0.651 (1.23)	pCi/L	09/29/16 12:27	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: YATES AP CCR GW
 Pace Project No.: 30194994

QC Batch: 232405 Analysis Method: EPA 9315
 QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium
 Associated Lab Samples: 30194994001, 30194994002, 30194994003, 30194994004

METHOD BLANK: 1138990 Matrix: Water
 Associated Lab Samples: 30194994001, 30194994002, 30194994003, 30194994004

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0580 ± 0.0928 (0.200) C:77% T:NA	pCi/L	09/14/16 09:38	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: YATES AP CCR GW
 Pace Project No.: 30194994

QC Batch: 232402 Analysis Method: EPA 9320
 QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228
 Associated Lab Samples: 30194994001, 30194994002, 30194994003, 30194994004

METHOD BLANK: 1138986 Matrix: Water
 Associated Lab Samples: 30194994001, 30194994002, 30194994003, 30194994004

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.673 ± 0.390 (0.724) C:85% T:84%	pCi/L	09/22/16 21:43	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: YATES AP CCR GW
Pace Project No.: 30194994

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval).

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

REPORT OF LABORATORY ANALYSIS

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WO#: 30194994



Pace Analytical Services, Inc.
 110 TECHNOLOGY PARKWAY, PEACHTREE CORNERS, G
 (770) 734-4200 : FAX (770) 734-4201 : www.asi-lab.com



CHAIN OF CUSTODY RECORD

CLIENT NAME: Southern Company Services

CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER:
 241 Ralph McGill Blvd. SE, B10185
 Atlanta, GA 30308

REPORT TO: Joju Abraham
 JABRAHAM@southernco.com

CC: MRPADILL@southernco.com
 CHMCCORK@southernco.com
 LLMILLET@southernco.com

REQUESTED COMPLETION DATE: PO #:

PROJECT NAME/STATE: YATES AP CCR GW

PROJECT #: Phase 2 CCR

Collection DATE	Collection TIME	MATRIX CODE*	SAMPLE IDENTIFICATION	CONTAINER TYPE			
				C	G	R	A
8/31/16	1140	GW	YGWC-4H	X			
8/31/16	1425	GW	YGWC-4S	X			
8/31/16	1505	W	EQ3-1	X			
8/31/16	1650	GW	YGWC-43	X			

SAMPLED BY AND TITLE: DATE/TIME: 8/31/16 0703

RECEIVED BY: [Signature] DATE/TIME: 9/1/16 0703

RECEIVED BY JAB: [Signature] DATE/TIME: 9/1/16 0900

Temperature: Min: 3°C Max: 3°C

Shipping: Yes No NA

Seal: Yes No NA

Signature: [Signature]

CONTAINER TYPE	PRESERVATION	ANALYSIS REQUESTED	CONTAINER TYPE	PRESERVATION	L	A	B	I	D	N	U	M	B	E	R	CONTAINER TYPE	PRESERVATION
		Metals App. III & IV EPA 6020/7470															
		IC (Cl, F, SO4) EPA 300.0, TDS SM 2540C															
		Radium 226 & 228 SW-846 9315/9320															

RELINQUISHED BY: [Signature] DATE/TIME: 8/31/16 0703

RELINQUISHED BY: [Signature] DATE/TIME: 9/1/16 0903

SAMPLE SHIPPED VIA: UPS FED-EX USPS COURIER OTHER FS

Custody Seal: Broken Not Present

of Coolers

Tracking #: Entered into LIMS:

FOR LAB USE ONLY

Pace COC Plant Yates AP CCR GW
 [Signature] 9-2-16 1620

Sample Condition Upon Receipt Pittsburgh

30194994



Client Name: Georgia Power Project # _____

Courier: Fed Ex UPS USPS Client Commercial Pace Other _____

Tracking #: 6812 5098 8161

Custody Seal on Cooler/Box Present: yes no Seals intact: yes no

Thermometer Used N/A Type of Ice: Wet Blue None
 Cooler Temperature Observed Temp _____ °C Correction Factor: _____ °C Final Temp: _____ °C

Temp should be above freezing to 6°C

Date and Initials of person examining contents: ML 9-2-16

Comments:	Yes	No	N/A	
Chain of Custody Present:	/			1.
Chain of Custody Filled Out:	/			2.
Chain of Custody Relinquished:	/			3.
Sampler Name & Signature on COC:	/			4. <u>no signature</u>
Sample Labels match COC: -Includes date/time/ID/Analysis Matrix: <u>GW, W, WT</u>	/			5.
Samples Arrived within Hold Time:	/			6.
Short Hold Time Analysis (<72hr remaining):	/			7.
Rush Turn Around Time Requested:	/			8.
Sufficient Volume:	/			9.
Correct Containers Used: -Pace Containers Used:	/			10.
Containers Intact:	/			11.
Filtered volume received for Dissolved tests	/			12.
All containers needing preservation have been checked.	/			13. <u>all below 2 PH</u>
All containers needing preservation are found to be in compliance with EPA recommendation.	/			
exceptions: VOA, coliform, TOC, O&G, Phenolics				Initial when completed <u>ML</u> Date/time of preservation _____
				Lot # of added preservative _____
Headspace in VOA Vials (>6mm):			/	14.
Trip Blank Present:			/	15.
Trip Blank Custody Seals Present			/	
Rad Aqueous Samples Screened > 0.5 mrem/hr			/	Initial when completed: <u>ML</u> Date: <u>9-2-16</u>

Client Notification/ Resolution:
 Person Contacted: _____ Date/Time: _____ Contacted By: _____
 Comments/ Resolution: _____

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)
 *PM review is documented electronically in LIMS. When the Project Manager closes the SRF Review schedule in LIMS. The review is in the Status section of the Workorder Edit Screen.

Quality Control Sample Performance Assessment



Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-226
 Analyst: WRR
 Date: 9/9/2016
 Worklist: 31289
 Matrix: DW

Method Blank Assessment	
MB Sample ID	1138990
MB concentration:	0.058
MB Counting Uncertainty:	0.092
MB MDC:	0.200
MB Numerical Performance Indicator:	1.23
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	
Count Date:	9/14/2016
Spike I.D.:	16-026
Spike Concentration (pCi/L):	44.678
Volume Used (mL):	0.10
Aliquot Volume (L, g, F):	0.503
Target Conc. (pCi/L, g, F):	8.882
Uncertainty (Calculated):	0.418
Result (pCi/L, g, F):	7.333
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.556
Numerical Performance Indicator:	-4.37
Percent Recovery:	82.56%
Status vs Numerical Indicator:	N/A
Status vs Recovery:	Pass

Duplicate Sample Assessment	
Sample I.D.:	30195003003
Duplicate Sample I.D.:	30195003003DUP
Sample Result Counting Uncertainty (pCi/L, g, F):	0.079
Sample Duplicate Result (pCi/L, g, F):	0.107
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.174
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.171
Are sample and/or duplicate results below MDC?	See Below ##
Duplicate Numerical Performance Indicator:	-0.916
Duplicate RPD:	74.55%
Duplicate Status vs Numerical Indicator:	N/A
Duplicate Status vs RPD:	Fail***

Evaluation of duplicate precision is not applicable if either the sample or duplicate result are below the MDC.

Comments:

***Batch must be re-prepped due to unacceptable precision.

Sample Matrix Spike Control Assessment	
Sample Collection Date:	
Sample I.D.:	
Sample MS I.D.:	
Sample MSD I.D.:	
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	
Spike Volume Used in MS (mL):	
Spike Volume Used in MSD (mL):	
MS Aliquot (L, g, F):	
MS Target Conc.(pCi/L, g, F):	
MSD Aliquot (L, g, F):	
MSD Target Conc. (pCi/L, g, F):	
Spike uncertainty (calculated):	
Sample Result:	
Sample Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Result:	
Sample Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	
MS Numerical Performance Indicator:	
MS Percent Recovery:	
MSD Percent Recovery:	
MS Status vs Numerical Indicator:	
MSD Status vs Numerical Indicator:	
MS Status vs Recovery:	
MSD Status vs Recovery:	

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.:	
Sample MS I.D.:	
Sample MSD I.D.:	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	
Duplicate Numerical Performance Indicator:	
MS/MSD Duplicate RPD:	
MS/MSD Duplicate Status vs Numerical Indicator:	
MS/MSD Duplicate Status vs RPD:	

Quality Control Sample Performance Assessment



Analyst **Must Manually Enter All Fields Highlighted in Yellow.**

Test: Ra-228
Analyst: J.L.W.
Date: 9/12/2016
Worklist: 31286
Matrix: DW

Method Blank Assessment

MB Sample ID: 1138986
MB Concentration: 0.673
M/B Counting Uncertainty: 0.371
MB MDC: 0.724
MB Numerical Performance Indicator: 3.55
MB Status vs Numerical Indicator: N/A
MB Status vs. MDC: Pass

Laboratory Control Sample Assessment

LCS (Y or N)? N
LCSID: LCS31286

Count Date: 9/22/2016
Spike I.D.: 16-025
Spike Concentration (pCi/mL): 25.604
Volume Used (mL): 0.20
Aliquot Volume (L, g, F): 0.801
Target Conc. (pCi/L, g, F): 6.383
Result (Calculated) (pCi/L, g, F): 8.562
Uncertainty (pCi/L, g, F): 0.460
LCS/LCSD Counting Uncertainty (pCi/L, g, F): 0.792
Numerical Performance Indicator: 4.94
Percent Recovery: 133.93%
Status vs Numerical Indicator: N/A
Status vs Recovery: Pass

Duplicate Sample Assessment

Sample I.D.: 30194986003
Duplicate Sample I.D.: 30194986003DUP

Sample Result (pCi/L, g, F): 1.218
Sample Result Counting Uncertainty (pCi/L, g, F): 0.440
Sample Duplicate Result (pCi/L, g, F): 2.067
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F): 0.494
Are sample and/or duplicate results below MDC? See Below ##
Duplicate Numerical Performance Indicator: -2.517
Duplicate RPD: 51.73%
Duplicate Status vs Numerical Indicator: N/A
Duplicate Status vs RPD: Fail***

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

***Batch must be re-prepped due to unacceptable precision.

Sample Matrix Spike Control Assessment

Sample Collection Date:
Sample I.D.:
Sample MS I.D.:
Sample MSD I.D.:
Spike I.D.:
MS/MSD Decay Corrected Spike Concentration (pCi/mL):
Spike Volume Used in MS (mL):
Spike Volume Used in MSD (mL):
MS Aliquot (L, g, F):
MS Target Conc. (pCi/L, g, F):
MSD Aliquot (L, g, F):
MSD Target Conc. (pCi/L, g, F):
Spike uncertainty (calculated):
Sample Result:
Sample Result Counting Uncertainty (pCi/L, g, F):
Sample Matrix Spike Result:
Sample Matrix Spike Counting Uncertainty (pCi/L, g, F):
Sample Matrix Spike Duplicate Result:
Sample Matrix Spike Duplicate Counting Uncertainty (pCi/L, g, F):
MS Numerical Performance Indicator:
MSD Numerical Performance Indicator:
MS Percent Recovery:
MSD Percent Recovery:
MS Status vs Numerical Indicator:
MSD Status vs Numerical Indicator:
MS Status vs Recovery:
MSD Status vs Recovery:

Matrix Spike/Matrix Spike Duplicate Sample Assessment

Sample I.D.:
Sample MS I.D.:
Sample MSD I.D.:
Sample Matrix Spike Result:
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):
Sample Matrix Spike Duplicate Result:
Sample Matrix Spike Duplicate Counting Uncertainty (pCi/L, g, F):
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):
Duplicate Numerical Performance Indicator:
(Based on the Percent Recoveries) MS/MSD Duplicate RPD:
MS/MSD Duplicate Status vs Numerical Indicator:
MS/MSD Duplicate Status vs RPD:

Handwritten signature: J.L.W.

Product Name: Low-Flow System

Date: 2016-11-16 13:03:05

Project Information:

Operator Name Chris Parker
Company Name Atlantic Coast Consulting
Project Name Plant Yates Phase 2 CCR
Site Name Plant Yates
Latitude 33° 27' 46.14"
Longitude -84° 53' -52.68"
Sonde SN 466086
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type peri Pump
Tubing Type poly
Tubing Diameter .17 in
Tubing Length 65 ft

Pump placement from TOC 54 ft

Well Information:

Well ID YGWC-42
Well diameter 2 in
Well Total Depth 59.94 ft
Screen Length 10 ft
Depth to Water 29.05 ft

Pumping Information:

Final Pumping Rate 120 mL/min
Total System Volume 0.3801225 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 12 in
Total Volume Pumped 4.8 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	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	12:39:16	3599.97	19.68	6.35	1628.82	4.98	31.10	0.32	-39.02
Last 5	12:44:17	3900.97	19.86	6.31	1644.70	4.87	31.10	0.32	-31.89
Last 5	12:49:17	4200.97	20.75	6.27	1642.18	4.65	31.10	0.33	-25.54
Last 5	12:54:17	4500.96	20.70	6.24	1656.04	--	--	0.31	-19.56
Last 5	12:59:17	4800.96	20.76	6.21	1673.60	--	--	0.33	-13.80
Variance 0			0.89	-0.03	-2.52			0.01	6.35
Variance 1			-0.04	-0.03	13.86			-0.01	5.98
Variance 2			0.05	-0.03	17.56			0.01	5.76

Notes

Collected at 13:05. Sunny 60

Grab Samples

Product Name: Low-Flow System

Date: 2016-11-16 15:05:37

Project Information:

Operator Name Chris Parker
Company Name Atlantic Coast Consulting
Project Name Plant Yates Phase 2 CCR
Site Name Plant Yates
Latitude 33° 27' 46.14"
Longitude -84° 53' -52.68"
Sonde SN 466086
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type peri Pump
Tubing Type poly
Tubing Diameter .17 in
Tubing Length 85 ft

Pump placement from TOC 74 ft

Well Information:

Well ID YGWC-43
Well diameter 2 in
Well Total Depth 79.93 ft
Screen Length 10 ft
Depth to Water 15.35 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.469391 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 3 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	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	14:42:36	600.02	19.45	6.78	270.57	5.46	15.60	0.19	-74.13
Last 5	14:47:36	900.02	19.59	6.78	269.53	5.09	15.60	0.16	-78.24
Last 5	14:52:36	1200.02	19.72	6.78	270.13	4.04	15.60	0.14	-76.82
Last 5	14:57:36	1500.02	19.68	6.78	270.59	3.12	15.60	0.13	-76.54
Last 5	15:02:36	1800.02	19.46	6.79	270.18	2.79	15.60	0.12	-76.57
Variance 0			0.13	-0.00	0.60			-0.02	1.41
Variance 1			-0.04	0.00	0.46			-0.01	0.29
Variance 2			-0.22	0.00	-0.41			-0.01	-0.04

Notes

Collected at 15:05. Sunny 60s. EB-1-11-16-16 here at 14:10.

Grab Samples



PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Laboratory Report

Prepared For:

**Georgia Power
2480 Maner Road
Atlanta, GA 30339**

Attention: Mr. Joju Abraham

Report Number: AZK0570

December 05, 2016

Project: CCR Event

Project #: Plant Yates

We appreciate the opportunity to provide the analytical support for your project. The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Approved:

A handwritten signature in black ink that reads "Betsy McDaniel" written over a horizontal line.

Project Manager

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All test results relate only to the samples analyzed.



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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

December 05, 2016

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
YGWC-46	AZK0570-01	Ground Water	11/16/16 10:05	11/17/16 09:50
YGWC-42	AZK0570-02	Ground Water	11/16/16 13:05	11/17/16 09:50
EB-1-11-16-16	AZK0570-03	Water	11/16/16 14:10	11/17/16 09:50
YGWC-43	AZK0570-04	Ground Water	11/16/16 15:05	11/17/16 09:50



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Georgia Power
 2480 Maner Road
 Atlanta GA, 30339

December 05, 2016

Attention: Mr. Joju Abraham

Report No.: AZK0570

Project: CCR Event

Client ID: YGWC-46

Lab Number ID: AZK0570-01

Date/Time Sampled: 11/16/2016 10:05:00AM

Date/Time Received: 11/17/2016 9:50:00AM

Matrix: Ground Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	1220	25	10	mg/L	SM 2540 C		1	11/18/16 14:30	11/18/16 14:30	6110490	JPT
Inorganic Anions											
Chloride	37	0.25	0.01	mg/L	EPA 300.0		1	11/18/16 15:35	11/20/16 08:52	6110512	RLC
Fluoride	0.04	0.30	0.02	mg/L	EPA 300.0	J	1	11/18/16 15:35	11/20/16 08:52	6110512	RLC
Sulfate	780	50	2.6	mg/L	EPA 300.0		50	11/18/16 15:35	11/20/16 10:37	6110512	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	11/21/16 10:15	11/23/16 22:03	6110508	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	11/21/16 10:15	11/23/16 22:03	6110508	CSW
Barium	0.0365	0.0100	0.0004	mg/L	EPA 6020B		1	11/21/16 10:15	11/23/16 22:03	6110508	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	11/21/16 10:15	11/29/16 18:38	6110508	CSW
Boron	2.03	0.400	0.0642	mg/L	EPA 6020B		10	11/21/16 10:15	12/01/16 12:00	6110508	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	11/21/16 10:15	11/23/16 22:03	6110508	CSW
Calcium	107	25.0	1.55	mg/L	EPA 6020B		50	11/21/16 10:15	12/01/16 13:47	6110508	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	11/21/16 10:15	11/23/16 22:03	6110508	CSW
Cobalt	0.0145	0.0100	0.0005	mg/L	EPA 6020B		1	11/21/16 10:15	11/23/16 22:03	6110508	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	11/21/16 10:15	11/23/16 22:03	6110508	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	11/21/16 10:15	11/23/16 22:03	6110508	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	11/21/16 10:15	11/23/16 22:03	6110508	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	11/21/16 10:15	11/23/16 22:03	6110508	CSW
Lithium	0.0075	0.0500	0.0021	mg/L	EPA 6020B	J	1	11/21/16 10:15	11/23/16 22:03	6110508	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	11/22/16 10:15	11/22/16 14:53	6110560	MTC



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Georgia Power
 2480 Maner Road
 Atlanta GA, 30339

December 05, 2016

Attention: Mr. Joju Abraham

Report No.: AZK0570

Project: CCR Event

Client ID: YGWC-42

Lab Number ID: AZK0570-02

Date/Time Sampled: 11/16/2016 1:05:00PM

Date/Time Received: 11/17/2016 9:50:00AM

Matrix: Ground Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	1420	25	10	mg/L	SM 2540 C		1	11/18/16 14:30	11/18/16 14:30	6110490	JPT
Inorganic Anions											
Chloride	4.7	0.25	0.01	mg/L	EPA 300.0		1	11/18/16 15:35	11/20/16 10:58	6110512	RLC
Fluoride	0.07	0.30	0.02	mg/L	EPA 300.0	J	1	11/18/16 15:35	11/20/16 10:58	6110512	RLC
Sulfate	940	50	2.6	mg/L	EPA 300.0		50	11/18/16 15:35	11/20/16 11:19	6110512	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	11/21/16 10:15	11/23/16 22:08	6110508	CSW
Arsenic	0.0017	0.0050	0.0016	mg/L	EPA 6020B	J	1	11/21/16 10:15	11/23/16 22:08	6110508	CSW
Barium	0.0541	0.0100	0.0004	mg/L	EPA 6020B		1	11/21/16 10:15	11/23/16 22:08	6110508	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	11/21/16 10:15	11/29/16 18:43	6110508	CSW
Boron	16.4	2.00	0.321	mg/L	EPA 6020B		50	11/21/16 10:15	12/01/16 13:53	6110508	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	11/21/16 10:15	11/23/16 22:08	6110508	CSW
Calcium	125	25.0	1.55	mg/L	EPA 6020B		50	11/21/16 10:15	12/01/16 13:53	6110508	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	11/21/16 10:15	11/23/16 22:08	6110508	CSW
Cobalt	0.0020	0.0100	0.0005	mg/L	EPA 6020B	J	1	11/21/16 10:15	11/23/16 22:08	6110508	CSW
Lead	0.0002	0.0050	0.0001	mg/L	EPA 6020B	J	1	11/21/16 10:15	11/23/16 22:08	6110508	CSW
Molybdenum	0.0027	0.0100	0.0017	mg/L	EPA 6020B	J	1	11/21/16 10:15	11/23/16 22:08	6110508	CSW
Selenium	0.0313	0.0100	0.0010	mg/L	EPA 6020B		1	11/21/16 10:15	11/23/16 22:08	6110508	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	11/21/16 10:15	11/23/16 22:08	6110508	CSW
Lithium	0.0221	0.0500	0.0021	mg/L	EPA 6020B	J	1	11/21/16 10:15	11/23/16 22:08	6110508	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	11/22/16 10:15	11/22/16 14:56	6110560	MTC



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 Atlanta GA, 30339

Attention: Mr. Joju Abraham

December 05, 2016

Report No.: AZK0570

Project: CCR Event

Client ID: EB-1-11-16-16

Lab Number ID: AZK0570-03

Date/Time Sampled: 11/16/2016 2:10:00PM

Date/Time Received: 11/17/2016 9:50:00AM

Matrix: Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	ND	25	10	mg/L	SM 2540 C		1	11/18/16 14:30	11/18/16 14:30	6110490	JPT
Inorganic Anions											
Chloride	0.06	0.25	0.01	mg/L	EPA 300.0	J	1	11/18/16 15:35	11/20/16 11:41	6110512	RLC
Fluoride	0.02	0.30	0.02	mg/L	EPA 300.0	J	1	11/18/16 15:35	11/20/16 11:41	6110512	RLC
Sulfate	ND	1.0	0.05	mg/L	EPA 300.0		1	11/18/16 15:35	11/20/16 11:41	6110512	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	11/21/16 10:15	11/23/16 22:14	6110508	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	11/21/16 10:15	11/23/16 22:14	6110508	CSW
Barium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	11/21/16 10:15	11/23/16 22:14	6110508	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	11/21/16 10:15	11/29/16 18:49	6110508	CSW
Boron	ND	0.0400	0.0064	mg/L	EPA 6020B		1	11/21/16 10:15	12/02/16 13:17	6110508	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	11/21/16 10:15	11/23/16 22:14	6110508	CSW
Calcium	0.0507	0.500	0.0311	mg/L	EPA 6020B	J	1	11/21/16 10:15	11/23/16 22:14	6110508	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	11/21/16 10:15	11/23/16 22:14	6110508	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	11/21/16 10:15	11/23/16 22:14	6110508	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	11/21/16 10:15	11/23/16 22:14	6110508	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	11/21/16 10:15	11/23/16 22:14	6110508	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	11/21/16 10:15	11/23/16 22:14	6110508	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	11/21/16 10:15	11/23/16 22:14	6110508	CSW
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	11/21/16 10:15	11/23/16 22:14	6110508	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	11/22/16 10:15	11/22/16 14:58	6110560	MTC



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Georgia Power
 2480 Maner Road
 Atlanta GA, 30339

December 05, 2016

Attention: Mr. Joju Abraham

Report No.: AZK0570

Project: CCR Event

Client ID: YGWC-43

Lab Number ID: AZK0570-04

Date/Time Sampled: 11/16/2016 3:05:00PM

Date/Time Received: 11/17/2016 9:50:00AM

Matrix: Ground Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	112	25	10	mg/L	SM 2540 C		1	11/18/16 14:30	11/18/16 14:30	6110490	JPT
Inorganic Anions											
Chloride	1.7	0.25	0.01	mg/L	EPA 300.0		1	11/18/16 15:35	11/20/16 12:02	6110512	RLC
Fluoride	0.20	0.30	0.02	mg/L	EPA 300.0	J	1	11/18/16 15:35	11/20/16 12:02	6110512	RLC
Sulfate	240	5.0	0.26	mg/L	EPA 300.0		5	11/18/16 15:35	11/20/16 16:38	6110512	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	11/21/16 10:15	11/23/16 22:20	6110508	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	11/21/16 10:15	11/23/16 22:20	6110508	CSW
Barium	0.0092	0.0100	0.0004	mg/L	EPA 6020B	J	1	11/21/16 10:15	11/23/16 22:20	6110508	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	11/21/16 10:15	11/29/16 18:55	6110508	CSW
Boron	0.406	0.0400	0.0064	mg/L	EPA 6020B		1	11/21/16 10:15	11/23/16 22:20	6110508	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	11/21/16 10:15	11/23/16 22:20	6110508	CSW
Calcium	3.79	0.500	0.0311	mg/L	EPA 6020B		1	11/21/16 10:15	11/23/16 22:20	6110508	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	11/21/16 10:15	11/23/16 22:20	6110508	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	11/21/16 10:15	11/23/16 22:20	6110508	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	11/21/16 10:15	11/23/16 22:20	6110508	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	11/21/16 10:15	11/23/16 22:20	6110508	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	11/21/16 10:15	11/23/16 22:20	6110508	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	11/21/16 10:15	11/23/16 22:20	6110508	CSW
Lithium	0.0095	0.0500	0.0021	mg/L	EPA 6020B	J	1	11/21/16 10:15	11/23/16 22:20	6110508	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	11/22/16 10:15	11/22/16 15:01	6110560	MTC



PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
 110 Technology Parkway, Peachtree Corners, GA 30092
 (770) 734-4200 FAX (770) 734-4201

Georgia Power
 2480 Maner Road
 Atlanta GA, 30339

Attention: Mr. Joju Abraham

December 05, 2016

Report No.: AZK0570

General Chemistry - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6110490 - SM 2540 C											
Blank (6110490-BLK1)						Prepared & Analyzed: 11/18/16					
Total Dissolved Solids	ND	25	10	mg/L							
LCS (6110490-BS1)						Prepared & Analyzed: 11/18/16					
Total Dissolved Solids	382	25	10	mg/L	400.00		96	84-108			
Duplicate (6110490-DUP1)						Source: AZK0570-03 Prepared & Analyzed: 11/18/16					
Total Dissolved Solids	ND	25	10	mg/L		ND				10	
Duplicate (6110490-DUP2)						Source: AZK0570-04 Prepared & Analyzed: 11/18/16					
Total Dissolved Solids	110	25	10	mg/L		112			2	10	



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 Atlanta GA, 30339

Attention: Mr. Joju Abraham

December 05, 2016

Report No.: AZK0570

Inorganic Anions - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6110512 - EPA 300.0											
Blank (6110512-BLK1) Prepared: 11/18/16 Analyzed: 11/20/16											
Chloride	ND	0.25	0.01	mg/L							
Fluoride	ND	0.30	0.02	mg/L							
Sulfate	ND	1.0	0.05	mg/L							
LCS (6110512-BS1) Prepared: 11/18/16 Analyzed: 11/20/16											
Chloride	10.3	0.25	0.01	mg/L	10.010		103	90-110			
Fluoride	10.3	0.30	0.02	mg/L	10.020		103	90-110			
Sulfate	10.1	1.0	0.05	mg/L	10.020		101	90-110			
Matrix Spike (6110512-MS1) Source: AZK0545-01 Prepared: 11/18/16 Analyzed: 11/20/16											
Chloride	11.5	0.25	0.01	mg/L	10.010	2.34	91	90-110			
Fluoride	9.23	0.30	0.02	mg/L	10.020	0.04	92	90-110			
Sulfate	9.46	1.0	0.05	mg/L	10.020	0.49	90	90-110			
Matrix Spike (6110512-MS2) Source: AZK0637-01 Prepared: 11/18/16 Analyzed: 11/20/16											
Chloride	10.5	0.25	0.01	mg/L	10.010	1.17	93	90-110			
Fluoride	9.72	0.30	0.02	mg/L	10.020	0.02	97	90-110			
Sulfate	11.1	1.0	0.05	mg/L	10.020	1.85	92	90-110			
Matrix Spike Dup (6110512-MSD1) Source: AZK0545-01 Prepared: 11/18/16 Analyzed: 11/20/16											
Chloride	12.2	0.25	0.01	mg/L	10.010	2.34	98	90-110	6	15	
Fluoride	10.0	0.30	0.02	mg/L	10.020	0.04	99	90-110	8	15	
Sulfate	10.2	1.0	0.05	mg/L	10.020	0.49	96	90-110	7	15	



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Attention: Mr. Joju Abraham

December 05, 2016

Report No.: AZK0570

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6110508 - EPA 3005A											
Blank (6110508-BLK1)											
						Prepared: 11/21/16 Analyzed: 11/23/16					
Antimony	ND	0.0030	0.0008	mg/L							
Arsenic	ND	0.0050	0.0016	mg/L							
Barium	ND	0.0100	0.0004	mg/L							
Beryllium	ND	0.0030	0.00008	mg/L							
Boron	ND	0.0400	0.0064	mg/L							
Cadmium	ND	0.0010	0.00007	mg/L							
Calcium	ND	0.500	0.0311	mg/L							
Chromium	ND	0.0100	0.0009	mg/L							
Cobalt	ND	0.0100	0.0005	mg/L							
Copper	ND	0.0250	0.0005	mg/L							
Lead	ND	0.0050	0.0001	mg/L							
Molybdenum	ND	0.0100	0.0017	mg/L							
Nickel	ND	0.0100	0.0006	mg/L							
Selenium	ND	0.0100	0.0010	mg/L							
Silver	ND	0.0100	0.0005	mg/L							
Thallium	ND	0.0010	0.0002	mg/L							
Vanadium	ND	0.0100	0.0071	mg/L							
Zinc	ND	0.0100	0.0021	mg/L							
Lithium	ND	0.0500	0.0021	mg/L							
LCS (6110508-BS1)											
						Prepared: 11/21/16 Analyzed: 11/23/16					
Antimony	0.114	0.0030	0.0008	mg/L	0.10000		114	80-120			
Arsenic	0.105	0.0050	0.0016	mg/L	0.10000		105	80-120			
Barium	0.103	0.0100	0.0004	mg/L	0.10000		103	80-120			
Beryllium	0.0973	0.0030	0.00008	mg/L	0.10000		97	80-120			
Boron	0.978	0.0400	0.0064	mg/L	1.0000		98	80-120			
Cadmium	0.106	0.0010	0.00007	mg/L	0.10000		106	80-120			
Calcium	1.10	0.500	0.0311	mg/L	1.0000		110	80-120			
Chromium	0.107	0.0100	0.0009	mg/L	0.10000		107	80-120			
Cobalt	0.108	0.0100	0.0005	mg/L	0.10000		108	80-120			
Copper	0.103	0.0250	0.0005	mg/L	0.10000		103	80-120			
Lead	0.106	0.0050	0.0001	mg/L	0.10000		106	80-120			
Molybdenum	0.109	0.0100	0.0017	mg/L	0.10000		109	80-120			
Nickel	0.105	0.0100	0.0006	mg/L	0.10000		105	80-120			
Selenium	0.116	0.0100	0.0010	mg/L	0.10000		116	80-120			
Silver	0.106	0.0100	0.0005	mg/L	0.10000		106	80-120			
Thallium	0.104	0.0010	0.0002	mg/L	0.10000		104	80-120			
Vanadium	0.105	0.0100	0.0071	mg/L	0.10000		105	80-120			
Zinc	0.108	0.0100	0.0021	mg/L	0.10000		108	80-120			
Lithium	0.0972	0.0500	0.0021	mg/L	0.10000		97	80-120			



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Georgia Power
 2480 Maner Road
 Atlanta GA, 30339

Attention: Mr. Joju Abraham

December 05, 2016

Report No.: AZK0570

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6110508 - EPA 3005A											
Matrix Spike (6110508-MS1)			Source: AZK0570-01				Prepared: 11/21/16 Analyzed: 11/23/16				
Antimony	0.114	0.0030	0.0008	mg/L	0.10000	ND	114	75-125			
Arsenic	0.109	0.0050	0.0016	mg/L	0.10000	ND	109	75-125			
Barium	0.141	0.0100	0.0004	mg/L	0.10000	0.0365	104	75-125			
Beryllium	0.0932	0.0030	0.00008	mg/L	0.10000	ND	93	75-125			
Boron	2.83	2.00	0.321	mg/L	1.0000	2.03	80	75-125			
Cadmium	0.0998	0.0010	0.00007	mg/L	0.10000	ND	100	75-125			
Calcium	107	25.0	1.55	mg/L	1.0000	107	NR	75-125			QM-02
Chromium	0.102	0.0100	0.0009	mg/L	0.10000	ND	102	75-125			
Cobalt	0.116	0.0100	0.0005	mg/L	0.10000	0.0145	101	75-125			
Copper	0.0931	0.0250	0.0005	mg/L	0.10000	ND	93	75-125			
Lead	0.0987	0.0050	0.0001	mg/L	0.10000	ND	99	75-125			
Molybdenum	0.110	0.0100	0.0017	mg/L	0.10000	ND	110	75-125			
Nickel	0.108	0.0100	0.0006	mg/L	0.10000	0.0109	97	75-125			
Selenium	0.116	0.0100	0.0010	mg/L	0.10000	ND	116	75-125			
Silver	0.0975	0.0100	0.0005	mg/L	0.10000	ND	98	75-125			
Thallium	0.0997	0.0010	0.0002	mg/L	0.10000	ND	100	75-125			
Vanadium	0.106	0.0100	0.0071	mg/L	0.10000	ND	106	75-125			
Zinc	0.101	0.0100	0.0021	mg/L	0.10000	0.0024	99	75-125			
Lithium	0.0949	0.0500	0.0021	mg/L	0.10000	0.0075	87	75-125			
Matrix Spike Dup (6110508-MSD1)			Source: AZK0570-01				Prepared: 11/21/16 Analyzed: 11/23/16				
Antimony	0.115	0.0030	0.0008	mg/L	0.10000	ND	115	75-125	1	20	
Arsenic	0.110	0.0050	0.0016	mg/L	0.10000	ND	110	75-125	0.6	20	
Barium	0.140	0.0100	0.0004	mg/L	0.10000	0.0365	103	75-125	0.7	20	
Beryllium	0.0916	0.0030	0.00008	mg/L	0.10000	ND	92	75-125	2	20	
Boron	2.80	2.00	0.321	mg/L	1.0000	2.03	77	75-125	0.9	20	
Cadmium	0.102	0.0010	0.00007	mg/L	0.10000	ND	102	75-125	2	20	
Calcium	106	25.0	1.55	mg/L	1.0000	107	NR	75-125	1	20	QM-02
Chromium	0.105	0.0100	0.0009	mg/L	0.10000	ND	105	75-125	3	20	
Cobalt	0.112	0.0100	0.0005	mg/L	0.10000	0.0145	97	75-125	3	20	
Copper	0.0953	0.0250	0.0005	mg/L	0.10000	ND	95	75-125	2	20	
Lead	0.101	0.0050	0.0001	mg/L	0.10000	ND	101	75-125	2	20	
Molybdenum	0.114	0.0100	0.0017	mg/L	0.10000	ND	114	75-125	3	20	
Nickel	0.107	0.0100	0.0006	mg/L	0.10000	0.0109	97	75-125	0.7	20	
Selenium	0.120	0.0100	0.0010	mg/L	0.10000	ND	120	75-125	3	20	
Silver	0.0992	0.0100	0.0005	mg/L	0.10000	ND	99	75-125	2	20	
Thallium	0.101	0.0010	0.0002	mg/L	0.10000	ND	101	75-125	1	20	
Vanadium	0.106	0.0100	0.0071	mg/L	0.10000	ND	106	75-125	0.08	20	
Zinc	0.102	0.0100	0.0021	mg/L	0.10000	0.0024	99	75-125	0.5	20	
Lithium	0.101	0.0500	0.0021	mg/L	0.10000	0.0075	94	75-125	7	20	



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Georgia Power
 2480 Maner Road
 Atlanta GA, 30339

Attention: Mr. Joju Abraham

December 05, 2016

Report No.: AZK0570

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6110508 - EPA 3005A											
Post Spike (6110508-PS1)			Source: AZK0570-01			Prepared: 11/21/16 Analyzed: 11/23/16					
Antimony	112			ug/L	100.00	0.240	111	80-120			
Arsenic	106			ug/L	100.00	0.856	105	80-120			
Barium	135			ug/L	100.00	36.5	99	80-120			
Beryllium	94.1			ug/L	100.00	0.0351	94	80-120			
Boron	2720			ug/L	1000.0	2030	69	80-120			QM-02
Cadmium	97.9			ug/L	100.00	0.0406	98	80-120			
Calcium	104000			ug/L	1000.0	107000	NR	80-120			QM-02
Chromium	102			ug/L	100.00	0.298	102	80-120			
Cobalt	113			ug/L	100.00	14.5	99	80-120			
Copper	93.4			ug/L	100.00	0.0318	93	80-120			
Lead	95.7			ug/L	100.00	0.0679	96	80-120			
Molybdenum	108			ug/L	100.00	0.953	107	80-120			
Nickel	110			ug/L	100.00	10.9	99	80-120			
Selenium	117			ug/L	100.00	0.746	116	80-120			
Silver	97.5			ug/L	100.00	0.0337	97	80-120			
Thallium	97.9			ug/L	100.00	0.125	98	80-120			
Vanadium	107			ug/L	100.00	-0.396	107	80-120			
Zinc	104			ug/L	100.00	2.37	101	80-120			
Lithium	104			ug/L	100.00	7.51	97	80-120			

Batch 6110560 - EPA 7470A

Blank (6110560-BLK1)					Prepared & Analyzed: 11/22/16						
Mercury	ND	0.00050	0.000041	mg/L							
LCS (6110560-BS1)					Prepared & Analyzed: 11/22/16						
Mercury	0.00246	0.00050	0.000041	mg/L	2.5000E-3		98	80-120			



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Attention: Mr. Joju Abraham

December 05, 2016

Report No.: AZK0570

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6110560 - EPA 7470A											
Matrix Spike (6110560-MS1)			Source: AZK0639-05			Prepared & Analyzed: 11/22/16					
Mercury	0.00236	0.00050	0.000041	mg/L	2.5000E-3	ND	94	75-125			
Matrix Spike Dup (6110560-MSD1)			Source: AZK0639-05			Prepared & Analyzed: 11/22/16					
Mercury	0.00238	0.00050	0.000041	mg/L	2.5000E-3	ND	95	75-125	0.9	20	
Post Spike (6110560-PS1)			Source: AZK0639-05			Prepared & Analyzed: 11/22/16					
Mercury	1.69			ug/L	1.6667	-0.00940	102	80-120			



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Atlanta GA, 30339

Attention: Mr. Joju Abraham

December 05, 2016

Legend

Definition of Laboratory Terms

- ND** - Not Detected at levels equal to or greater than the MDL
BRL - Not Detected at levels equal to or greater than the RL
RL - Reporting Limit **MDL** - Method Detection Limit
SOP - Method run per Pace Standard Operating Procedure
CFU - Colony Forming Units
DF - Dilution Factor **TIC** - Tentatively Identified Compound

Sample Information

N-Nitrosodiphenylamine breaks down to diphenylamine in the GCMS; both analytes are reported as N-Nitrosodiphenylamine. Pace is not NELAC certified for N-Nitrosodiphenylamine.

Phthalic acid and phthalic anhydride are reported as dimethyl phthalate

Maleic acid and maleic anhydride are reported as dimethyl malate

1,2-Diphenylhydrazine breaks down to azobenzene in the GCMS; both analytes are reported as azobenzene

Definition of Qualifiers

- QM-02** The spike recovery is outside acceptance limits due to insignificant spike amount as compared to sample concentration.
J Estimated value less than Reporting Limit (RL) but greater than Method Detection Limit(MDL) (CLP J-Flag).

Note: Unless otherwise noted, all results are reported on an as received basis.



Pace Analytical Services, Inc.
 110 TECHNOLOGY PARKWAY, PEACHTREE CORNERS, GA 30092
 (770) 734-4200 : FAX (770) 734-4201 : www.asi-lab.com

CHAIN OF CUSTODY RECORD

CLIENT NAME: Georgia Power
CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER: 241 Ralph McGill Blvd SE B10185
 Atlanta, GA 30308
 404-506-7239

REPORT TO: Lauren Petty
CC: Maria Padilla
 Heath McCorkle

REQUESTED COMPLETION DATE: PO #: laburch@southernco.com

PROJECT NAME/STATE: Plant Yates Phase II Facilities
 Phase 2 CCR

CONTAINER TYPE	PRESERVATION	ANALYSIS REQUESTED				CONTAINER TYPE	PRESERVATION
		P	P	P	P		
3		(EPA 6020/7470) Metals App. III & IV	(EPA 300.0 & SM 2540C) Cl, F, SO ₄ & TDS	Radium 226 & 228 (SW-846 9315/9320)			
3							
3							
4							

LAB #	DATE/TIME	RELINQUISHED BY	DATE/TIME	LAB #	DATE/TIME	RELINQUISHED BY	DATE/TIME
1	11-16-16 1005	GW	11-16-16 1600	2	11-17-16 0950	GW	11-17-16 0950
2	11-16-16 1305	GW		3		W	
3	11-16-16 1410	W		4		GW	
4	11-16-16 1505	GW					

SAMPLED BY AND TITLE: Chris Facke ACC
RECEIVED BY: M. Johnson
DATE/TIME: 11/17/16 0950
TEMPERATURE: 16°C

RELINQUISHED BY: J. Lak
DATE/TIME: 11-17-16 0950

SAMPLE SHIPPED VIA: UPS
DATE/TIME: 11-17-16 0950

OTHER FS: CLIENT
TRACKING #: A2K0570

ENTERED INTO LIMS: MR



PACE ANALYTICAL SERVICES, INC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

LOG-IN CHECKLIST

Printed: 12/5/2016 2:15:38PM

Attn: Mr. Joju Abraham

Client: Georgia Power

Project: CCR Event

Date Received: 11/17/16 09:50

Work Order: AZK0570

Logged In By: Mohammad M. Rahman

OBSERVATIONS

#Samples: 4

#Containers: 13

Minimum Temp(C): 1.0

Maximum Temp(C): 1.0

Custody Seal(s) Used: Yes

CHECKLIST ITEMS

- COC included with Samples YES
- Sample Container(s) Intact YES
- Chain of Custody Complete YES
- Sample Container(s) Match COC YES
- Custody seal Intact YES
- Temperature in Compliance YES
- Sufficient Sample Volume for Analysis YES
- Zero Headspace Maintained for VOA Analyses YES
- Samples labeled preserved (If Applicable) YES
- Samples received within Allowable Hold Times YES
- Samples Received on Ice YES
- Preservation Confirmed YES

Comments:

December 22, 2016

Maria Padilla
GA Power
2480 Maner Rd
Atlanta, GA 30339

RE: Project: Plant Yates
Pace Project No.: 30203117

Dear Maria Padilla:

Enclosed are the analytical results for sample(s) received by the laboratory on November 18, 2016. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Jacquelyn Collins
jacquelyn.collins@pacelabs.com
Project Manager

Enclosures



REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

CERTIFICATIONS

Project: Plant Yates

Pace Project No.: 30203117

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601

L-A-B DOD-ELAP Accreditation #: L2417

Alabama Certification #: 41590

Arizona Certification #: AZ0734

Arkansas Certification

California Certification #: 04222CA

Colorado Certification

Connecticut Certification #: PH-0694

Delaware Certification

Florida/TNI Certification #: E87683

Georgia Certification #: C040

Guam Certification

Hawaii Certification

Idaho Certification

Illinois Certification

Indiana Certification

Iowa Certification #: 391

Kansas/TNI Certification #: E-10358

Kentucky Certification #: 90133

Louisiana DHH/TNI Certification #: LA140008

Louisiana DEQ/TNI Certification #: 4086

Maine Certification #: PA00091

Maryland Certification #: 308

Massachusetts Certification #: M-PA1457

Michigan/PADEP Certification

Missouri Certification #: 235

Montana Certification #: Cert 0082

Nebraska Certification #: NE-05-29-14

Nevada Certification #: PA014572015-1

New Hampshire/TNI Certification #: 2976

New Jersey/TNI Certification #: PA 051

New Mexico Certification #: PA01457

New York/TNI Certification #: 10888

North Carolina Certification #: 42706

North Dakota Certification #: R-190

Oregon/TNI Certification #: PA200002

Pennsylvania/TNI Certification #: 65-00282

Puerto Rico Certification #: PA01457

Rhode Island Certification #: 65-00282

South Dakota Certification

Tennessee Certification #: TN2867

Texas/TNI Certification #: T104704188-14-8

Utah/TNI Certification #: PA014572015-5

USDA Soil Permit #: P330-14-00213

Vermont Dept. of Health: ID# VT-0282

Virgin Island/PADEP Certification

Virginia/VELAP Certification #: 460198

Washington Certification #: C868

West Virginia DEP Certification #: 143

West Virginia DHHR Certification #: 9964C

Wisconsin Certification

Wyoming Certification #: 8TMS-L

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: Plant Yates

Pace Project No.: 30203117

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30203117001	YGWC-46	Water	11/16/16 10:05	11/18/16 11:40
30203117002	YGWC-42	Water	11/16/16 13:05	11/18/16 11:40
30203117003	EB-1-11-16-16	Water	11/16/16 14:10	11/18/16 11:40
30203117004	YGWC-43	Water	11/16/16 15:05	11/18/16 11:40

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: Plant Yates

Pace Project No.: 30203117

Lab ID	Sample ID	Method	Analysts	Analytes Reported
30203117001	YGWC-46	EPA 9315	LAL	1
		EPA 9320	JAL	1
		Total Radium Calculation	CMC	1
30203117002	YGWC-42	EPA 9315	LAL	1
		EPA 9320	JAL	1
		Total Radium Calculation	CMC	1
30203117003	EB-1-11-16-16	EPA 9315	LAL	1
		EPA 9320	JAL	1
		Total Radium Calculation	CMC	1
30203117004	YGWC-43	EPA 9315	LAL	1
		EPA 9320	JAL	1
		Total Radium Calculation	CMC	1

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates
Pace Project No.: 30203117

Parameters		Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226		EPA 9315	0.380 ± 0.406 (0.776) C:91% T:NA	pCi/L	12/07/16 10:57	13982-63-3	
Radium-228		EPA 9320	0.259 ± 0.564 (1.16) C:64% T:82%	pCi/L	12/21/16 19:39	15262-20-1	
Total Radium		Total Radium Calculation	0.639 ± 0.970 (1.94)	pCi/L	12/22/16 16:27	7440-14-4	

Parameters		Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226		EPA 9315	2.60 ± 0.644 (0.397) C:91% T:NA	pCi/L	12/07/16 10:57	13982-63-3	
Radium-228		EPA 9320	1.41 ± 0.565 (0.865) C:65% T:78%	pCi/L	12/21/16 19:39	15262-20-1	
Total Radium		Total Radium Calculation	4.01 ± 1.21 (1.26)	pCi/L	12/22/16 16:27	7440-14-4	

Parameters		Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226		EPA 9315	0.0989 ± 0.142 (0.301) C:96% T:NA	pCi/L	12/07/16 10:57	13982-63-3	
Radium-228		EPA 9320	0.698 ± 0.476 (0.877) C:63% T:87%	pCi/L	12/21/16 19:39	15262-20-1	
Total Radium		Total Radium Calculation	0.797 ± 0.618 (1.18)	pCi/L	12/22/16 16:27	7440-14-4	

Parameters		Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226		EPA 9315	0.107 ± 0.171 (0.374) C:70% T:NA	pCi/L	12/07/16 10:57	13982-63-3	
Radium-228		EPA 9320	0.666 ± 0.431 (0.780) C:65% T:85%	pCi/L	12/21/16 19:39	15262-20-1	
Total Radium		Total Radium Calculation	0.773 ± 0.602 (1.15)	pCi/L	12/22/16 16:27	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Yates

Pace Project No.: 30203117

QC Batch: 241712 Analysis Method: EPA 9315

QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium

Associated Lab Samples: 30203117001, 30203117002, 30203117003, 30203117004

METHOD BLANK: 1188126 Matrix: Water

Associated Lab Samples: 30203117001, 30203117002, 30203117003, 30203117004

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.104 ± 0.157 (0.342) C:95% T:NA	pCi/L	12/07/16 09:29	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Yates
Pace Project No.: 30203117

QC Batch: 242658 Analysis Method: EPA 9320
QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228
Associated Lab Samples: 30203117001, 30203117002, 30203117003, 30203117004

METHOD BLANK: 1192650 Matrix: Water
Associated Lab Samples: 30203117001, 30203117002, 30203117003, 30203117004

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.455 ± 0.420 (0.810) C:64% T:90%	pCi/L	12/21/16 19:39	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: Plant Yates

Pace Project No.: 30203117

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval).

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

SAMPLE QUALIFIERS

Sample: 30203117001

[1] Low volume, client notified. Client advised to proceed.

REPORT OF LABORATORY ANALYSIS

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Chain of Custody



Results Requested By: 12/20/2016

Owner Received Date:

Workorder Name: Plant Yates

Workorder: AZK0570

Report To:	Subcontract To:	Requested Analysis							
Betsy McDaniel Pace Analytical Atlanta 110 Technology Parkway Peachtree Corners, GA 30092 Phone (770)-734-4200	Pace - Pittsburgh 1638 Roseytown Road Stes. 2,3,4 Greensburg, PA 15601 Phone (724) 850-5600	Radium 226, 228, Total							
Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers	Date/Time	Received By	Comments
1	YGWC-46	G	11/16/2016 10:05	AZK0570-01	GW	3 ONH			
2	YGWC-42	G	11/16/2016 13:05	AZK0570-02	GW	1			
3	EB-1-11-16-16	G	11/16/2016 14:10	AZK0570-03	W	1			
4	YGWC-43	G	11/16/2016 15:05	AZK0570-04	GW	2			
5									
6									
7									
8									
9									
10									
Transfers	Released By	Date/Time	Received By	Date/Time	Comments				
1			Karen Hill	11-18-16 11:40					
2									
3									

WO#: 30203117

Cooler Temperature on Receipt N/A °C Custody Seal Y or N Received on Ice Y or N Sample Intact Y or N

***In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC

This chain of custody is considered complete as is since this information is available in the owner laboratory.

30203117

Pace Analytical Services, Inc.
 110 TECHNOLOGY PARKWAY, PEACHTREE CORNERS, GA 30092
 (770) 734-4200 : FAX (770) 734-4201 : www.asi-lab.com

CHAIN OF CUSTODY RECORD

PAGE: 1 OF 1



CLIENT NAME: Georgia Power
 CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER: 241 Ralph McGill Blvd SE B10185 Atlanta, GA 30308 404-506-7239
 REPORT TO: Lauren Petty
 CC: Maria Padilla Heath McCorkle
 REQUESTED COMPLETION DATE: laburch@southernco.com
 PROJECT NAME/STATE: Plant Yates Phase II Facilities
 PROJECT #: Phase 2 CCR

CONTAINER TYPE	ANALYSIS REQUESTED			CONTAINER TYPE	PRESERVATION	L A B N U M B E R
	P	P	P			
# of	3	7	3			
C O N T A I N E R S	3	3	3			
	Metals App. III & IV (EPA 6020/470)	Cl, F, SO ₄ & TDS (EPA 300.0 & SM 2540C)	Radium 226 & 228 (SW-846 9315/9320)			
	1	1	1			
	1	1	1			
	1	1	1			
	1	1	2			

CONTAINER TYPE: P - PLASTIC, A - AMBER GLASS, G - CLEAR GLASS, V - VOA VIAL, S - STERILE, O - OTHER
 PRESERVATION: 1 - HCl, ≤6°C, 2 - H₂SO₄, ≤6°C, 3 - HNO₃, 4 - NaOH, ≤6°C, 5 - NaOH/ZnAc, ≤6°C, 6 - Na₂S₂O₃, ≤6°C, 7 - ≤6°C not frozen
 *MATRIX CODES: DW - DRINKING WATER, WW - WASTEWATER, GW - GROUNDWATER, SW - SURFACE WATER, W - WATER, S - SOIL, SL - SLUDGE, SD - SOLID, A - AIR, L - LIQUID, P - PRODUCT
 REMARKS/ADDITIONAL INFORMATION

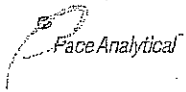
SAMPLED BY AND TITLE: Chris Parker
 RECEIVED BY: M. Dorman
 DATE/TIME: 11-16-16 1600
 DATE/TIME: 11-17-16 0930
 SAMPLE SHIPPED VIA: UPS, FED/EX, USPS, COURIER, CLIENT, OTHER FS
 Custody Seal: Intact, Broken, Not Present
 # of Coolers: 1
 Temperature: 1°C Min, 1°C Max

RELINQUISHED BY: [Signature]
 DATE/TIME: 11-17-16 0930
 RELINQUISHED BY: [Signature]
 DATE/TIME: [Blank]
 LAB #: A2K0570
 Entered into LIMS: [Signature]
 Tracking #:

Plant Yates COC Phase II Facilities.xlsx

Sample Condition Upon Receipt Pittsburgh

30203117



Client Name: Pace Georgia Project # _____

Courier: Fed Ex UPS USPS Client Commercial Pace Other _____

Tracking #: 6812 5100 4790

Custody Seal on Cooler/Box Present: yes no Seals intact: yes no

Thermometer Used N/A Type of Ice: Wet Blue None

Cooler Temperature Observed Temp N/A °C Correction Factor: N/A °C Final Temp: N/A °C
Temp should be above freezing to 6°C

Date and initials of person examining contents: JK 11-19-16

Comments:	Yes	No	N/A	
Chain of Custody Present:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4.
Sample Labels match COC: -Includes date/time/ID/Analysis Matrix: <u>wt</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6.
Short Hold Time Analysis (<72hr remaining):	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7.
Rush Turn Around Time Requested:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	8.
Sufficient Volume:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	9. <u>Low volume in sample vial. ~ half the 1/2 gallon full</u>
Correct Containers Used: -Pace Containers Used:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	10.
Containers Intact:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	11.
Filtered volume received for Dissolved tests	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	12.
All containers needing preservation have been checked.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
exceptions: VOA, coliform, TOC, O&G, Phenolics				Initial when completed: <u>JK</u> Date/time of preservation: _____
				Lot # of added preservative: _____
Headspace in VOA Vials (>6mm):	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	14.
Trip Blank Present:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	15.
Trip Blank Custody Seals Present	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Rad Aqueous Samples Screened > 0.5 mrem/hr	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Initial when completed: <u>JK</u> Date: <u>11-19-16</u>

Client Notification/ Resolution:
 Person Contacted: B. Madhavi Date/Time: 11/19/16 Contacted By: [Signature]
 Comments/ Resolution: Proceed with sample preservation.

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)
 *PM review is documented electronically in LIMS. When the Project Manager closes the SRF Review schedule in LIMS. The review is in the Status section of the Workorder Edit Screen.

Quality Control Sample Performance Assessment

Analyst Must Manually Enter All Fields Highlighted in Yellow.



Test: Ra-226
Analyst: LAL
Date: 12/6/2016
Worklist: 32687
Matrix: DW

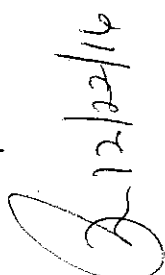
Method Blank Assessment	
MB Sample ID	1188126
MB concentration:	0.104
M/B Counting Uncertainty:	0.157
MB MDC:	0.342
MB Numerical Performance Indicator:	1.31
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	
Count Date:	12/7/2016
Spike I.D.:	16-026
Spike Concentration (pCi/mL):	44.673
Volume Used (mL):	0.10
Aliquot Volume (L, g, F):	0.501
Target Conc. (pCi/L, g, F):	8.916
Uncertainty (Calculated):	0.419
Result (pCi/L, g, F):	8.412
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.879
Numerical Performance Indicator:	-1.01
Percent Recovery:	94.95%
Status vs Numerical Indicator:	N/A
Status vs Recovery:	Pass

Duplicate Sample Assessment	
Sample I.D.:	30203117004
Duplicate Sample I.D.:	30203117004DUP
Sample Result (pCi/L, g, F):	0.107
Sample Result Counting Uncertainty (pCi/L, g, F):	0.171
Sample Duplicate Result (pCi/L, g, F):	0.356
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.245
Are sample and/or duplicate results below MDC?	See Below ##
Duplicate Numerical Performance Indicator:	* -1.635
Duplicate RPD:	107.69%
Duplicate Status vs Numerical Indicator:	N/A
Duplicate Status vs RPD:	Fail***

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

* Numerical Indicator is acceptable.


***Batch must be re-prepped due to unacceptable precision.

Sample Matrix Spike Control Assessment	
Sample Collection Date:	
Sample I.D.:	
Sample MS I.D.:	
Sample MSD I.D.:	
Spike I.D.:	
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	
Spike Volume Used in MS (mL):	
Spike Volume Used in MSD (mL):	
MS Aliquot (L, g, F):	
MS Target Conc. (pCi/L, g, F):	
MSD Aliquot (L, g, F):	
MSD Target Conc. (pCi/L, g, F):	
Spike uncertainty (calculated):	
Sample Result:	
Sample Result Counting Uncertainty (pCi/L, g, F):	
Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Sample Matrix Spike Duplicate Counting Uncertainty (pCi/L, g, F):	
MS Numerical Performance Indicator:	
MSD Numerical Performance Indicator:	
MS Percent Recovery:	
MSD Percent Recovery:	
MS Status vs Numerical Indicator:	
MSD Status vs Numerical Indicator:	
MS Status vs Recovery:	
MSD Status vs Recovery:	

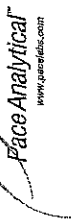
Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.:	
Sample MS I.D.:	
Sample MSD I.D.:	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Sample Matrix Spike Duplicate Counting Uncertainty (pCi/L, g, F):	
Duplicate Numerical Performance Indicator:	
MS/MSD Duplicate RPD:	
MS/MSD Duplicate Status vs Numerical Indicator:	
MS/MSD Duplicate Status vs RPD:	

TAR DW QC

Printed: 12/22/2016 6:11 PM

1 of 1

Quality Control Sample Performance Assessment



Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-228
Analyst: JAL
Date: 12/15/2016
Worklist: 32865
Matrix: DW

Method Blank Assessment

MB Sample ID: 1192850
MB concentration: 0.455
M/B Counting Uncertainty: 0.412
MB MDC: 0.810
MB Numerical Performance Indicator: 2.17
MB Status vs Numerical Indicator: N/A
MB Status vs. MDC: Pass

Laboratory Control Sample Assessment

LCS (Y or N)? LCS032865

Count Date: 12/21/2016
Spike I.D.: 16-027
Spike Concentration (pCi/mL): 25.764
Volume Used (mL): 0.20
Aliquot Volume (L, g, F): 0.799
Target Conc. (pCi/L, g, F): 6.448
Uncertainty (Calculated): 0.464
Result (pCi/L, g, F): 6.959
LCS/LCSD Counting Uncertainty (pCi/L, g, F): 0.802
Numerical Performance Indicator: 1.08
Percent Recovery: 107.92%
Status vs Numerical Indicator: N/A
Status vs Recovery: Pass

Duplicate Sample Assessment

Sample I.D.: 30203120001
Duplicate Sample I.D.: 30203120001DUP
Sample Result (pCi/L, g, F): 0.579
Sample Duplicate Result (pCi/L, g, F): 0.423
Sample Duplicate Counting Uncertainty (pCi/L, g, F): 0.205
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F): 0.366
Are sample and/or duplicate results below MDC? See Below ##
Duplicate Numerical Performance Indicator: 1.308
Duplicate RPD: 95.27%
Duplicate Status vs Numerical Indicator: N/A
Duplicate Status vs RPD: Fail**

Sample Matrix Spike Control Assessment

Sample Collection Date:
Sample I.D.:
Sample MS I.D.:
Sample MSD I.D.:
Spike I.D.:
MS/MSD Decay Corrected Spike Concentration (pCi/mL):
Spike Volume Used in MS (mL):
Spike Volume Used in MSD (mL):
MS Aliquot (L, g, F):
MS Target Conc. (pCi/L, g, F):
MSD Aliquot (L, g, F):
MSD Target Conc. (pCi/L, g, F):
Spike uncertainty (calculated):
Sample Result:
Sample Result Counting Uncertainty (pCi/L, g, F):
Sample Matrix Spike Result:
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):
Sample Matrix Spike Duplicate Result:
Matrix Spike Duplicate Counting Uncertainty (pCi/L, g, F):
MS Numerical Performance Indicator:
MSD Numerical Performance Indicator:
MS Percent Recovery:
MSD Percent Recovery:
MS Status vs Numerical Indicator:
MSD Status vs Numerical Indicator:
MS Status vs Recovery:
MSD Status vs Recovery:

Matrix Spike/Matrix Spike Duplicate Sample Assessment

Sample I.D.:
Sample MS I.D.:
Sample MSD I.D.:
Sample Matrix Spike Result:
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):
Sample Matrix Spike Duplicate Result:
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):
Duplicate Numerical Performance Indicator:
MS/MSD Duplicate Status vs Numerical Indicator:
MS/MSD Duplicate Status vs RPD:

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

Numerical Indicator is acceptable.

***Batch must be re-prepped due to unacceptable precision.

12/22/16

Product Name: Low-Flow System

Date: 2017-02-27 10:49:10

Project Information:

Operator Name Ryan Walker
Company Name Atlantic Coast Consulting, Inc.
Project Name Plant Yates AP - Phase 2 CCR
Site Name Plant Yates - Phase 2
Latitude 33° 27' 11.48"
Longitude -84° -53' -55.25"
Sonde SN 466058
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type Bladder
Tubing Type Poly
Tubing Diameter .375 in
Tubing Length 65 ft

Pump placement from TOC 55 ft

Well Information:

Well ID YGWC-42
Well diameter 2 in
Well Total Depth 60 ft
Screen Length 10 ft
Depth to Water 28.55 ft

Pumping Information:

Final Pumping Rate 75 mL/min
Total System Volume 1.896712 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 15 in
Total Volume Pumped 4.88 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	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	10:26:56	2699.99	15.80	6.17	1573.05	11.40	29.80	0.76	63.20
Last 5	10:31:56	2999.99	15.77	6.16	1604.38	9.84	29.80	0.50	60.60
Last 5	10:36:56	3299.96	15.84	6.11	1639.79	9.19	29.80	0.50	60.59
Last 5	10:41:56	3599.96	15.77	6.11	1668.95	6.16	29.80	0.48	59.97
Last 5	10:46:56	3899.96	15.69	6.09	1694.06	4.82	29.80	0.49	59.25
Variance 0			0.08	-0.05	35.40			0.01	-0.01
Variance 1			-0.07	-0.00	29.17			-0.02	-0.62
Variance 2			-0.09	-0.01	25.11			0.01	-0.72

Notes

Cloudy 50's. Sampled at 10:50.

Grab Samples

Product Name: Low-Flow System

Date: 2017-02-24 14:06:07

Project Information:

Operator Name Ryan Walker
Company Name Atlantic Coast Consulting, Inc.
Project Name Plant Yates AP - Phase 2 CCR
Site Name Plant Yates - Phase 2
Latitude 33° 27' 18.14"
Longitude -84° 53' -56.75"
Sonde SN 466058
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type Bladder
Tubing Type Poly
Tubing Diameter .375 in
Tubing Length 85 ft

Pump placement from TOC 75 ft

Well Information:

Well ID YGWC-43
Well diameter 2 in
Well Total Depth 80 ft
Screen Length 10 ft
Depth to Water 14.08 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 2.331085 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 2.64 in
Total Volume Pumped 12 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	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	13:42:37	2099.99	18.79	6.33	323.06	7.81	14.30	0.10	-14.40
Last 5	13:47:37	2399.99	18.94	6.36	321.82	7.92	14.30	0.11	-19.87
Last 5	13:52:37	2699.99	18.87	6.37	322.03	6.42	14.30	0.12	-22.41
Last 5	13:57:37	2999.98	18.93	6.37	321.36	5.60	14.30	0.13	-24.02
Last 5	14:02:39	3301.98	18.54	6.39	320.49	4.84	14.30	0.13	-25.45
Variance 0			-0.07	0.01	0.21			0.01	-2.54
Variance 1			0.05	0.01	-0.66			0.01	-1.61
Variance 2			-0.38	0.02	-0.87			0.00	-1.43

Notes

Sunny 70's. Sampled at 1410.

Grab Samples



PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Laboratory Report

Prepared For:

**Georgia Power
2480 Maner Road
Atlanta, GA 30339**

Attention: Mr. Joju Abraham

Report Number: AAB0913

March 08, 2017

Project: CCR Event

Project #: Plant Yates

We appreciate the opportunity to provide the analytical support for your project. The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Approved:

A handwritten signature in black ink, appearing to read "Maya Tarkenton", written over a horizontal line.

Project Manager

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All test results relate only to the samples analyzed.



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(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

March 08, 2017

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
YGWA-47	AAB0913-01	Ground Water	02/24/17 12:00	02/27/17 15:15
YGWC-43	AAB0913-02	Ground Water	02/24/17 14:10	02/27/17 15:15
YGWC-45	AAB0913-03	Ground Water	02/27/17 10:45	02/27/17 15:15
YGWC-42	AAB0913-04	Ground Water	02/27/17 10:50	02/27/17 15:15
YGWC-46	AAB0913-05	Ground Water	02/27/17 12:20	02/27/17 15:15
EB-1-2-27-17	AAB0913-06	Water	02/27/17 11:40	02/27/17 15:15
Dup-1	AAB0913-07	Ground Water	02/27/17 00:00	02/27/17 15:15



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Georgia Power
 2480 Maner Road
 Atlanta GA, 30339

Attention: Mr. Joju Abraham

March 08, 2017

Report No.: AAB0913

Project: CCR Event

Client ID: YGWA-47

Lab Number ID: AAB0913-01

Date/Time Sampled: 2/24/2017 12:00:00PM

Date/Time Received: 2/27/2017 3:15:00PM

Matrix: Ground Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	162	25	10	mg/L	SM 2540 C		1	03/01/17 11:45	03/01/17 11:45	7030016	JPT
Inorganic Anions											
Chloride	5.5	0.25	0.01	mg/L	EPA 300.0		1	03/05/17 16:25	03/06/17 09:08	7030132	RLC
Fluoride	0.05	0.30	0.004	mg/L	EPA 300.0	J	1	03/05/17 16:25	03/06/17 09:08	7030132	RLC
Sulfate	120	10	0.92	mg/L	EPA 300.0		10	03/05/17 16:25	03/06/17 22:55	7030132	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 20:48	7020867	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 20:48	7020867	CSW
Barium	0.0351	0.0100	0.0004	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 20:48	7020867	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 20:48	7020867	CSW
Boron	0.0145	0.0400	0.0064	mg/L	EPA 6020B	J	1	03/01/17 09:10	03/03/17 20:48	7020867	CSW
Cadmium	0.00009	0.0010	0.00007	mg/L	EPA 6020B	J	1	03/01/17 09:10	03/03/17 20:48	7020867	CSW
Calcium	16.1	2.50	0.155	mg/L	EPA 6020B		5	03/01/17 09:10	03/06/17 19:07	7020867	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 20:48	7020867	CSW
Cobalt	0.0106	0.0100	0.0005	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 20:48	7020867	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 20:48	7020867	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 20:48	7020867	CSW
Selenium	0.0011	0.0100	0.0010	mg/L	EPA 6020B	J	1	03/01/17 09:10	03/03/17 20:48	7020867	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 20:48	7020867	CSW
Lithium	0.0049	0.0500	0.0021	mg/L	EPA 6020B	J	1	03/01/17 09:10	03/03/17 20:48	7020867	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	03/01/17 10:40	03/01/17 14:21	7020859	MTC



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Georgia Power
 2480 Maner Road
 Atlanta GA, 30339

Attention: Mr. Joju Abraham

March 08, 2017

Report No.: AAB0913

Project: CCR Event

Client ID: YGWC-43

Lab Number ID: AAB0913-02

Date/Time Sampled: 2/24/2017 2:10:00PM

Date/Time Received: 2/27/2017 3:15:00PM

Matrix: Ground Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	147	25	10	mg/L	SM 2540 C		1	03/01/17 11:45	03/01/17 11:45	7030016	JPT
Inorganic Anions											
Chloride	1.5	0.25	0.01	mg/L	EPA 300.0		1	03/05/17 16:25	03/06/17 10:10	7030132	RLC
Fluoride	0.21	0.30	0.004	mg/L	EPA 300.0	J	1	03/05/17 16:25	03/06/17 10:10	7030132	RLC
Sulfate	89	10	0.92	mg/L	EPA 300.0		10	03/05/17 16:25	03/06/17 23:16	7030132	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 21:11	7020867	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 21:11	7020867	CSW
Barium	0.0144	0.0100	0.0004	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 21:11	7020867	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 21:11	7020867	CSW
Boron	0.725	0.0400	0.0064	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 21:11	7020867	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 21:11	7020867	CSW
Calcium	6.42	0.500	0.0311	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 21:11	7020867	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	03/01/17 09:10	03/06/17 18:59	7020867	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	03/01/17 09:10	03/06/17 18:59	7020867	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 21:11	7020867	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 21:11	7020867	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 21:11	7020867	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 21:11	7020867	CSW
Lithium	0.0104	0.0500	0.0021	mg/L	EPA 6020B	J	1	03/01/17 09:10	03/06/17 18:59	7020867	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	03/01/17 10:40	03/01/17 14:23	7020859	MTC



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Georgia Power
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 Atlanta GA, 30339

Attention: Mr. Joju Abraham

March 08, 2017

Report No.: AAB0913

Project: CCR Event

Client ID: YGWC-45

Lab Number ID: AAB0913-03

Date/Time Sampled: 2/27/2017 10:45:00AM

Date/Time Received: 2/27/2017 3:15:00PM

Matrix: Ground Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	346	25	10	mg/L	SM 2540 C		1	03/01/17 11:45	03/01/17 11:45	7030016	JPT
Inorganic Anions											
Chloride	5.0	0.25	0.01	mg/L	EPA 300.0		1	03/05/17 16:25	03/06/17 10:32	7030132	RLC
Fluoride	0.22	0.30	0.004	mg/L	EPA 300.0	J	1	03/05/17 16:25	03/06/17 10:32	7030132	RLC
Sulfate	190	10	0.92	mg/L	EPA 300.0		10	03/05/17 16:25	03/06/17 23:37	7030132	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 21:23	7020867	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 21:23	7020867	CSW
Barium	0.0834	0.0100	0.0004	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 21:23	7020867	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 21:23	7020867	CSW
Boron	0.321	0.0400	0.0064	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 21:23	7020867	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 21:23	7020867	CSW
Calcium	49.4	25.0	1.55	mg/L	EPA 6020B		50	03/01/17 09:10	03/03/17 21:28	7020867	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	03/01/17 09:10	03/06/17 19:12	7020867	CSW
Cobalt	0.0010	0.0100	0.0005	mg/L	EPA 6020B	J	1	03/01/17 09:10	03/06/17 19:12	7020867	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 21:23	7020867	CSW
Molybdenum	0.0018	0.0100	0.0017	mg/L	EPA 6020B	J	1	03/01/17 09:10	03/03/17 21:23	7020867	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 21:23	7020867	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 21:23	7020867	CSW
Lithium	0.0135	0.0500	0.0021	mg/L	EPA 6020B	J	1	03/01/17 09:10	03/06/17 19:12	7020867	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	03/01/17 10:40	03/01/17 14:26	7020859	MTC



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Georgia Power
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 Atlanta GA, 30339

Attention: Mr. Joju Abraham

March 08, 2017

Report No.: AAB0913

Project: CCR Event

Client ID: YGWC-42

Lab Number ID: AAB0913-04

Date/Time Sampled: 2/27/2017 10:50:00AM

Date/Time Received: 2/27/2017 3:15:00PM

Matrix: Ground Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	1640	25	10	mg/L	SM 2540 C		1	03/01/17 11:45	03/01/17 11:45	7030016	JPT
Inorganic Anions											
Chloride	4.7	0.25	0.01	mg/L	EPA 300.0		1	03/05/17 16:25	03/06/17 10:53	7030132	RLC
Fluoride	0.06	0.30	0.004	mg/L	EPA 300.0	J	1	03/05/17 16:25	03/06/17 10:53	7030132	RLC
Sulfate	940	100	9.2	mg/L	EPA 300.0		100	03/05/17 16:25	03/06/17 23:58	7030132	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 21:34	7020867	CSW
Arsenic	0.0020	0.0050	0.0016	mg/L	EPA 6020B	J	1	03/01/17 09:10	03/03/17 21:34	7020867	CSW
Barium	0.0573	0.0100	0.0004	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 21:34	7020867	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 21:34	7020867	CSW
Boron	17.9	2.00	0.321	mg/L	EPA 6020B		50	03/01/17 09:10	03/03/17 21:40	7020867	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 21:34	7020867	CSW
Calcium	139	25.0	1.55	mg/L	EPA 6020B		50	03/01/17 09:10	03/03/17 21:40	7020867	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	03/01/17 09:10	03/06/17 19:18	7020867	CSW
Cobalt	0.0021	0.0100	0.0005	mg/L	EPA 6020B	J	1	03/01/17 09:10	03/06/17 19:18	7020867	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 21:34	7020867	CSW
Molybdenum	0.0031	0.0100	0.0017	mg/L	EPA 6020B	J	1	03/01/17 09:10	03/03/17 21:34	7020867	CSW
Selenium	0.0316	0.0100	0.0010	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 21:34	7020867	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 21:34	7020867	CSW
Lithium	0.0208	0.0500	0.0021	mg/L	EPA 6020B	J	1	03/01/17 09:10	03/06/17 19:18	7020867	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	03/01/17 10:40	03/01/17 14:28	7020859	MTC



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 Atlanta GA, 30339

Attention: Mr. Joju Abraham

March 08, 2017

Report No.: AAB0913

Project: CCR Event

Client ID: YGWC-46

Lab Number ID: AAB0913-05

Date/Time Sampled: 2/27/2017 12:20:00PM

Date/Time Received: 2/27/2017 3:15:00PM

Matrix: Ground Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	1060	25	10	mg/L	SM 2540 C		1	03/01/17 11:45	03/01/17 11:45	7030016	JPT
Inorganic Anions											
Chloride	33	0.25	0.01	mg/L	EPA 300.0		1	03/05/17 16:25	03/06/17 11:35	7030132	RLC
Fluoride	0.05	0.30	0.004	mg/L	EPA 300.0	J	1	03/05/17 16:25	03/06/17 11:35	7030132	RLC
Sulfate	650	100	9.2	mg/L	EPA 300.0		100	03/05/17 16:25	03/07/17 00:20	7030132	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 21:46	7020867	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 21:46	7020867	CSW
Barium	0.0326	0.0100	0.0004	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 21:46	7020867	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 21:46	7020867	CSW
Boron	1.29	0.0400	0.0064	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 21:46	7020867	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 21:46	7020867	CSW
Calcium	104	25.0	1.55	mg/L	EPA 6020B		50	03/01/17 09:10	03/03/17 21:51	7020867	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	03/01/17 09:10	03/06/17 19:24	7020867	CSW
Cobalt	0.0161	0.0100	0.0005	mg/L	EPA 6020B		1	03/01/17 09:10	03/06/17 19:24	7020867	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 21:46	7020867	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 21:46	7020867	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 21:46	7020867	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 21:46	7020867	CSW
Lithium	0.0084	0.0500	0.0021	mg/L	EPA 6020B	J	1	03/01/17 09:10	03/06/17 19:24	7020867	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	03/01/17 10:40	03/01/17 14:35	7020859	MTC



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Georgia Power
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 Atlanta GA, 30339

Attention: Mr. Joju Abraham

March 08, 2017

Report No.: AAB0913
 Client ID: EB-1-2-27-17

Project: CCR Event
 Lab Number ID: AAB0913-06

Date/Time Sampled: 2/27/2017 11:40:00AM

Date/Time Received: 2/27/2017 3:15:00PM

Matrix: Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	ND	25	10	mg/L	SM 2540 C		1	03/01/17 11:45	03/01/17 11:45	7030016	JPT
Inorganic Anions											
Chloride	ND	0.25	0.01	mg/L	EPA 300.0		1	03/05/17 16:25	03/06/17 11:56	7030132	RLC
Fluoride	0.04	0.30	0.004	mg/L	EPA 300.0	J	1	03/05/17 16:25	03/06/17 11:56	7030132	RLC
Sulfate	0.23	1.0	0.09	mg/L	EPA 300.0	J	1	03/05/17 16:25	03/06/17 11:56	7030132	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 21:57	7020867	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 21:57	7020867	CSW
Barium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 21:57	7020867	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 21:57	7020867	CSW
Boron	0.0071	0.0400	0.0064	mg/L	EPA 6020B	J	1	03/01/17 09:10	03/03/17 21:57	7020867	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 21:57	7020867	CSW
Calcium	0.0471	0.500	0.0311	mg/L	EPA 6020B	J	1	03/01/17 09:10	03/03/17 21:57	7020867	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	03/01/17 09:10	03/06/17 19:30	7020867	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	03/01/17 09:10	03/06/17 19:30	7020867	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 21:57	7020867	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 21:57	7020867	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 21:57	7020867	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 21:57	7020867	CSW
Lithium	ND	0.0500	0.0021	mg/L	EPA 6020B		1	03/01/17 09:10	03/06/17 19:30	7020867	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	03/01/17 10:40	03/01/17 14:38	7020859	MTC



PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
 110 Technology Parkway, Peachtree Corners, GA 30092
 (770) 734-4200 FAX (770) 734-4201

Georgia Power
 2480 Maner Road
 Atlanta GA, 30339

Attention: Mr. Joju Abraham

March 08, 2017

Report No.: AAB0913

Project: CCR Event

Client ID: Dup-1

Lab Number ID: AAB0913-07

Date/Time Sampled: 2/27/2017 12:00:00AM

Date/Time Received: 2/27/2017 3:15:00PM

Matrix: Ground Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	1100	25	10	mg/L	SM 2540 C		1	03/01/17 11:45	03/01/17 11:45	7030016	JPT
Inorganic Anions											
Chloride	33	0.25	0.01	mg/L	EPA 300.0		1	03/05/17 16:25	03/06/17 12:18	7030132	RLC
Fluoride	0.04	0.30	0.004	mg/L	EPA 300.0	J	1	03/05/17 16:25	03/06/17 12:18	7030132	RLC
Sulfate	720	100	9.2	mg/L	EPA 300.0		100	03/05/17 16:25	03/07/17 00:41	7030132	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 22:03	7020867	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 22:03	7020867	CSW
Barium	0.0336	0.0100	0.0004	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 22:03	7020867	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 22:03	7020867	CSW
Boron	1.29	0.0400	0.0064	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 22:03	7020867	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 22:03	7020867	CSW
Calcium	105	25.0	1.55	mg/L	EPA 6020B		50	03/01/17 09:10	03/03/17 22:20	7020867	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	03/01/17 09:10	03/06/17 19:36	7020867	CSW
Cobalt	0.0157	0.0100	0.0005	mg/L	EPA 6020B		1	03/01/17 09:10	03/06/17 19:36	7020867	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 22:03	7020867	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 22:03	7020867	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 22:03	7020867	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	03/01/17 09:10	03/03/17 22:03	7020867	CSW
Lithium	0.0083	0.0500	0.0021	mg/L	EPA 6020B	J	1	03/01/17 09:10	03/06/17 19:36	7020867	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	03/01/17 10:40	03/01/17 14:40	7020859	MTC



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General Chemistry - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7030016 - SM 2540 C											
Blank (7030016-BLK1)						Prepared & Analyzed: 03/01/17					
Total Dissolved Solids	ND	25	10	mg/L							
LCS (7030016-BS1)						Prepared & Analyzed: 03/01/17					
Total Dissolved Solids	348	25	10	mg/L	400.00		87	84-108			
Duplicate (7030016-DUP1)			Source: AAB0887-03RE1			Prepared & Analyzed: 03/01/17					
Total Dissolved Solids	ND	25	10	mg/L		ND				10	



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Report No.: AAB0913

Inorganic Anions - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7030132 - EPA 300.0											
Blank (7030132-BLK1)						Prepared: 03/05/17 Analyzed: 03/06/17					
Chloride	ND	0.25	0.01	mg/L							
Fluoride	ND	0.30	0.004	mg/L							
Sulfate	ND	1.0	0.09	mg/L							
LCS (7030132-BS1)						Prepared: 03/05/17 Analyzed: 03/06/17					
Chloride	9.75	0.25	0.01	mg/L	10.010		97	90-110			
Fluoride	10.1	0.30	0.004	mg/L	10.020		101	90-110			
Sulfate	9.95	1.0	0.09	mg/L	10.020		99	90-110			
Matrix Spike (7030132-MS1)						Source: AAB0913-01 Prepared: 03/05/17 Analyzed: 03/06/17					
Chloride	15.1	0.25	0.01	mg/L	10.010	5.47	96	90-110			
Fluoride	10.6	0.30	0.004	mg/L	10.020	0.05	105	90-110			
Sulfate	105	1.0	0.09	mg/L	10.020	107	NR	90-110			QM-02
Matrix Spike (7030132-MS2)						Source: AAB0913-04 Prepared: 03/05/17 Analyzed: 03/06/17					
Chloride	14.3	0.25	0.01	mg/L	10.010	4.69	96	90-110			
Fluoride	10.7	0.30	0.004	mg/L	10.020	0.06	106	90-110			
Sulfate	399	1.0	0.09	mg/L	10.020	422	NR	90-110			QM-02
Matrix Spike Dup (7030132-MSD1)						Source: AAB0913-01 Prepared: 03/05/17 Analyzed: 03/06/17					
Chloride	15.1	0.25	0.01	mg/L	10.010	5.47	96	90-110	0.07	15	
Fluoride	10.6	0.30	0.004	mg/L	10.020	0.05	105	90-110	0.1	15	
Sulfate	105	1.0	0.09	mg/L	10.020	107	NR	90-110	0.04	15	QM-02



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Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7020859 - EPA 7470A											
Blank (7020859-BLK1) Prepared & Analyzed: 03/01/17											
Mercury	ND	0.00050	0.000041	mg/L							
LCS (7020859-BS1) Prepared & Analyzed: 03/01/17											
Mercury	0.00243	0.00050	0.000041	mg/L	2.5000E-3		97	80-120			
Matrix Spike (7020859-MS1) Source: AAB0889-02 Prepared & Analyzed: 03/01/17											
Mercury	0.00226	0.00050	0.000041	mg/L	2.5000E-3	ND	90	75-125			
Matrix Spike Dup (7020859-MSD1) Source: AAB0889-02 Prepared & Analyzed: 03/01/17											
Mercury	0.00226	0.00050	0.000041	mg/L	2.5000E-3	ND	91	75-125	0.4	20	
Post Spike (7020859-PS1) Source: AAB0889-02 Prepared & Analyzed: 03/01/17											
Mercury	1.60			ug/L	1.6667	0.0123	95	80-120			
Batch 7020867 - EPA 3005A											
Blank (7020867-BLK1) Prepared: 03/01/17 Analyzed: 03/03/17											
Antimony	ND	0.0030	0.0008	mg/L							
Arsenic	ND	0.0050	0.0016	mg/L							
Barium	ND	0.0100	0.0004	mg/L							
Beryllium	ND	0.0030	0.00008	mg/L							
Boron	ND	0.0400	0.0064	mg/L							
Cadmium	ND	0.0010	0.00007	mg/L							
Calcium	ND	0.500	0.0311	mg/L							
Chromium	ND	0.0100	0.0009	mg/L							
Cobalt	ND	0.0100	0.0005	mg/L							
Copper	ND	0.0250	0.0005	mg/L							
Lead	ND	0.0050	0.0001	mg/L							
Molybdenum	ND	0.0100	0.0017	mg/L							
Nickel	ND	0.0100	0.0006	mg/L							
Selenium	ND	0.0100	0.0010	mg/L							
Silver	ND	0.0100	0.0005	mg/L							
Thallium	ND	0.0010	0.0002	mg/L							
Vanadium	ND	0.0100	0.0071	mg/L							
Zinc	ND	0.0100	0.0021	mg/L							
Lithium	ND	0.0500	0.0021	mg/L							



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Report No.: AAB0913

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7020867 - EPA 3005A											
LCS (7020867-BS1)						Prepared: 03/01/17 Analyzed: 03/03/17					
Antimony	0.112	0.0030	0.0008	mg/L	0.10000		112	80-120			
Arsenic	0.105	0.0050	0.0016	mg/L	0.10000		105	80-120			
Barium	0.107	0.0100	0.0004	mg/L	0.10000		107	80-120			
Beryllium	0.0972	0.0030	0.00008	mg/L	0.10000		97	80-120			
Boron	1.00	0.0400	0.0064	mg/L	1.0000		100	80-120			
Cadmium	0.105	0.0010	0.00007	mg/L	0.10000		105	80-120			
Calcium	1.00	0.500	0.0311	mg/L	1.0000		100	80-120			
Chromium	0.0948	0.0100	0.0009	mg/L	0.10000		95	80-120			
Cobalt	0.0949	0.0100	0.0005	mg/L	0.10000		95	80-120			
Copper	0.0948	0.0250	0.0005	mg/L	0.10000		95	80-120			
Lead	0.105	0.0050	0.0001	mg/L	0.10000		105	80-120			
Molybdenum	0.104	0.0100	0.0017	mg/L	0.10000		104	80-120			
Nickel	0.0946	0.0100	0.0006	mg/L	0.10000		95	80-120			
Selenium	0.109	0.0100	0.0010	mg/L	0.10000		109	80-120			
Silver	0.106	0.0100	0.0005	mg/L	0.10000		106	80-120			
Thallium	0.104	0.0010	0.0002	mg/L	0.10000		104	80-120			
Vanadium	0.0975	0.0100	0.0071	mg/L	0.10000		98	80-120			
Zinc	0.0982	0.0100	0.0021	mg/L	0.10000		98	80-120			
Lithium	0.0924	0.0500	0.0021	mg/L	0.10000		92	80-120			
Matrix Spike (7020867-MS1)						Source: AAB0887-02 Prepared: 03/01/17 Analyzed: 03/03/17					
Antimony	0.111	0.0030	0.0008	mg/L	0.10000	ND	111	75-125			
Arsenic	0.106	0.0050	0.0016	mg/L	0.10000	ND	106	75-125			
Barium	0.155	0.0100	0.0004	mg/L	0.10000	0.0481	107	75-125			
Beryllium	0.101	0.0030	0.00008	mg/L	0.10000	ND	101	75-125			
Boron	1.01	0.0400	0.0064	mg/L	1.0000	0.0192	99	75-125			
Cadmium	0.102	0.0010	0.00007	mg/L	0.10000	ND	102	75-125			
Calcium	17.1	2.50	0.155	mg/L	1.0000	16.2	91	75-125			
Chromium	0.0999	0.0100	0.0009	mg/L	0.10000	ND	100	75-125			
Cobalt	0.116	0.0100	0.0005	mg/L	0.10000	0.0184	98	75-125			
Copper	0.0938	0.0250	0.0005	mg/L	0.10000	ND	94	75-125			
Lead	0.104	0.0050	0.0001	mg/L	0.10000	ND	104	75-125			
Molybdenum	0.103	0.0100	0.0017	mg/L	0.10000	ND	103	75-125			
Nickel	0.0983	0.0100	0.0006	mg/L	0.10000	0.0009	97	75-125			
Selenium	0.111	0.0100	0.0010	mg/L	0.10000	0.0015	109	75-125			
Silver	0.102	0.0100	0.0005	mg/L	0.10000	ND	102	75-125			
Thallium	0.104	0.0010	0.0002	mg/L	0.10000	ND	104	75-125			
Vanadium	0.103	0.0100	0.0071	mg/L	0.10000	ND	103	75-125			
Zinc	0.100	0.0100	0.0021	mg/L	0.10000	0.0024	98	75-125			
Lithium	0.0908	0.0500	0.0021	mg/L	0.10000	0.0036	87	75-125			



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 Atlanta GA, 30339

Attention: Mr. Joju Abraham

March 08, 2017

Report No.: AAB0913

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7020867 - EPA 3005A											
Matrix Spike Dup (7020867-MSD1)			Source: AAB0887-02			Prepared: 03/01/17 Analyzed: 03/03/17					
Antimony	0.109	0.0030	0.0008	mg/L	0.10000	ND	109	75-125	2	20	
Arsenic	0.103	0.0050	0.0016	mg/L	0.10000	ND	103	75-125	3	20	
Barium	0.152	0.0100	0.0004	mg/L	0.10000	0.0481	104	75-125	2	20	
Beryllium	0.0985	0.0030	0.00008	mg/L	0.10000	ND	99	75-125	3	20	
Boron	0.956	0.0400	0.0064	mg/L	1.0000	0.0192	94	75-125	6	20	
Cadmium	0.103	0.0010	0.00007	mg/L	0.10000	ND	103	75-125	0.4	20	
Calcium	16.6	2.50	0.155	mg/L	1.0000	16.2	43	75-125	3	20	QM-02
Chromium	0.101	0.0100	0.0009	mg/L	0.10000	ND	101	75-125	1	20	
Cobalt	0.118	0.0100	0.0005	mg/L	0.10000	0.0184	99	75-125	1	20	
Copper	0.0995	0.0250	0.0005	mg/L	0.10000	ND	100	75-125	6	20	
Lead	0.104	0.0050	0.0001	mg/L	0.10000	ND	104	75-125	0.4	20	
Molybdenum	0.103	0.0100	0.0017	mg/L	0.10000	ND	103	75-125	0.7	20	
Nickel	0.100	0.0100	0.0006	mg/L	0.10000	0.0009	100	75-125	2	20	
Selenium	0.108	0.0100	0.0010	mg/L	0.10000	0.0015	107	75-125	2	20	
Silver	0.102	0.0100	0.0005	mg/L	0.10000	ND	102	75-125	0.09	20	
Thallium	0.103	0.0010	0.0002	mg/L	0.10000	ND	103	75-125	0.9	20	
Vanadium	0.103	0.0100	0.0071	mg/L	0.10000	ND	103	75-125	0.1	20	
Zinc	0.103	0.0100	0.0021	mg/L	0.10000	0.0024	100	75-125	3	20	
Lithium	0.0973	0.0500	0.0021	mg/L	0.10000	0.0036	94	75-125	7	20	
Post Spike (7020867-PS1)											
Source: AAB0887-02			Prepared: 03/01/17 Analyzed: 03/03/17								
Antimony	104			ug/L	100.00	0.275	104	80-120			
Arsenic	103			ug/L	100.00	0.126	103	80-120			
Barium	156			ug/L	100.00	48.1	108	80-120			
Beryllium	98.8			ug/L	100.00	0.0636	99	80-120			
Boron	983			ug/L	1000.0	19.2	96	80-120			
Cadmium	101			ug/L	100.00	0.0628	100	80-120			
Calcium	16500			ug/L	1000.0	16200	33	80-120			QM-02
Chromium	100			ug/L	100.00	0.425	100	80-120			
Cobalt	117			ug/L	100.00	18.4	98	80-120			
Copper	97.2			ug/L	100.00	0.447	97	80-120			
Lead	103			ug/L	100.00	0.0773	103	80-120			
Molybdenum	105			ug/L	100.00	0.148	105	80-120			
Nickel	96.2			ug/L	100.00	0.867	95	80-120			
Selenium	107			ug/L	100.00	1.45	106	80-120			
Silver	105			ug/L	100.00	0.0205	105	80-120			
Thallium	103			ug/L	100.00	0.0214	103	80-120			
Vanadium	102			ug/L	100.00	1.40	101	80-120			
Zinc	99.1			ug/L	100.00	2.39	97	80-120			
Lithium	101			ug/L	100.00	3.59	97	80-120			



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Atlanta GA, 30339

Attention: Mr. Joju Abraham

March 08, 2017

Legend

Definition of Laboratory Terms

- ND** - Not Detected at levels equal to or greater than the MDL
BRL - Not Detected at levels equal to or greater than the RL
RL - Reporting Limit **MDL** - Method Detection Limit
SOP - Method run per Pace Standard Operating Procedure
CFU - Colony Forming Units
DF - Dilution Factor **TIC** - Tentatively Identified Compound

Sample Information

N-Nitrosodiphenylamine breaks down to diphenylamine in the GCMS; both analytes are reported as N-Nitrosodiphenylamine. Pace is not NELAC certified for N-Nitrosodiphenylamine.

Phthalic acid and phthalic anhydride are reported as dimethyl phthalate

Maleic acid and maleic anhydride are reported as dimethyl malate

1,2-Diphenylhydrazine breaks down to azobenzene in the GCMS; both analytes are reported as azobenzene

Definition of Qualifiers

QM-02 The spike recovery is outside acceptance limits due to insignificant spike amount as compared to sample concentration.

J Estimated value less than Reporting Limit (RL) but greater than Method Detection Limit(MDL) (CLP J-Flag).

Note: Unless otherwise noted, all results are reported on an as received basis.



Pace Analytical Services, Inc.
 110 TECHNOLOGY PARKWAY, PEACHTREE CORNERS, GA 30092
 (770) 734-4200 : FAX (770) 734-4201 : www.asi-lab.com

CHAIN OF CUSTODY RECORD

CLIENT NAME:
 Georgia Power
 CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER:
 241 Ralph McGill Blvd SE B10185
 Atlanta, GA 30308
 404-506-7239

REPORT TO:
 Lauren Petty
 CC: Maria Padilla
 Health McCorkle
 PO #: laburch@southernmco.com

PROJECT NAME/STATE:
 Plant Yates AP
 Phase 2CCR

CONTAINER TYPE	ANALYSIS REQUESTED			CONTAINER NUMBER	PRESERVATION
	P	P	P		
3	7	3		1	1 - HCl, ≤6°C
				2	2 - H ₂ SO ₄ , ≤6°C
				3	3 - HNO ₃
				4	4 - NaOH, ≤6°C
				5	5 - NaOH/ZnAc, ≤6°C
				6	6 - Na ₂ S ₂ O ₃ , ≤6°C
				7	7 - ≤6°C not frozen

CONTAINER TYPE	ANALYSIS REQUESTED	CONTAINER NUMBER	PRESERVATION	REMARKS/ADDITIONAL INFORMATION
4	Metals App. III & IV (EPA 6020/7470)	1	1	DW - DRINKING WATER S - SOIL
4	Cl, F, SO ₄ & TDS (EPA 300.0 & SM 2540C)	2	2	MW - WASTEWATER SL - SLUDGE
4	Radium 226 & 228 (SW-846 9315/9320)	3	2	GW - GROUNDWATER SD - SOLID
4		4	2	SW - SURFACE WATER A - AIR
4		5	2	ST - STORM WATER L - LIQUID
4		6	2	W - WATER P - PRODUCT
4		7	2	

RELINQUISHED BY: [Signature] DATE/TIME: 2-27-17 1515

RELINQUISHED BY: [Signature] DATE/TIME: [Blank]

SAMPLE SHIPPED VIA: UPS FED-EX USPS COURIER OTHER FS

DATE/TIME: 2/27/17 1330

DATE/TIME: 2/27/17 1515

RECEIVED BY LAB: [Signature] DATE/TIME: 2/27/17 1515

RECEIVED BY: [Signature] DATE/TIME: 2/27/17 1515

LAB #: AA00913

Entered into LIS: [Signature]

Tracking #: [Blank]

Plant Yates COC Ash Ponds



PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
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(770) 734-4200 FAX (770) 734-4201

LOG-IN CHECKLIST

Printed: 2/28/2017 2:37:20PM

Attn: Mr. Joju Abraham

Client: Georgia Power

Project: CCR Event

Date Received: 02/27/17 15:15

Work Order: AAB0913

Logged In By: Mohammad M. Rahman

OBSERVATIONS

#Samples: 7

#Containers: 28

Minimum Temp(C): 4.0

Maximum Temp(C): 4.0

Custody Seal(s) Used: Yes

CHECKLIST ITEMS

COC included with Samples	YES
Sample Container(s) Intact	YES
Chain of Custody Complete	YES
Sample Container(s) Match COC	YES
Custody seal Intact	YES
Temperature in Compliance	YES
Sufficient Sample Volume for Analysis	YES
Zero Headspace Maintained for VOA Analyses	YES
Samples labeled preserved (If Applicable)	YES
Samples received within Allowable Hold Times	YES
Samples Received on Ice	YES
Preservation Confirmed	YES

Comments:

March 24, 2017

Maria Padilla
GA Power
2480 Maner Rd
Atlanta, GA 30339

RE: Project: AAB0913 Plant Yates
Pace Project No.: 30211992

Dear Maria Padilla:

Enclosed are the analytical results for sample(s) received by the laboratory on February 28, 2017. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

This report replaces the March 22, 2017 report. Report reissued March 24, 2017 to reflect correction of Client Sample ID's.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Jacquelyn Collins
jacquelyn.collins@pacelabs.com
(724)850-5612
Project Manager

Enclosures



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: AAB0913 Plant Yates
Pace Project No.: 30211992

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
L-A-B DOD-ELAP Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification
Connecticut Certification #: PH-0694
Delaware Certification
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: 90133
Louisiana DHH/TNI Certification #: LA140008
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: PA00091
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification
Missouri Certification #: 235

Montana Certification #: Cert 0082
Nebraska Certification #: NE-05-29-14
Nevada Certification #: PA014572015-1
New Hampshire/TNI Certification #: 2976
New Jersey/TNI Certification #: PA 051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Oregon/TNI Certification #: PA200002
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN2867
Texas/TNI Certification #: T104704188-14-8
Utah/TNI Certification #: PA014572015-5
USDA Soil Permit #: P330-14-00213
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Certification
Wyoming Certification #: 8TMS-L

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: AAB0913 Plant Yates

Pace Project No.: 30211992

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30211992001	YGWA-47	Water	02/24/17 12:00	02/28/17 09:40
30211992002	YGWC-43	Water	02/24/17 14:10	02/28/17 09:40
30211992003	YGWC-45	Water	02/27/17 10:45	02/28/17 09:40
30211992004	YGWC-42	Water	02/27/17 10:50	02/28/17 09:40
30211992005	YGWC-46	Water	02/27/17 12:20	02/28/17 09:40
30211992006	EB-1-2-27-17	Water	02/27/17 11:40	02/28/17 09:40
30211992007	Dup-1	Water	02/27/17 00:00	02/28/17 09:40

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: AAB0913 Plant Yates
Pace Project No.: 30211992

Lab ID	Sample ID	Method	Analysts	Analytes Reported
30211992001	YGWA-47	EPA 9315	LAL	1
		EPA 9320	JJY	1
		Total Radium Calculation	RMK	1
30211992002	YGWC-43	EPA 9315	LAL	1
		EPA 9320	JJY	1
		Total Radium Calculation	RMK	1
30211992003	YGWC-45	EPA 9315	LAL	1
		EPA 9320	JJY	1
		Total Radium Calculation	RMK	1
30211992004	YGWC-42	EPA 9315	LAL	1
		EPA 9320	JJY	1
		Total Radium Calculation	RMK	1
30211992005	YGWC-46	EPA 9315	LAL	1
		EPA 9320	JJY	1
		Total Radium Calculation	RMK	1
30211992006	EB-1-2-27-17	EPA 9315	LAL	1
		EPA 9320	JJY	1
		Total Radium Calculation	RMK	1
30211992007	Dup-1	EPA 9315	LAL	1
		EPA 9320	JJY	1
		Total Radium Calculation	RMK	1

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AAB0913 Plant Yates
Pace Project No.: 30211992

Parameters		Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226		EPA 9315	0.263 ± 0.143 (0.188) C:94% T:NA	pCi/L	03/20/17 08:36	13982-63-3	
Radium-228		EPA 9320	0.241 ± 0.402 (0.875) C:62% T:94%	pCi/L	03/18/17 15:45	15262-20-1	
Total Radium		Total Radium Calculation	0.504 ± 0.545 (1.06)	pCi/L	03/22/17 12:01	7440-14-4	

Parameters		Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226		EPA 9315	0.237 ± 0.139 (0.205) C:96% T:NA	pCi/L	03/20/17 08:36	13982-63-3	
Radium-228		EPA 9320	0.424 ± 0.407 (0.835) C:75% T:84%	pCi/L	03/18/17 15:45	15262-20-1	
Total Radium		Total Radium Calculation	0.661 ± 0.546 (1.04)	pCi/L	03/22/17 12:01	7440-14-4	

Parameters		Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226		EPA 9315	0.505 ± 0.216 (0.289) C:96% T:NA	pCi/L	03/20/17 08:37	13982-63-3	
Radium-228		EPA 9320	0.0230 ± 0.356 (0.827) C:69% T:87%	pCi/L	03/18/17 15:45	15262-20-1	
Total Radium		Total Radium Calculation	0.528 ± 0.572 (1.12)	pCi/L	03/22/17 12:01	7440-14-4	

Parameters		Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226		EPA 9315	1.79 ± 0.428 (0.280) C:94% T:NA	pCi/L	03/20/17 08:37	13982-63-3	
Radium-228		EPA 9320	0.712 ± 0.356 (0.604) C:89% T:84%	pCi/L	03/18/17 15:45	15262-20-1	
Total Radium		Total Radium Calculation	2.50 ± 0.784 (0.884)	pCi/L	03/22/17 12:01	7440-14-4	

Parameters		Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226		EPA 9315	0.297 ± 0.146 (0.163) C:96% T:NA	pCi/L	03/20/17 10:26	13982-63-3	
Radium-228		EPA 9320	0.320 ± 0.403 (0.858) C:87% T:82%	pCi/L	03/18/17 15:46	15262-20-1	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AAB0913 Plant Yates

Pace Project No.: 30211992

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Sample: YGWC-46 Lab ID: 30211992005 Collected: 02/27/17 12:20 Received: 02/28/17 09:40 Matrix: Water PWS: Site ID: Sample Type:						
Total Radium	Total Radium Calculation	0.617 ± 0.549 (1.02)	pCi/L	03/22/17 12:01	7440-14-4	

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Sample: EB-1-2-27-17 Lab ID: 30211992006 Collected: 02/27/17 11:40 Received: 02/28/17 09:40 Matrix: Water PWS: Site ID: Sample Type:						
Radium-226	EPA 9315	0.00886 ± 0.0781 (0.209) C:95% T:NA	pCi/L	03/20/17 10:26	13982-63-3	
Radium-228	EPA 9320	0.596 ± 0.429 (0.828) C:69% T:85%	pCi/L	03/18/17 15:46	15262-20-1	
Total Radium	Total Radium Calculation	0.605 ± 0.507 (1.04)	pCi/L	03/22/17 12:01	7440-14-4	

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Sample: Dup-1 Lab ID: 30211992007 Collected: 02/27/17 00:00 Received: 02/28/17 09:40 Matrix: Water PWS: Site ID: Sample Type:						
Radium-226	EPA 9315	0.392 ± 0.168 (0.177) C:97% T:NA	pCi/L	03/20/17 10:26	13982-63-3	
Radium-228	EPA 9320	0.480 ± 0.475 (0.979) C:68% T:81%	pCi/L	03/18/17 15:46	15262-20-1	
Total Radium	Total Radium Calculation	0.872 ± 0.643 (1.16)	pCi/L	03/22/17 12:01	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: AAB0913 Plant Yates

Pace Project No.: 30211992

QC Batch:	251731	Analysis Method:	EPA 9315
QC Batch Method:	EPA 9315	Analysis Description:	9315 Total Radium
Associated Lab Samples:	30211992001, 30211992002, 30211992003, 30211992004, 30211992005, 30211992006, 30211992007		

METHOD BLANK:	1238369	Matrix:	Water
Associated Lab Samples:	30211992001, 30211992002, 30211992003, 30211992004, 30211992005, 30211992006, 30211992007		

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	-0.00178 ± 0.0626 (0.181) C:99% T:NA	pCi/L	03/20/17 08:36	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: AAB0913 Plant Yates

Pace Project No.: 30211992

QC Batch:	251828	Analysis Method:	EPA 9320
QC Batch Method:	EPA 9320	Analysis Description:	9320 Radium 228
Associated Lab Samples:	30211992001, 30211992002, 30211992003, 30211992004, 30211992005, 30211992006, 30211992007		

METHOD BLANK:	1238974	Matrix:	Water
Associated Lab Samples:	30211992001, 30211992002, 30211992003, 30211992004, 30211992005, 30211992006, 30211992007		

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	-0.0635 ± 0.343 (0.815) C:78% T:91%	pCi/L	03/18/17 15:44	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: AAB0913 Plant Yates

Pace Project No.: 30211992

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval).

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

REPORT OF LABORATORY ANALYSIS

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30211992

Chain of Custody



Results Requested By: 3/22/2017

Owner Received Date:

Workorder Name: Plant Yates

Workorder: AAB0913

Report To:		Subcontract To:		Requested Analysis				
Betsy McDaniel		Pace - Pittsburgh		Radium 226, 228, Total				
Pace Analytical Atlanta		1638 Roseytown Road						
110 Technology Parkway		Stes. 2,3,4						
Peachtree Corners, GA 30092		Greensburg, PA 15601						
Phone (770)-734-4200		Phone (724) 850-5600						
Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers	Date/Time	Comments
1	YGWA-47	G	2/24/2017 12:00	AAB0913-01	GW	2		
2	YGWC-43	G	2/24/2017 14:10	AAB0913-02	GW	2		
3	YGWC-45	G	2/27/2017 10:45	AAB0913-03	GW	2		
4	YGWC-42	G	2/27/2017 10:50	AAB0913-04	GW	2		
5	YGWC-46	G	2/27/2017 12:20	AAB0913-05	GW	2		
6	EB-1-2-27-17	G	2/27/2017 11:40	AAB0913-06	W	2		
7	Dup-1	G	2/27/2017 0:00	AAB0913-07	GW	2		
8								
9								
10								
Transfers	Released By	Date/Time	Received By	Date/Time	Comments			
1			Wahleby Pace	2-28-17 10:46				
2								
3								

WO#: 30211992

Cooler Temperature on Receipt N/A °C Custody Seal Y or (N) Received on Ice Y or (N) Sample Intact Y or N

***In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC

This chain of custody is considered complete as is since this information is available in the owner laboratory.

Sample Condition Upon Receipt Pittsburgh

ANL

30211992



Client Name: Pace, GA

Project # _____

Courier: Fed Ex UPS USPS Client Commercial Pace Other _____

Tracking #: 6812 5102 6382

Custody Seal on Cooler/Box Present: yes no Seals intact: yes no

Thermometer Used N/A Type of Ice: Wet Blue (None)

Cooler Temperature Observed Temp _____ °C Correction Factor: _____ °C Final Temp: _____ °C

Temp should be above freezing to 6°C

Date and Initials of person examining contents: ANL 2-28-17

Comments:	Yes	No	N/A	
Chain of Custody Present:	X			1.
Chain of Custody Filled Out:	X			2.
Chain of Custody Relinquished:	X			3.
Sampler Name & Signature on COC:	X			4.
Sample Labels match COC:	X			5.
-Includes date/time/ID Matrix: <u>WT</u>				
Samples Arrived within Hold Time:	X			6.
Short Hold Time Analysis (<72hr remaining):		X		7.
Rush Turn Around Time Requested:		X		8.
Sufficient Volume:	X			9.
Correct Containers Used:	X			10.
-Pace Containers Used:	X			
Containers Intact:	X			11.
Orthophosphate field filtered			X	12.
Organic Samples checked for dechlorination:			X	13.
Filtered volume received for Dissolved tests			X	14.
All containers have been checked for preservation.	X			15.
All containers needing preservation are found to be in compliance with EPA recommendation.	X			
exceptions: VOA, coliform, TOC, O&G, Phenolics				Initial when completed: <u>ANL</u> Date/time of preservation: _____
				Lot # of added preservative: _____
Headspace in VOA Vials (>6mm):			X	16.
Trip Blank Present:		X		17.
Trip Blank Custody Seals Present			X	
Rad Aqueous Samples Screened > 0.5 mrem/hr		X		Initial when completed: <u>ANL</u> Date: <u>2-28-17</u>

Client Notification/ Resolution:

Person Contacted: _____ Date/Time: _____ Contacted By: _____

Comments/ Resolution: _____

A check in this box indicates that additional information has been stored in ereports.

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

*PM review is documented electronically in LIMS. When the Project Manager closes the SRF Review schedule in LIMS. The review is in the Status section of the Workorder Edit Screen.

30211992

PAGE: / OF /



Pace Analytical Services, Inc.
110 TECHNOLOGY PARKWAY, PEACHTREE CORNERS, GA 30092
(770) 734-4200 : FAX (770) 734-4201 : www.asi-lab.com

CHAIN OF CUSTODY RECORD

CLIENT NAME: Georgia Power		CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER: 241 Ralph McGill Blvd SE B10185 Atlanta, GA 30308 404-508-7239		REPORT TO: Lauren Petty Heath McCorkle laburch@southernco.com		PROJECT NAME/STATE: Plant Yates AP Phase 2CCR		PROJECT #:	
Collection DATE MM-DD-YY	Collection TIME	MATRIX CODE*	GRA B	COMP	SAMPLE IDENTIFICATION	CONTAINER TYPE: PRESERVATION: # of	ANALYSIS REQUESTED P P P P 3 7 3	RELINQUISHED BY: DATE/TIME	RELINQUISHED BY: DATE/TIME
2-24-17	1200	GW	✓		Y6WA-47	(EPA 6020/7470) Metals App. III & IV CI, F, SO ₄ & TDS (EPA 300.0 & SM 2540C) Radium 226 & 228 (GW-846 9315/9320)		RELINQUISHED BY: <i>[Signature]</i> DATE/TIME: 2-27-17 1515	RELINQUISHED BY: <i>[Signature]</i> DATE/TIME: 2-27-17 1515
2-24-17	1410	GW	✓		Y6WC-43				
2-27-17	1045	GW	✓		Y6WC-45				
2-27-17	1050	GW	✓		Y6WC-42				
2-27-17	1220	GW	✓		Y6WC-46				
2-27-17	1140	W	✓		EB-1-2-27-17				
2-27-17	—	GW	✓		DUP-1				
SAMPLED BY AND TITLE: <i>[Signature]</i>		DATE/TIME: 2-27-17 1530		DATE/TIME: 2-27-17 1515		RECEIVED BY LAB: <i>[Signature]</i>		DATE/TIME: 2-27-17 1515	
RECEIVED BY:		DATE/TIME:		DATE/TIME:		TEMPERATURE: i/c		TEMPERATURE: i/c	
RECEIVED BY LAB: <i>[Signature]</i>		DATE/TIME: 2-27-17 1515		DATE/TIME: 2-27-17 1515		TEMPERATURE: i/c		TEMPERATURE: i/c	

L A B I D N U M B E R	CONTAINER TYPE	PRESERVATION
1	P - PLASTIC	1 - HCl, ≤6°C
2	A - AMBER GLASS	2 - H ₂ SO ₄ , ≤6°C
3	G - CLEAR GLASS	3 - HNO ₃
4	V - VOA VIAL	4 - NaOH, ≤6°C
5	S - STERILE	5 - NaOH/ZnAc, ≤6°C
6	O - OTHER	6 - Na ₂ S ₂ O ₃ , ≤6°C
7		7 - ≤6°C not frozen

MATRIX CODES:	REMARKS/ADDITIONAL INFORMATION
DW - DRINKING WATER	S - SOIL
MW - WASTEWATER	SL - SLUDGE
GW - GROUNDWATER	SD - SOLID
SW - SURFACE WATER	A - AIR
ST - STORM WATER	L - LIQUID
W - WATER	P - PRODUCT

LAB #:
Entered into LIMS:
Tracking #:
FOR LAB USE ONLY
[Signature]

Plant Yates COC Ash Ponds

Quality Control Sample Performance Assessment



Test: Ra-228
Analyst: JJY
Date: 3/13/2017
Worklist: 34513
Matrix: DW

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment

MB Sample ID: 1238974
MB concentration: -0.064
MB Counting Uncertainty: 0.343
MB MDC: 0.815
MB Numerical Performance Indicator: -0.36
MB Status vs Numerical Indicator: N/A
MB Status vs MDC: N Pass

Laboratory Control Sample Assessment

Count Date:	LCS(Y or N)?
3/18/2017	LCS34513
17-005	3/18/2017
Spike Concentration (pCi/mL): 25.008	17-005
Volume Used (mL): 0.20	25.008
Aliquot Volume (L, g, F): 0.807	0.20
Target Conc. (pCi/L, g, F): 6.198	0.806
Uncertainty (Calculated): 0.446	6.204
Result (pCi/L, g, F): 4.807	0.447
LCS/LCSD Counting Uncertainty (pCi/L, g, F): 0.605	3.854
Numerical Performance Indicator: -3.63	0.565
Percent Recovery: 77.55%	62.13%
Status vs Numerical Indicator: N/A	N/A
Status vs Recovery: Pass	Pass

Duplicate Sample Assessment

Sample I.D.:	Duplicate Sample I.D.:
LCS34513	LCS34513
Duplicate Result (pCi/L, g, F): 4.807	LCS34513
Sample Result Counting Uncertainty (pCi/L, g, F): 0.605	4.807
Sample Duplicate Result (pCi/L, g, F): 3.854	0.605
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F): 0.565	3.854
Are sample and/or duplicate results below MDC? NO	0.565
Duplicate Numerical Performance Indicator: 2.255	NO
Duplicate Percent Recoveries) Duplicate RPD: 22.08%	2.255
Duplicate Status vs Numerical Indicator: N/A	22.08%
Duplicate Status vs RPD: Pass	N/A
	Pass

Sample Matrix Spike Control Assessment

Sample Collection Date:
Sample I.D.:
Sample MS I.D.:
Sample MSD I.D.:
Spike I.D.:

MS/MSD Decay Corrected Spike Concentration (pCi/mL):
Spike Volume Used in MS (mL):
MS Aliquot (L, g, F):
MS Target Conc. (pCi/L, g, F):
MSD Aliquot (L, g, F):
MSD Target Conc. (pCi/L, g, F):
Spike uncertainty (calculated):

Sample Result Counting Uncertainty (pCi/L, g, F):
Sample Matrix Spike Result:
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):
Sample Matrix Spike Duplicate Result:
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):
MS Numerical Performance Indicator:
MSD Numerical Performance Indicator:

MS Status vs Numerical Indicator:
MSD Status vs Numerical Indicator:
MS Status vs Recovery:
MSD Status vs Recovery:

Matrix Spike/Matrix Spike Duplicate Sample Assessment

Sample I.D.:
Sample MS I.D.:
Sample MSD I.D.:

Sample Matrix Spike Result:
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):
Sample Matrix Spike Duplicate Result:
Duplicate Numerical Performance Indicator:
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):
Duplicate Numerical Performance Indicator:
(Based on the Percent Recoveries) MS/MSD Duplicate RPD:
MS/MSD Duplicate Status vs Numerical Indicator:
MS/MSD Duplicate Status vs RPD:

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

OP 3/22/17

Quality Control Sample Performance Assessment



Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-226
Analyst: LAL
Date: 3/16/2017
Worklist: 34495
Matrix: DW

Method Blank Assessment

MB Sample ID: 1238369
MB concentration: -0.002
M/B Counting Uncertainty: 0.065
MB MDC: 0.181
MB Numerical Performance Indicator: -0.06
MB Status vs Numerical Indicator: N/A
MB Status vs MDC: Pass

Laboratory Control Sample Assessment

LCSD (Y or N)? N
LCS34495
LCS34495
Count Date: 3/20/2017

Spike I.D.: 17-003
Spike Concentration (pCi/mL): 38.230
Volume Used (mL): 0.25
Aliquot Volume (L, g, F): 0.501
Target Conc. (pCi/L, g, F): 19.086
Uncertainty (Calculated): 0.898
Result (pCi/L, g, F): 16.203
LCS/LCSD Counting Uncertainty (pCi/L, g, F): 0.951
Numerical Performance Indicator: -4.30
Percent Recovery: 84.90%

Status vs Numerical Indicator: N/A
Status vs Recovery: Pass

Duplicate Sample Assessment

Sample I.D.: 30211899003
Duplicate Sample I.D.: 30211899003DUP

Sample Result (pCi/L, g, F): 0.098
Sample Result Counting Uncertainty (pCi/L, g, F): 0.119
Sample Duplicate Result (pCi/L, g, F): 0.123
Sample Duplicate Counting Uncertainty (pCi/L, g, F): 0.106
Are sample and/or duplicate results below MDC? See Below ##
Duplicate Numerical Performance Indicator: -0.309
Duplicate RPD: 22.65%

Duplicate Status vs Numerical Indicator: N/A
Duplicate Status vs RPD: Pass

Sample Matrix Spike Control Assessment

Sample Collection Date:
Sample I.D.:
Sample MS I.D.:
Sample MSD I.D.:
Spike I.D.:

MS/MSD Decay Corrected Spike Concentration (pCi/mL):
Spike Volume Used in MS (mL):
Spike Volume Used in MSD (mL):
MS Aliquot (L, g, F):
MS Target Conc. (pCi/L, g, F):
MSD Aliquot (L, g, F):
MSD Target Conc. (pCi/L, g, F):
Spike uncertainty (calculated):

Sample Result:
Sample Result Counting Uncertainty (pCi/L, g, F):
Sample Matrix Spike Result:
Sample Matrix Spike Counting Uncertainty (pCi/L, g, F):
Sample Matrix Spike Duplicate Result:
Sample Matrix Spike Duplicate Counting Uncertainty (pCi/L, g, F):
MS Numerical Performance Indicator:
MSD Numerical Performance Indicator:
MS Percent Recovery:
MSD Percent Recovery:
MS Status vs Numerical Indicator:
MSD Status vs Numerical Indicator:
MS Status vs Recovery:
MSD Status vs Recovery:

Matrix Spike/Matrix Spike Duplicate Sample Assessment

Sample I.D.:
Sample MS I.D.:
Sample MSD I.D.:

Sample Matrix Spike Result:
Sample Matrix Spike Counting Uncertainty (pCi/L, g, F):
Sample Matrix Spike Duplicate Result:
Sample Matrix Spike Duplicate Counting Uncertainty (pCi/L, g, F):
Duplicate Numerical Performance Indicator:
MS/MSD Duplicate RPD:
MS/MSD Duplicate Status vs Numerical Indicator:
MS/MSD Duplicate Status vs RPD:

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

[Handwritten signature]

Product Name: Low-Flow System

Date: 2017-05-10 12:07:43

Project Information:

Operator Name J Berisford
Company Name Atlantic Coast Consulting, Inc.
Project Name Plant Yates - Phase 2 CCR
Site Name Plant Yates - Phase 2
Latitude 33° 27' 11.22"
Longitude -84° -53' -55.29"
Sonde SN 466058
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type Bladder
Tubing Type Poly
Tubing Diameter .375 in
Tubing Length 60 ft

Pump placement from TOC 55 ft

Well Information:

Well ID YGWC-42
Well diameter 2 in
Well Total Depth 60 ft
Screen Length 10 ft
Depth to Water 27.87 ft

Pumping Information:

Final Pumping Rate 75 mL/min
Total System Volume 1.788119 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 38 in
Total Volume Pumped 5.2 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	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	11:45:02	2999.97	18.12	5.86	1450.24	15.40	31.00	0.29	52.55
Last 5	11:50:02	3299.97	18.91	5.85	1477.82	9.47	31.00	0.31	53.19
Last 5	11:55:02	3599.96	19.42	5.86	1508.97	7.95	31.00	0.35	53.73
Last 5	12:00:02	3899.96	19.42	5.83	1572.07	5.30	31.00	0.41	55.16
Last 5	12:05:02	4199.96	19.24	5.79	1632.46	4.68	31.00	0.49	57.02
Variance 0			0.51	0.00	31.14			0.04	0.54
Variance 1			0.01	-0.03	63.10			0.07	1.43
Variance 2			-0.19	-0.04	60.39			0.08	1.86

Notes

Sunny- sample time- 1205, EB-1 here

Grab Samples

Product Name: Low-Flow System

Date: 2017-05-10 10:16:49

Project Information:

Operator Name J Berisford
Company Name Atlantic Coast Consulting, Inc.
Project Name Plant Yates - Phase 2 CCR
Site Name Plant Yates - Phase 2
Latitude 33° 27' 18.03"
Longitude -84° -53' -56.75"
Sonde SN 466058
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type Bladder
Tubing Type Poly
Tubing Diameter .375 in
Tubing Length 80 ft

Pump placement from TOC 75 ft

Well Information:

Well ID YGWC-43
Well diameter 2 in
Well Total Depth 80 ft
Screen Length 10 ft
Depth to Water 14.34 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 2.222492 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 4 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	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	09:55:01	1500.00	17.81	6.42	328.85	8.79	14.60	0.07	8.67
Last 5	10:00:01	1800.00	17.86	6.44	329.98	6.50	14.60	0.08	2.81
Last 5	10:05:01	2099.99	17.95	6.46	330.69	5.34	14.60	0.10	-3.18
Last 5	10:10:01	2399.99	18.13	6.48	329.90	5.03	14.60	0.12	-8.59
Last 5	10:15:01	2699.98	18.32	6.50	329.67	3.96	14.60	0.12	-13.82
Variance 0			0.09	0.02	0.71			0.02	-5.99
Variance 1			0.18	0.02	-0.79			0.01	-5.41
Variance 2			0.20	0.02	-0.23			0.01	-5.24

Notes

Sunny, sample time - 1015

Grab Samples



PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Laboratory Report

Prepared For:

**Georgia Power
2480 Maner Road
Atlanta, GA 30339**

Attention: Mr. Joju Abraham

Report Number: AAE0387

May 22, 2017

Project: CCR Event

Project #: Plant Yates

We appreciate the opportunity to provide the analytical support for your project. The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Approved:

A handwritten signature in black ink that reads "Betsy McDaniel" written over a horizontal line.

Project Manager

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All test results relate only to the samples analyzed.



PACE ANALYTICAL SERVICES, LLC.

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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

May 22, 2017

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
YGWA-47	AAE0387-01	Ground Water	05/08/17 12:00	05/11/17 09:50
YGWC-44	AAE0387-02	Ground Water	05/08/17 13:35	05/11/17 09:50
YGWC-46	AAE0387-03	Ground Water	05/08/17 15:05	05/11/17 09:50
YGWC-36	AAE0387-04	Ground Water	05/09/17 11:55	05/11/17 09:50
YGWC-49	AAE0387-05	Ground Water	05/09/17 13:20	05/11/17 09:50
YGWC-45	AAE0387-06	Ground Water	05/09/17 15:25	05/11/17 09:50
Dup-1	AAE0387-07	Ground Water	05/09/17 00:00	05/11/17 09:50
YGWC-42	AAE0387-08	Ground Water	05/10/17 12:05	05/11/17 09:50
YGWC-43	AAE0387-09	Ground Water	05/10/17 10:15	05/11/17 09:50
EB-1-5-10-17	AAE0387-10	Water	05/10/17 11:50	05/11/17 09:50
FB-1-5-9-17	AAE0387-11	Water	05/09/17 10:25	05/11/17 09:50



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Atlanta GA, 30339

Attention: Mr. Joju Abraham

May 22, 2017

Case Narrative

The Radium analysis by methods EPA 9315/9320 was performed by Pace-Pittsburgh, 1638 Roseytown Road - Suites 2, 3, 4, Greensburg PA 15601. The Pace-Pittsburgh lab contact is Jacquelyn Collins at 724-850-5612.



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Georgia Power
 2480 Maner Road
 Atlanta GA, 30339

May 22, 2017

Attention: Mr. Joju Abraham

Report No.: AAE0387

Project: CCR Event

Client ID: YGWA-47

Lab Number ID: AAE0387-01

Date/Time Sampled: 5/8/2017 12:00:00PM

Date/Time Received: 5/11/2017 9:50:00AM

Matrix: Ground Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	194	25	10	mg/L	SM 2540 C		1	05/12/17 11:45	05/12/17 11:45	7050407	JPT
Inorganic Anions											
Chloride	5.8	0.25	0.01	mg/L	EPA 300.0		1	05/12/17 09:41	05/12/17 11:53	7050437	SLH
Fluoride	0.03	0.30	0.004	mg/L	EPA 300.0	J	1	05/12/17 09:41	05/12/17 11:53	7050437	SLH
Sulfate	120	10	0.92	mg/L	EPA 300.0		10	05/12/17 09:41	05/18/17 16:46	7050437	SLH
Metals, Total											
Antimony	0.0004	0.0030	0.0003	mg/L	EPA 6020B	B-01, J	1	05/15/17 09:00	05/17/17 17:24	7050474	CSW
Arsenic	ND	0.0050	0.0004	mg/L	EPA 6020B		1	05/15/17 09:00	05/17/17 17:24	7050474	CSW
Barium	0.0251	0.0100	0.0003	mg/L	EPA 6020B		1	05/15/17 09:00	05/17/17 17:24	7050474	CSW
Beryllium	0.00007	0.0030	0.00007	mg/L	EPA 6020B	J	1	05/15/17 09:00	05/17/17 17:24	7050474	CSW
Boron	0.0141	0.0400	0.0060	mg/L	EPA 6020B	J	1	05/15/17 09:00	05/17/17 17:24	7050474	CSW
Cadmium	0.0001	0.0010	0.00006	mg/L	EPA 6020B	J	1	05/15/17 09:00	05/17/17 17:24	7050474	CSW
Calcium	14.6	5.00	0.522	mg/L	EPA 6020B		50	05/15/17 09:00	05/17/17 17:30	7050474	CSW
Chromium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	05/15/17 09:00	05/17/17 17:24	7050474	CSW
Cobalt	0.0099	0.0100	0.0005	mg/L	EPA 6020B	J	1	05/15/17 09:00	05/17/17 17:24	7050474	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	05/15/17 09:00	05/17/17 17:24	7050474	CSW
Molybdenum	ND	0.0100	0.0006	mg/L	EPA 6020B		1	05/15/17 09:00	05/17/17 17:24	7050474	CSW
Selenium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	05/15/17 09:00	05/17/17 17:24	7050474	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	05/15/17 09:00	05/17/17 17:24	7050474	CSW
Lithium	0.0053	0.0500	0.0011	mg/L	EPA 6020B	J	1	05/15/17 09:00	05/17/17 17:24	7050474	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	05/15/17 10:15	05/15/17 15:20	7050418	MTC



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Georgia Power
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 Atlanta GA, 30339

May 22, 2017

Attention: Mr. Joju Abraham

Report No.: AAE0387

Project: CCR Event

Client ID: YGWC-44

Lab Number ID: AAE0387-02

Date/Time Sampled: 5/8/2017 1:35:00PM

Date/Time Received: 5/11/2017 9:50:00AM

Matrix: Ground Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	296	25	10	mg/L	SM 2540 C		1	05/12/17 11:45	05/12/17 11:45	7050407	JPT
Inorganic Anions											
Chloride	13	0.25	0.01	mg/L	EPA 300.0		1	05/12/17 09:41	05/12/17 12:55	7050437	SLH
Fluoride	0.04	0.30	0.004	mg/L	EPA 300.0	J	1	05/12/17 09:41	05/12/17 12:55	7050437	SLH
Sulfate	150	10	0.92	mg/L	EPA 300.0		10	05/12/17 09:41	05/18/17 17:07	7050437	SLH
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 21:58	7050449	CSW
Arsenic	0.0006	0.0050	0.0004	mg/L	EPA 6020B	J	1	05/12/17 12:00	05/15/17 21:58	7050449	CSW
Barium	0.125	0.0100	0.0003	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 21:58	7050449	CSW
Beryllium	ND	0.0030	0.00007	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 21:58	7050449	CSW
Boron	0.690	0.0400	0.0060	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 21:58	7050449	CSW
Cadmium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 21:58	7050449	CSW
Calcium	29.9	25.0	0.522	mg/L	EPA 6020B	B-01	50	05/12/17 12:00	05/15/17 22:04	7050449	CSW
Chromium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 21:58	7050449	CSW
Cobalt	0.0018	0.0100	0.0005	mg/L	EPA 6020B	J	1	05/12/17 12:00	05/15/17 21:58	7050449	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 21:58	7050449	CSW
Molybdenum	ND	0.0100	0.0006	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 21:58	7050449	CSW
Selenium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 21:58	7050449	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 21:58	7050449	CSW
Lithium	0.0132	0.0500	0.0011	mg/L	EPA 6020B	J	1	05/12/17 12:00	05/15/17 21:58	7050449	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	05/15/17 10:15	05/15/17 15:22	7050418	MTC



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Georgia Power
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 Atlanta GA, 30339

Attention: Mr. Joju Abraham

May 22, 2017

Report No.: AAE0387

Project: CCR Event

Client ID: YGWC-46

Lab Number ID: AAE0387-03

Date/Time Sampled: 5/8/2017 3:05:00PM

Date/Time Received: 5/11/2017 9:50:00AM

Matrix: Ground Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	1160	25	10	mg/L	SM 2540 C		1	05/12/17 11:45	05/12/17 11:45	7050407	JPT
Inorganic Anions											
Chloride	33	0.25	0.01	mg/L	EPA 300.0		1	05/12/17 09:41	05/12/17 13:15	7050437	SLH
Fluoride	0.004	0.30	0.004	mg/L	EPA 300.0	J	1	05/12/17 09:41	05/12/17 13:15	7050437	SLH
Sulfate	770	50	4.6	mg/L	EPA 300.0		50	05/12/17 09:41	05/18/17 17:28	7050437	SLH
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 22:21	7050449	CSW
Arsenic	0.0007	0.0050	0.0004	mg/L	EPA 6020B	J	1	05/12/17 12:00	05/15/17 22:21	7050449	CSW
Barium	0.0332	0.0100	0.0003	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 22:21	7050449	CSW
Beryllium	ND	0.0030	0.00007	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 22:21	7050449	CSW
Boron	1.71	1.00	0.302	mg/L	EPA 6020B		50	05/12/17 12:00	05/15/17 22:27	7050449	CSW
Cadmium	0.0001	0.0010	0.00006	mg/L	EPA 6020B	J	1	05/12/17 12:00	05/15/17 22:21	7050449	CSW
Calcium	103	25.0	0.522	mg/L	EPA 6020B	B-01	50	05/12/17 12:00	05/15/17 22:27	7050449	CSW
Chromium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 22:21	7050449	CSW
Cobalt	0.0367	0.0100	0.0005	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 22:21	7050449	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 22:21	7050449	CSW
Molybdenum	0.0008	0.0100	0.0006	mg/L	EPA 6020B	J	1	05/12/17 12:00	05/15/17 22:21	7050449	CSW
Selenium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 22:21	7050449	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 22:21	7050449	CSW
Lithium	0.0087	0.0500	0.0011	mg/L	EPA 6020B	J	1	05/12/17 12:00	05/15/17 22:21	7050449	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	05/15/17 10:15	05/15/17 15:24	7050418	MTC



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Georgia Power
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 Atlanta GA, 30339

Attention: Mr. Joju Abraham

May 22, 2017

Report No.: AAE0387

Project: CCR Event

Client ID: YGWC-36

Lab Number ID: AAE0387-04

Date/Time Sampled: 5/9/2017 11:55:00AM

Date/Time Received: 5/11/2017 9:50:00AM

Matrix: Ground Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	303	25	10	mg/L	SM 2540 C		1	05/12/17 11:45	05/12/17 11:45	7050407	JPT
Inorganic Anions											
Chloride	5.7	0.25	0.01	mg/L	EPA 300.0		1	05/12/17 09:41	05/12/17 13:36	7050437	SLH
Fluoride	0.009	0.30	0.004	mg/L	EPA 300.0	J	1	05/12/17 09:41	05/12/17 13:36	7050437	SLH
Sulfate	130	10	0.92	mg/L	EPA 300.0		10	05/12/17 09:41	05/18/17 17:48	7050437	SLH
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 22:33	7050449	CSW
Arsenic	0.0006	0.0050	0.0004	mg/L	EPA 6020B	J	1	05/12/17 12:00	05/15/17 22:33	7050449	CSW
Barium	0.0349	0.0100	0.0003	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 22:33	7050449	CSW
Beryllium	0.0002	0.0030	0.00007	mg/L	EPA 6020B	J	1	05/12/17 12:00	05/15/17 22:33	7050449	CSW
Boron	0.233	0.0400	0.0060	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 22:33	7050449	CSW
Cadmium	0.0002	0.0010	0.00006	mg/L	EPA 6020B	J	1	05/12/17 12:00	05/15/17 22:33	7050449	CSW
Calcium	13.9	5.00	0.522	mg/L	EPA 6020B	B-01	50	05/12/17 12:00	05/15/17 22:39	7050449	CSW
Chromium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 22:33	7050449	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 22:33	7050449	CSW
Lead	0.0004	0.0050	0.00007	mg/L	EPA 6020B	J	1	05/12/17 12:00	05/15/17 22:33	7050449	CSW
Molybdenum	0.0025	0.0100	0.0006	mg/L	EPA 6020B	J	1	05/12/17 12:00	05/15/17 22:33	7050449	CSW
Selenium	0.0018	0.0100	0.0014	mg/L	EPA 6020B	J	1	05/12/17 12:00	05/15/17 22:33	7050449	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 22:33	7050449	CSW
Lithium	0.0057	0.0500	0.0011	mg/L	EPA 6020B	J	1	05/12/17 12:00	05/15/17 22:33	7050449	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	05/15/17 10:15	05/15/17 15:27	7050418	MTC



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Environmental Monitoring & Laboratory Analysis
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Georgia Power
 2480 Maner Road
 Atlanta GA, 30339

Attention: Mr. Joju Abraham

May 22, 2017

Report No.: AAE0387

Project: CCR Event

Client ID: YGWC-49

Lab Number ID: AAE0387-05

Date/Time Sampled: 5/9/2017 1:20:00PM

Date/Time Received: 5/11/2017 9:50:00AM

Matrix: Ground Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	154	25	10	mg/L	SM 2540 C		1	05/12/17 11:45	05/12/17 11:45	7050407	JPT
Inorganic Anions											
Chloride	5.3	0.25	0.01	mg/L	EPA 300.0		1	05/12/17 09:41	05/12/17 13:57	7050437	SLH
Fluoride	0.05	0.30	0.004	mg/L	EPA 300.0	J	1	05/12/17 09:41	05/12/17 13:57	7050437	SLH
Sulfate	91	5.0	0.46	mg/L	EPA 300.0		5	05/12/17 09:41	05/18/17 18:09	7050437	SLH
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 22:44	7050449	CSW
Arsenic	ND	0.0050	0.0004	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 22:44	7050449	CSW
Barium	0.0792	0.0100	0.0003	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 22:44	7050449	CSW
Beryllium	0.0001	0.0030	0.00007	mg/L	EPA 6020B	J	1	05/12/17 12:00	05/15/17 22:44	7050449	CSW
Boron	ND	0.0400	0.0060	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 22:44	7050449	CSW
Cadmium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 22:44	7050449	CSW
Calcium	14.4	5.00	0.522	mg/L	EPA 6020B	B-01	50	05/12/17 12:00	05/15/17 22:50	7050449	CSW
Chromium	0.0017	0.0100	0.0003	mg/L	EPA 6020B	B-01, J	1	05/12/17 12:00	05/15/17 22:44	7050449	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 22:44	7050449	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 22:44	7050449	CSW
Molybdenum	ND	0.0100	0.0006	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 22:44	7050449	CSW
Selenium	0.0076	0.0100	0.0014	mg/L	EPA 6020B	J	1	05/12/17 12:00	05/15/17 22:44	7050449	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 22:44	7050449	CSW
Lithium	0.0038	0.0500	0.0011	mg/L	EPA 6020B	J	1	05/12/17 12:00	05/15/17 22:44	7050449	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	05/15/17 10:15	05/15/17 15:29	7050418	MTC



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 Atlanta GA, 30339

Attention: Mr. Joju Abraham

May 22, 2017

Report No.: AAE0387

Project: CCR Event

Client ID: YGWC-45

Lab Number ID: AAE0387-06

Date/Time Sampled: 5/9/2017 3:25:00PM

Date/Time Received: 5/11/2017 9:50:00AM

Matrix: Ground Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	388	25	10	mg/L	SM 2540 C		1	05/12/17 11:45	05/12/17 11:45	7050407	JPT
Inorganic Anions											
Chloride	4.6	0.25	0.01	mg/L	EPA 300.0		1	05/12/17 09:41	05/12/17 14:17	7050437	SLH
Fluoride	0.20	0.30	0.004	mg/L	EPA 300.0	J	1	05/12/17 09:41	05/12/17 14:17	7050437	SLH
Sulfate	190	10	0.92	mg/L	EPA 300.0		10	05/12/17 09:41	05/18/17 18:30	7050437	SLH
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 22:56	7050449	CSW
Arsenic	ND	0.0050	0.0004	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 22:56	7050449	CSW
Barium	0.0779	0.0100	0.0003	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 22:56	7050449	CSW
Beryllium	ND	0.0030	0.00007	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 22:56	7050449	CSW
Boron	0.338	0.0400	0.0060	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 22:56	7050449	CSW
Cadmium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 22:56	7050449	CSW
Calcium	56.0	25.0	0.522	mg/L	EPA 6020B	B-01	50	05/12/17 12:00	05/15/17 23:01	7050449	CSW
Chromium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 22:56	7050449	CSW
Cobalt	0.0008	0.0100	0.0005	mg/L	EPA 6020B	J	1	05/12/17 12:00	05/15/17 22:56	7050449	CSW
Lead	0.0001	0.0050	0.00007	mg/L	EPA 6020B	J	1	05/12/17 12:00	05/15/17 22:56	7050449	CSW
Molybdenum	0.0015	0.0100	0.0006	mg/L	EPA 6020B	J	1	05/12/17 12:00	05/15/17 22:56	7050449	CSW
Selenium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 22:56	7050449	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 22:56	7050449	CSW
Lithium	0.0136	0.0500	0.0011	mg/L	EPA 6020B	J	1	05/12/17 12:00	05/15/17 22:56	7050449	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	05/15/17 10:15	05/15/17 15:31	7050418	MTC



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 Atlanta GA, 30339

Attention: Mr. Joju Abraham

May 22, 2017

Report No.: AAE0387

Project: CCR Event

Client ID: Dup-1

Lab Number ID: AAE0387-07

Date/Time Sampled: 5/9/2017 12:00:00AM

Date/Time Received: 5/11/2017 9:50:00AM

Matrix: Ground Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	249	25	10	mg/L	SM 2540 C		1	05/12/17 11:45	05/12/17 11:45	7050407	JPT
Inorganic Anions											
Chloride	5.7	0.25	0.01	mg/L	EPA 300.0		1	05/12/17 09:41	05/12/17 14:59	7050437	SLH
Fluoride	0.04	0.30	0.004	mg/L	EPA 300.0	J	1	05/12/17 09:41	05/12/17 14:59	7050437	SLH
Sulfate	130	10	0.92	mg/L	EPA 300.0		10	05/12/17 09:41	05/18/17 18:50	7050437	SLH
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 23:07	7050449	CSW
Arsenic	0.0007	0.0050	0.0004	mg/L	EPA 6020B	J	1	05/12/17 12:00	05/15/17 23:07	7050449	CSW
Barium	0.0352	0.0100	0.0003	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 23:07	7050449	CSW
Beryllium	0.0002	0.0030	0.00007	mg/L	EPA 6020B	J	1	05/12/17 12:00	05/15/17 23:07	7050449	CSW
Boron	0.239	0.0400	0.0060	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 23:07	7050449	CSW
Cadmium	0.0002	0.0010	0.00006	mg/L	EPA 6020B	J	1	05/12/17 12:00	05/15/17 23:07	7050449	CSW
Calcium	14.1	5.00	0.522	mg/L	EPA 6020B	B-01	50	05/12/17 12:00	05/15/17 23:13	7050449	CSW
Chromium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 23:07	7050449	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 23:07	7050449	CSW
Lead	0.0003	0.0050	0.00007	mg/L	EPA 6020B	J	1	05/12/17 12:00	05/15/17 23:07	7050449	CSW
Molybdenum	0.0026	0.0100	0.0006	mg/L	EPA 6020B	J	1	05/12/17 12:00	05/15/17 23:07	7050449	CSW
Selenium	0.0016	0.0100	0.0014	mg/L	EPA 6020B	J	1	05/12/17 12:00	05/15/17 23:07	7050449	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 23:07	7050449	CSW
Lithium	0.0053	0.0500	0.0011	mg/L	EPA 6020B	J	1	05/12/17 12:00	05/15/17 23:07	7050449	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	05/15/17 10:15	05/15/17 15:39	7050418	MTC



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 Atlanta GA, 30339

May 22, 2017

Attention: Mr. Joju Abraham

Report No.: AAE0387

Project: CCR Event

Client ID: YGWC-42

Lab Number ID: AAE0387-08

Date/Time Sampled: 5/10/2017 12:05:00PM

Date/Time Received: 5/11/2017 9:50:00AM

Matrix: Ground Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	1630	25	10	mg/L	SM 2540 C		1	05/12/17 11:45	05/12/17 11:45	7050407	JPT
Inorganic Anions											
Chloride	4.4	0.25	0.01	mg/L	EPA 300.0		1	05/12/17 09:41	05/12/17 16:42	7050437	SLH
Fluoride	ND	0.30	0.004	mg/L	EPA 300.0		1	05/12/17 09:41	05/12/17 16:42	7050437	SLH
Sulfate	1200	50	4.6	mg/L	EPA 300.0		50	05/12/17 09:41	05/18/17 19:11	7050437	SLH
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 23:30	7050449	CSW
Arsenic	0.0022	0.0050	0.0004	mg/L	EPA 6020B	J	1	05/12/17 12:00	05/15/17 23:30	7050449	CSW
Barium	0.0517	0.0100	0.0003	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 23:30	7050449	CSW
Beryllium	0.00009	0.0030	0.00007	mg/L	EPA 6020B	J	1	05/12/17 12:00	05/15/17 23:30	7050449	CSW
Boron	20.4	2.00	0.302	mg/L	EPA 6020B		50	05/12/17 12:00	05/15/17 23:36	7050449	CSW
Cadmium	0.0002	0.0010	0.00006	mg/L	EPA 6020B	J	1	05/12/17 12:00	05/15/17 23:30	7050449	CSW
Calcium	130	25.0	0.522	mg/L	EPA 6020B	B-01	50	05/12/17 12:00	05/15/17 23:36	7050449	CSW
Chromium	0.0006	0.0100	0.0003	mg/L	EPA 6020B	B-01, J	1	05/12/17 12:00	05/15/17 23:30	7050449	CSW
Cobalt	0.0021	0.0100	0.0005	mg/L	EPA 6020B	J	1	05/12/17 12:00	05/15/17 23:30	7050449	CSW
Lead	0.00009	0.0050	0.00007	mg/L	EPA 6020B	J	1	05/12/17 12:00	05/15/17 23:30	7050449	CSW
Molybdenum	0.0017	0.0100	0.0006	mg/L	EPA 6020B	J	1	05/12/17 12:00	05/15/17 23:30	7050449	CSW
Selenium	0.0530	0.0100	0.0014	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 23:30	7050449	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 23:30	7050449	CSW
Lithium	0.0316	0.0500	0.0011	mg/L	EPA 6020B	J	1	05/12/17 12:00	05/15/17 23:30	7050449	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	05/15/17 10:15	05/15/17 15:41	7050418	MTC



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Georgia Power
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 Atlanta GA, 30339

Attention: Mr. Joju Abraham

May 22, 2017

Report No.: AAE0387

Project: CCR Event

Client ID: YGWC-43

Lab Number ID: AAE0387-09

Date/Time Sampled: 5/10/2017 10:15:00AM

Date/Time Received: 5/11/2017 9:50:00AM

Matrix: Ground Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	203	25	10	mg/L	SM 2540 C		1	05/12/17 11:45	05/12/17 11:45	7050407	JPT
Inorganic Anions											
Chloride	1.2	0.25	0.01	mg/L	EPA 300.0		1	05/12/17 09:41	05/12/17 17:03	7050437	SLH
Fluoride	0.04	0.30	0.004	mg/L	EPA 300.0	J	1	05/12/17 09:41	05/12/17 17:03	7050437	SLH
Sulfate	100	5.0	0.46	mg/L	EPA 300.0		5	05/12/17 09:41	05/18/17 19:32	7050437	SLH
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 23:41	7050449	CSW
Arsenic	ND	0.0050	0.0004	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 23:41	7050449	CSW
Barium	0.0173	0.0100	0.0003	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 23:41	7050449	CSW
Beryllium	ND	0.0030	0.00007	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 23:41	7050449	CSW
Boron	0.955	0.0400	0.0060	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 23:41	7050449	CSW
Cadmium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 23:41	7050449	CSW
Calcium	7.90	0.500	0.0104	mg/L	EPA 6020B	B-01	1	05/12/17 12:00	05/15/17 23:41	7050449	CSW
Chromium	0.0005	0.0100	0.0003	mg/L	EPA 6020B	B-01, J	1	05/12/17 12:00	05/15/17 23:41	7050449	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 23:41	7050449	CSW
Lead	0.00008	0.0050	0.00007	mg/L	EPA 6020B	J	1	05/12/17 12:00	05/15/17 23:41	7050449	CSW
Molybdenum	ND	0.0100	0.0006	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 23:41	7050449	CSW
Selenium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 23:41	7050449	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 23:41	7050449	CSW
Lithium	0.0123	0.0500	0.0011	mg/L	EPA 6020B	J	1	05/12/17 12:00	05/15/17 23:41	7050449	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	05/15/17 10:15	05/15/17 15:43	7050418	MTC



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 Atlanta GA, 30339

May 22, 2017

Attention: Mr. Joju Abraham

Report No.: AAE0387

Project: CCR Event

Client ID: EB-1-5-10-17

Lab Number ID: AAE0387-10

Date/Time Sampled: 5/10/2017 11:50:00AM

Date/Time Received: 5/11/2017 9:50:00AM

Matrix: Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	ND	25	10	mg/L	SM 2540 C		1	05/12/17 11:45	05/12/17 11:45	7050407	JPT
Inorganic Anions											
Chloride	ND	0.25	0.01	mg/L	EPA 300.0		1	05/12/17 09:41	05/12/17 17:23	7050437	SLH
Fluoride	0.009	0.30	0.004	mg/L	EPA 300.0	J	1	05/12/17 09:41	05/12/17 17:23	7050437	SLH
Sulfate	ND	1.0	0.09	mg/L	EPA 300.0		1	05/12/17 09:41	05/12/17 17:23	7050437	SLH
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 23:53	7050449	CSW
Arsenic	ND	0.0050	0.0004	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 23:53	7050449	CSW
Barium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 23:53	7050449	CSW
Beryllium	ND	0.0030	0.00007	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 23:53	7050449	CSW
Boron	0.0071	0.0400	0.0060	mg/L	EPA 6020B	J	1	05/12/17 12:00	05/15/17 23:53	7050449	CSW
Cadmium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 23:53	7050449	CSW
Calcium	0.0638	0.500	0.0104	mg/L	EPA 6020B	B-01, J	1	05/12/17 12:00	05/15/17 23:53	7050449	CSW
Chromium	0.0004	0.0100	0.0003	mg/L	EPA 6020B	B-01, J	1	05/12/17 12:00	05/15/17 23:53	7050449	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 23:53	7050449	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 23:53	7050449	CSW
Molybdenum	ND	0.0100	0.0006	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 23:53	7050449	CSW
Selenium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 23:53	7050449	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 23:53	7050449	CSW
Lithium	ND	0.0500	0.0011	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 23:53	7050449	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	05/15/17 10:15	05/15/17 15:46	7050418	MTC



PACE ANALYTICAL SERVICES, LLC.

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 Atlanta GA, 30339

Attention: Mr. Joju Abraham

May 22, 2017

Report No.: AAE0387

Project: CCR Event

Client ID: FB-1-5-9-17

Lab Number ID: AAE0387-11

Date/Time Sampled: 5/9/2017 10:25:00AM

Date/Time Received: 5/11/2017 9:50:00AM

Matrix: Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	ND	25	10	mg/L	SM 2540 C		1	05/12/17 11:45	05/12/17 11:45	7050407	JPT
Inorganic Anions											
Chloride	ND	0.25	0.01	mg/L	EPA 300.0		1	05/12/17 09:41	05/12/17 17:44	7050437	SLH
Fluoride	ND	0.30	0.004	mg/L	EPA 300.0		1	05/12/17 09:41	05/12/17 17:44	7050437	SLH
Sulfate	ND	1.0	0.09	mg/L	EPA 300.0		1	05/12/17 09:41	05/12/17 17:44	7050437	SLH
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 23:59	7050449	CSW
Arsenic	ND	0.0050	0.0004	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 23:59	7050449	CSW
Barium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 23:59	7050449	CSW
Beryllium	ND	0.0030	0.00007	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 23:59	7050449	CSW
Boron	ND	0.0400	0.0060	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 23:59	7050449	CSW
Cadmium	ND	0.0010	0.00006	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 23:59	7050449	CSW
Calcium	0.0497	0.500	0.0104	mg/L	EPA 6020B	B-01, J	1	05/12/17 12:00	05/15/17 23:59	7050449	CSW
Chromium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 23:59	7050449	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 23:59	7050449	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 23:59	7050449	CSW
Molybdenum	ND	0.0100	0.0006	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 23:59	7050449	CSW
Selenium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 23:59	7050449	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 23:59	7050449	CSW
Lithium	ND	0.0500	0.0011	mg/L	EPA 6020B		1	05/12/17 12:00	05/15/17 23:59	7050449	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	05/15/17 10:15	05/15/17 15:48	7050418	MTC



PACE ANALYTICAL SERVICES, LLC.

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Georgia Power
 2480 Maner Road
 Atlanta GA, 30339

Attention: Mr. Joju Abraham

May 22, 2017

Report No.: AAE0387

General Chemistry - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7050407 - SM 2540 C											
Blank (7050407-BLK1)						Prepared & Analyzed: 05/12/17					
Total Dissolved Solids	ND	25	10	mg/L							
LCS (7050407-BS1)						Prepared & Analyzed: 05/12/17					
Total Dissolved Solids	378	25	10	mg/L	400.00		94	84-108			
Duplicate (7050407-DUP1)						Source: AAE0313-05 Prepared & Analyzed: 05/12/17					
Total Dissolved Solids	ND	25	10	mg/L		ND				10	
Duplicate (7050407-DUP2)						Source: AAE0387-09 Prepared & Analyzed: 05/12/17					
Total Dissolved Solids	218	25	10	mg/L		203			7	10	



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May 22, 2017

Report No.: AAE0387

Inorganic Anions - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7050437 - EPA 300.0											
Blank (7050437-BLK1)						Prepared & Analyzed: 05/12/17					
Chloride	ND	0.25	0.01	mg/L							
Fluoride	ND	0.30	0.004	mg/L							
Sulfate	ND	1.0	0.09	mg/L							
LCS (7050437-BS1)						Prepared & Analyzed: 05/12/17					
Chloride	10.0	0.25	0.01	mg/L	10.020		100	90-110			
Fluoride	10.0	0.30	0.004	mg/L	10.020		100	90-110			
Sulfate	10.2	1.0	0.09	mg/L	10.050		101	90-110			
Matrix Spike (7050437-MS1)						Source: AAE0387-01 Prepared & Analyzed: 05/12/17					
Chloride	15.8	0.25	0.01	mg/L	10.020	5.79	100	90-110			
Fluoride	10.4	0.30	0.004	mg/L	10.020	0.03	104	90-110			
Sulfate	109	1.0	0.09	mg/L	10.050	110	NR	90-110			QM-02
Matrix Spike (7050437-MS2)						Source: AAE0387-06 Prepared & Analyzed: 05/12/17					
Chloride	14.9	0.25	0.01	mg/L	10.020	4.60	103	90-110			
Fluoride	10.7	0.30	0.004	mg/L	10.020	0.20	105	90-110			
Sulfate	152	1.0	0.09	mg/L	10.050	157	NR	90-110			QM-02
Matrix Spike Dup (7050437-MSD1)						Source: AAE0387-01 Prepared & Analyzed: 05/12/17					
Chloride	16.0	0.25	0.01	mg/L	10.020	5.79	101	90-110	1	15	
Fluoride	10.6	0.30	0.004	mg/L	10.020	0.03	106	90-110	2	15	
Sulfate	108	1.0	0.09	mg/L	10.050	110	NR	90-110	0.2	15	QM-02



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Report No.: AAE0387

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7050418 - EPA 7470A											
Blank (7050418-BLK1) Prepared & Analyzed: 05/15/17											
Mercury	ND	0.00050	0.000041	mg/L							
LCS (7050418-BS1) Prepared & Analyzed: 05/15/17											
Mercury	0.00218	0.00050	0.000041	mg/L	2.5000E-3		87	80-120			
Matrix Spike (7050418-MS1) Source: AAE0313-03 Prepared & Analyzed: 05/15/17											
Mercury	0.00217	0.00050	0.000041	mg/L	2.5000E-3	ND	87	75-125			
Matrix Spike Dup (7050418-MSD1) Source: AAE0313-03 Prepared & Analyzed: 05/15/17											
Mercury	0.00215	0.00050	0.000041	mg/L	2.5000E-3	ND	86	75-125	1	20	
Post Spike (7050418-PS1) Source: AAE0313-03 Prepared & Analyzed: 05/15/17											
Mercury	1.78			ug/L	1.6667	-0.00823	107	80-120			
Batch 7050449 - EPA 3005A											
Blank (7050449-BLK1) Prepared: 05/12/17 Analyzed: 05/15/17											
Antimony	ND	0.0030	0.0003	mg/L							
Arsenic	ND	0.0050	0.0004	mg/L							
Barium	ND	0.0100	0.0003	mg/L							
Beryllium	ND	0.0030	0.00007	mg/L							
Boron	ND	0.0400	0.0060	mg/L							
Cadmium	ND	0.0010	0.00006	mg/L							
Calcium	0.0319	0.500	0.0104	mg/L							J
Chromium	0.0006	0.0100	0.0003	mg/L							J
Cobalt	ND	0.0100	0.0005	mg/L							
Copper	ND	0.0250	0.0003	mg/L							
Lead	ND	0.0050	0.00007	mg/L							
Molybdenum	ND	0.0100	0.0006	mg/L							
Nickel	ND	0.0100	0.0003	mg/L							
Selenium	ND	0.0100	0.0014	mg/L							
Silver	ND	0.0100	0.0003	mg/L							
Thallium	ND	0.0010	0.00005	mg/L							
Vanadium	ND	0.0100	0.0014	mg/L							
Zinc	ND	0.0100	0.0013	mg/L							
Lithium	ND	0.0500	0.0011	mg/L							



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Attention: Mr. Joju Abraham

May 22, 2017

Report No.: AAE0387

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 7050449 - EPA 3005A

LCS (7050449-BS1)

Prepared: 05/12/17 Analyzed: 05/15/17

Antimony	0.116	0.0030	0.0003	mg/L	0.10000		116	80-120			
Arsenic	0.102	0.0050	0.0004	mg/L	0.10000		102	80-120			
Barium	0.105	0.0100	0.0003	mg/L	0.10000		105	80-120			
Beryllium	0.108	0.0030	0.00007	mg/L	0.10000		108	80-120			
Boron	1.17	0.0400	0.0060	mg/L	1.0000		117	80-120			
Cadmium	0.104	0.0010	0.00006	mg/L	0.10000		104	80-120			
Calcium	1.05	0.500	0.0104	mg/L	1.0000		105	80-120			
Chromium	0.102	0.0100	0.0003	mg/L	0.10000		102	80-120			
Cobalt	0.103	0.0100	0.0005	mg/L	0.10000		103	80-120			
Copper	0.103	0.0250	0.0003	mg/L	0.10000		103	80-120			
Lead	0.106	0.0050	0.00007	mg/L	0.10000		106	80-120			
Molybdenum	0.106	0.0100	0.0006	mg/L	0.10000		106	80-120			
Nickel	0.103	0.0100	0.0003	mg/L	0.10000		103	80-120			
Selenium	0.108	0.0100	0.0014	mg/L	0.10000		108	80-120			
Silver	0.110	0.0100	0.0003	mg/L	0.10000		110	80-120			
Thallium	0.107	0.0010	0.00005	mg/L	0.10000		107	80-120			
Vanadium	0.0978	0.0100	0.0014	mg/L	0.10000		98	80-120			
Zinc	0.102	0.0100	0.0013	mg/L	0.10000		102	80-120			
Lithium	0.113	0.0500	0.0011	mg/L	0.10000		113	80-120			

Matrix Spike (7050449-MS1)

Source: AAE0387-02

Prepared: 05/12/17 Analyzed: 05/15/17

Antimony	0.111	0.0030	0.0003	mg/L	0.10000	ND	111	75-125			
Arsenic	0.107	0.0050	0.0004	mg/L	0.10000	0.0006	106	75-125			
Barium	0.240	0.0100	0.0003	mg/L	0.10000	0.125	115	75-125			
Beryllium	0.0991	0.0030	0.00007	mg/L	0.10000	ND	99	75-125			
Boron	2.08	0.0400	0.0060	mg/L	1.0000	0.690	139	75-125			QM-02
Cadmium	0.104	0.0010	0.00006	mg/L	0.10000	ND	104	75-125			
Calcium	30.2	25.0	0.522	mg/L	1.0000	29.9	33	75-125			QM-02
Chromium	0.102	0.0100	0.0003	mg/L	0.10000	ND	102	75-125			
Cobalt	0.0999	0.0100	0.0005	mg/L	0.10000	0.0018	98	75-125			
Copper	0.0966	0.0250	0.0003	mg/L	0.10000	ND	97	75-125			
Lead	0.0976	0.0050	0.00007	mg/L	0.10000	ND	98	75-125			
Molybdenum	0.102	0.0100	0.0006	mg/L	0.10000	ND	102	75-125			
Nickel	0.102	0.0100	0.0003	mg/L	0.10000	0.0016	101	75-125			
Selenium	0.104	0.0100	0.0014	mg/L	0.10000	ND	104	75-125			
Silver	0.101	0.0100	0.0003	mg/L	0.10000	ND	101	75-125			
Thallium	0.100	0.0010	0.00005	mg/L	0.10000	ND	100	75-125			
Vanadium	0.100	0.0100	0.0014	mg/L	0.10000	ND	100	75-125			
Zinc	0.0970	0.0100	0.0013	mg/L	0.10000	0.0013	96	75-125			
Lithium	0.113	0.0500	0.0011	mg/L	0.10000	0.0132	100	75-125			



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 Atlanta GA, 30339

Attention: Mr. Joju Abraham

May 22, 2017

Report No.: AAE0387

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7050449 - EPA 3005A											
Matrix Spike Dup (7050449-MSD1)			Source: AAE0387-02			Prepared: 05/12/17 Analyzed: 05/15/17					
Antimony	0.115	0.0030	0.0003	mg/L	0.10000	ND	115	75-125	3	20	
Arsenic	0.107	0.0050	0.0004	mg/L	0.10000	0.0006	106	75-125	0.2	20	
Barium	0.249	0.0100	0.0003	mg/L	0.10000	0.125	124	75-125	3	20	
Beryllium	0.106	0.0030	0.00007	mg/L	0.10000	ND	106	75-125	7	20	
Boron	2.11	0.0400	0.0060	mg/L	1.0000	0.690	142	75-125	1	20	QM-02
Cadmium	0.102	0.0010	0.00006	mg/L	0.10000	ND	102	75-125	1	20	
Calcium	30.2	25.0	0.522	mg/L	1.0000	29.9	32	75-125	0.03	20	QM-02
Chromium	0.104	0.0100	0.0003	mg/L	0.10000	ND	104	75-125	2	20	
Cobalt	0.103	0.0100	0.0005	mg/L	0.10000	0.0018	101	75-125	3	20	
Copper	0.0993	0.0250	0.0003	mg/L	0.10000	ND	99	75-125	3	20	
Lead	0.102	0.0050	0.00007	mg/L	0.10000	ND	102	75-125	5	20	
Molybdenum	0.105	0.0100	0.0006	mg/L	0.10000	ND	105	75-125	3	20	
Nickel	0.102	0.0100	0.0003	mg/L	0.10000	0.0016	100	75-125	0.5	20	
Selenium	0.109	0.0100	0.0014	mg/L	0.10000	ND	109	75-125	4	20	
Silver	0.102	0.0100	0.0003	mg/L	0.10000	ND	102	75-125	0.2	20	
Thallium	0.106	0.0010	0.00005	mg/L	0.10000	ND	106	75-125	5	20	
Vanadium	0.107	0.0100	0.0014	mg/L	0.10000	ND	107	75-125	6	20	
Zinc	0.104	0.0100	0.0013	mg/L	0.10000	0.0013	102	75-125	7	20	
Lithium	0.121	0.0500	0.0011	mg/L	0.10000	0.0132	108	75-125	7	20	
Post Spike (7050449-PS1)											
Source: AAE0387-02			Prepared: 05/12/17 Analyzed: 05/15/17								
Antimony	113			ug/L	100.00	0.177	113	80-120			
Arsenic	105			ug/L	100.00	0.577	105	80-120			
Barium	245			ug/L	100.00	125	120	80-120			
Beryllium	99.0			ug/L	100.00	0.0141	99	80-120			
Boron	2110			ug/L	1000.0	690	142	80-120			QM-02
Cadmium	104			ug/L	100.00	-0.0077	104	80-120			
Calcium	28800			ug/L	1000.0	29900	NR	80-120			QM-02
Chromium	104			ug/L	100.00	0.154	104	80-120			
Cobalt	104			ug/L	100.00	1.80	102	80-120			
Copper	97.2			ug/L	100.00	0.173	97	80-120			
Lead	100			ug/L	100.00	0.0257	100	80-120			
Molybdenum	105			ug/L	100.00	0.375	105	80-120			
Nickel	101			ug/L	100.00	1.58	99	80-120			
Selenium	105			ug/L	100.00	0.504	105	80-120			
Silver	104			ug/L	100.00	0.0031	104	80-120			
Thallium	104			ug/L	100.00	0.0152	104	80-120			
Vanadium	105			ug/L	100.00	0.464	105	80-120			
Zinc	101			ug/L	100.00	1.26	99	80-120			
Lithium	115			ug/L	100.00	13.2	102	80-120			



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May 22, 2017

Report No.: AAE0387

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7050474 - EPA 3005A											
Blank (7050474-BLK1)											
						Prepared: 05/15/17 Analyzed: 05/17/17					
Antimony	0.0003	0.0030	0.0003	mg/L							J
Arsenic	ND	0.0050	0.0004	mg/L							
Barium	ND	0.0100	0.0003	mg/L							
Beryllium	ND	0.0030	0.00007	mg/L							
Boron	ND	0.0400	0.0060	mg/L							
Cadmium	ND	0.0010	0.00006	mg/L							
Calcium	ND	0.500	0.0104	mg/L							
Chromium	ND	0.0100	0.0003	mg/L							
Cobalt	ND	0.0100	0.0005	mg/L							
Copper	ND	0.0250	0.0003	mg/L							
Lead	ND	0.0050	0.00007	mg/L							
Molybdenum	ND	0.0100	0.0006	mg/L							
Nickel	ND	0.0100	0.0003	mg/L							
Selenium	ND	0.0100	0.0014	mg/L							
Silver	ND	0.0100	0.0003	mg/L							
Thallium	ND	0.0010	0.00005	mg/L							
Vanadium	ND	0.0100	0.0014	mg/L							
Zinc	ND	0.0100	0.0013	mg/L							
Lithium	ND	0.0500	0.0011	mg/L							
LCS (7050474-BS1)											
						Prepared: 05/15/17 Analyzed: 05/17/17					
Antimony	0.106	0.0030	0.0003	mg/L	0.10000		106	80-120			
Arsenic	0.102	0.0050	0.0004	mg/L	0.10000		102	80-120			
Barium	0.104	0.0100	0.0003	mg/L	0.10000		104	80-120			
Beryllium	0.0986	0.0030	0.00007	mg/L	0.10000		99	80-120			
Boron	0.990	0.0400	0.0060	mg/L	1.0000		99	80-120			
Cadmium	0.0997	0.0010	0.00006	mg/L	0.10000		100	80-120			
Calcium	0.982	0.500	0.0104	mg/L	1.0000		98	80-120			
Chromium	0.100	0.0100	0.0003	mg/L	0.10000		100	80-120			
Cobalt	0.0954	0.0100	0.0005	mg/L	0.10000		95	80-120			
Copper	0.103	0.0250	0.0003	mg/L	0.10000		103	80-120			
Lead	0.0978	0.0050	0.00007	mg/L	0.10000		98	80-120			
Molybdenum	0.103	0.0100	0.0006	mg/L	0.10000		103	80-120			
Nickel	0.101	0.0100	0.0003	mg/L	0.10000		101	80-120			
Selenium	0.105	0.0100	0.0014	mg/L	0.10000		105	80-120			
Silver	0.104	0.0100	0.0003	mg/L	0.10000		104	80-120			
Thallium	0.0971	0.0010	0.00005	mg/L	0.10000		97	80-120			
Vanadium	0.104	0.0100	0.0014	mg/L	0.10000		104	80-120			
Zinc	0.0929	0.0100	0.0013	mg/L	0.10000		93	80-120			
Lithium	0.0983	0.0500	0.0011	mg/L	0.10000		98	80-120			



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Report No.: AAE0387

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7050474 - EPA 3005A											
Matrix Spike (7050474-MS1)			Source: AAE0387-01				Prepared: 05/15/17 Analyzed: 05/17/17				
Antimony	0.108	0.0030	0.0003	mg/L	0.10000	0.0004	107	75-125			
Arsenic	0.0986	0.0050	0.0004	mg/L	0.10000	ND	99	75-125			
Barium	0.128	0.0100	0.0003	mg/L	0.10000	0.0251	103	75-125			
Beryllium	0.105	0.0030	0.00007	mg/L	0.10000	0.00007	105	75-125			
Boron	1.08	0.0400	0.0060	mg/L	1.0000	0.0141	107	75-125			
Cadmium	0.103	0.0010	0.00006	mg/L	0.10000	0.0001	103	75-125			
Calcium	15.6	25.0	0.522	mg/L	1.0000	14.6	110	75-125			J
Chromium	0.0991	0.0100	0.0003	mg/L	0.10000	ND	99	75-125			
Cobalt	0.106	0.0100	0.0005	mg/L	0.10000	0.0099	96	75-125			
Copper	0.106	0.0250	0.0003	mg/L	0.10000	0.0004	105	75-125			
Lead	0.0966	0.0050	0.00007	mg/L	0.10000	ND	97	75-125			
Molybdenum	0.102	0.0100	0.0006	mg/L	0.10000	ND	102	75-125			
Nickel	0.100	0.0100	0.0003	mg/L	0.10000	0.0026	98	75-125			
Selenium	0.106	0.0100	0.0014	mg/L	0.10000	ND	106	75-125			
Silver	0.0986	0.0100	0.0003	mg/L	0.10000	ND	99	75-125			
Thallium	0.0943	0.0010	0.00005	mg/L	0.10000	ND	94	75-125			
Vanadium	0.104	0.0100	0.0014	mg/L	0.10000	ND	104	75-125			
Zinc	0.0955	0.0100	0.0013	mg/L	0.10000	0.0019	94	75-125			
Lithium	0.108	0.0500	0.0011	mg/L	0.10000	0.0053	103	75-125			
Matrix Spike Dup (7050474-MSD1)			Source: AAE0387-01				Prepared: 05/15/17 Analyzed: 05/17/17				
Antimony	0.111	0.0030	0.0003	mg/L	0.10000	0.0004	110	75-125	3	20	
Arsenic	0.103	0.0050	0.0004	mg/L	0.10000	ND	103	75-125	4	20	
Barium	0.132	0.0100	0.0003	mg/L	0.10000	0.0251	107	75-125	3	20	
Beryllium	0.108	0.0030	0.00007	mg/L	0.10000	0.00007	107	75-125	2	20	
Boron	1.05	0.0400	0.0060	mg/L	1.0000	0.0141	104	75-125	3	20	
Cadmium	0.101	0.0010	0.00006	mg/L	0.10000	0.0001	101	75-125	2	20	
Calcium	17.0	25.0	0.522	mg/L	1.0000	14.6	245	75-125	8	20	QM-02, J
Chromium	0.0930	0.0100	0.0003	mg/L	0.10000	ND	93	75-125	6	20	
Cobalt	0.103	0.0100	0.0005	mg/L	0.10000	0.0099	93	75-125	3	20	
Copper	0.0980	0.0250	0.0003	mg/L	0.10000	0.0004	98	75-125	7	20	
Lead	0.0977	0.0050	0.00007	mg/L	0.10000	ND	98	75-125	1	20	
Molybdenum	0.105	0.0100	0.0006	mg/L	0.10000	ND	105	75-125	3	20	
Nickel	0.0954	0.0100	0.0003	mg/L	0.10000	0.0026	93	75-125	5	20	
Selenium	0.104	0.0100	0.0014	mg/L	0.10000	ND	104	75-125	1	20	
Silver	0.103	0.0100	0.0003	mg/L	0.10000	ND	103	75-125	4	20	
Thallium	0.0979	0.0010	0.00005	mg/L	0.10000	ND	98	75-125	4	20	
Vanadium	0.103	0.0100	0.0014	mg/L	0.10000	ND	103	75-125	0.9	20	
Zinc	0.0929	0.0100	0.0013	mg/L	0.10000	0.0019	91	75-125	3	20	
Lithium	0.107	0.0500	0.0011	mg/L	0.10000	0.0053	102	75-125	1	20	



PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
 110 Technology Parkway, Peachtree Corners, GA 30092
 (770) 734-4200 FAX (770) 734-4201

Georgia Power
 2480 Maner Road
 Atlanta GA, 30339

Attention: Mr. Joju Abraham

May 22, 2017

Report No.: AAE0387

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7050474 - EPA 3005A											
Post Spike (7050474-PS1)			Source: AAE0387-01			Prepared: 05/15/17 Analyzed: 05/17/17					
Antimony	104			ug/L	100.00	0.356	103	80-120			
Arsenic	101			ug/L	100.00	0.394	100	80-120			
Barium	132			ug/L	100.00	25.1	107	80-120			
Beryllium	106			ug/L	100.00	0.0713	106	80-120			
Boron	1090			ug/L	1000.0	14.1	107	80-120			
Cadmium	100			ug/L	100.00	0.141	100	80-120			
Calcium	16400			ug/L	1000.0	14600	188	80-120			QM-02
Chromium	106			ug/L	100.00	0.255	106	80-120			
Cobalt	112			ug/L	100.00	9.88	102	80-120			
Copper	102			ug/L	100.00	0.417	102	80-120			
Lead	100			ug/L	100.00	0.0274	100	80-120			
Molybdenum	106			ug/L	100.00	0.329	106	80-120			
Nickel	99.6			ug/L	100.00	2.58	97	80-120			
Selenium	106			ug/L	100.00	1.38	104	80-120			
Silver	103			ug/L	100.00	0.0036	103	80-120			
Thallium	101			ug/L	100.00	0.0391	101	80-120			
Vanadium	112			ug/L	100.00	1.32	110	80-120			
Zinc	110			ug/L	100.00	1.91	108	80-120			
Lithium	115			ug/L	100.00	5.34	109	80-120			



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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

May 22, 2017

Legend

Definition of Laboratory Terms

- ND** - Not Detected at levels equal to or greater than the MDL
- BRL** - Not Detected at levels equal to or greater than the RL
- RL** - Reporting Limit **MDL** - Method Detection Limit
- SOP** - Method run per Pace Standard Operating Procedure
- CFU** - Colony Forming Units
- DF** - Dilution Factor **TIC** - Tentatively Identified Compound

Sample Information

N-Nitrosodiphenylamine breaks down to diphenylamine in the GCMS; both analytes are reported as N-Nitrosodiphenylamine. Pace is not NELAC certified for N-Nitrosodiphenylamine.

Phthalic acid and phthalic anhydride are reported as dimethyl phthalate

Maleic acid and maleic anhydride are reported as dimethyl malate

1,2-Diphenylhydrazine breaks down to azobenzene in the GCMS; both analytes are reported as azobenzene

Definition of Qualifiers

- QM-02** The spike recovery is outside acceptance limits due to insignificant spike amount as compared to sample concentration.
- J** Estimated value less than Reporting Limit (RL) but greater than Method Detection Limit(MDL) (CLP J-Flag).
- B-01** Analyte was detected in the associated method blank at an estimated level equal to or greater than the MDL. Sample values reported as greater than the MDL and less than 10x the method blank value are reported as estimated values.

Note: Unless otherwise noted, all results are reported on an as received basis.

CHAIN OF CUSTODY RECORD

Pace Analytical Services, Inc.
 110 TECHNOLOGY PARKWAY, PEACHTREE CORNERS, GA 30092
 (770) 734-4200 : FAX (770) 734-4201 : www.ash-lab.com

PAGE: 1 OF 1

CLIENT NAME: Georgia Power
CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER: 241 Ralph McGill Blvd SE B10185 Atlanta, GA 30308 404-506-7239
REPORT TO: Lauren Petty
CC: Maria Padilla Heath McCorkle
PO #: laburch@southernco.com
PROJECT NAME/STATE: Plant Yates Phase II Facilities
PROJECT #: Phase 2 CCR

Collection DATE M/D/Y	Collection TIME	MATRIX CODE	C O R A B	ANALYSIS REQUESTED				CONTAINER TYPE PRESERVATION: # of	CONTAINER TYPE PRESERVATION	REMARKS/ADDITIONAL INFORMATION
				M	P	P	P			
5/8/17	1200	GW	✓				3	P - PLASTIC A - AMBER GLASS G - CLEAR GLASS V - VOA VIAL S - STERILE O - OTHER	DW - DRINKING WATER S - SOIL WW - WASTEWATER SL - SLUDGE GW - GROUNDWATER SD - SOLID SW - SURFACE WATER A - AIR ST - STORM WATER L - LIQUID W - WATER P - PRODUCT	
5/8/17	1335	GW	✓				3	(FPA 6020/7470) Metals App. III & IV (FPA 300.D & SM 2540C) Cl, F, SO ₄ & TDS (FPA 846 9315/9320) Radium 226 & 228 (SVI-846 9315/9320)		
5/8/17	1505	GW	✓				3			
5/9/17	1155	GW	✓				3			
5/9/17	1320	GW	✓				3			
5/9/17	1525	GW	✓				3			
5/9/17	-	GW	✓				3			
5/10/17	1205	GW	✓				3			
5/10/17	1015	GW	✓				3			
5/10/17	1150	W	✓				3			
5/9/17	1025	W	✓				3			

SAMPLED BY AND TITLE: J. Rivers Ford
RECEIVED BY: ACC
DATE/TIME: 5/10/17 1930
RELINQUISHED BY: [Signature]
DATE/TIME: 5/11/17 0950
RELINQUISHED BY: [Signature]
DATE/TIME: 5/11/17 1950

LAB #: AA E0387
Entered into LIMS Tracking #: [Signature]

CLIENT: [Signature]
COURIER: [Signature]
OTHER: [Signature]

TEMPERATURE: 14.0 Min 14.0 Max
NO. TESTS: 14.0
NO. NA: 14.0
NO. BROKEN: 14.0
NO. PRESENT: 14.0

Plant Yates COC Phase II Facilities



PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

LOG-IN CHECKLIST

Printed: 5/12/2017 10:59:18AM

Attn: Mr. Joju Abraham

Client: Georgia Power

Project: CCR Event

Date Received: 05/11/17 09:50

Work Order: AAE0387

Logged In By: Mohammad M. Rahman

OBSERVATIONS

#Samples: 11

#Containers: 44

Minimum Temp(C): 4.0

Maximum Temp(C): 4.0

Custody Seal(s) Used: Yes

CHECKLIST ITEMS

- COC included with Samples YES
- Sample Container(s) Intact YES
- Chain of Custody Complete YES
- Sample Container(s) Match COC YES
- Custody seal Intact YES
- Temperature in Compliance YES
- Sufficient Sample Volume for Analysis YES
- Zero Headspace Maintained for VOA Analyses YES
- Samples labeled preserved (If Applicable) YES
- Samples received within Allowable Hold Times YES
- Samples Received on Ice YES
- Preservation Confirmed YES

Comments:

June 07, 2017

Maria Padilla
GA Power
2480 Maner Rd
Atlanta, GA 30339

RE: Project: AAE0387 Plant Yates
Pace Project No.: 30218704

Dear Maria Padilla:

Enclosed are the analytical results for sample(s) received by the laboratory on May 12, 2017. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Jacquelyn Collins
jacquelyn.collins@pacelabs.com
(724)850-5612
Project Manager

Enclosures



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: AAE0387 Plant Yates
Pace Project No.: 30218704

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
L-A-B DOD-ELAP Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification
Connecticut Certification #: PH-0694
Delaware Certification
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: 90133
Louisiana DHH/TNI Certification #: LA140008
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: PA00091
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification
Missouri Certification #: 235

Montana Certification #: Cert 0082
Nebraska Certification #: NE-05-29-14
Nevada Certification #: PA014572015-1
New Hampshire/TNI Certification #: 2976
New Jersey/TNI Certification #: PA 051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Oregon/TNI Certification #: PA200002
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN2867
Texas/TNI Certification #: T104704188-14-8
Utah/TNI Certification #: PA014572015-5
USDA Soil Permit #: P330-14-00213
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Certification
Wyoming Certification #: 8TMS-L

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: AAE0387 Plant Yates

Pace Project No.: 30218704

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30218704001	YGWA-47	Water	05/08/17 12:00	05/12/17 10:20
30218704002	YGWC-44	Water	05/08/17 13:35	05/12/17 10:20
30218704003	YGWC-46	Water	05/08/17 15:05	05/12/17 10:20
30218704004	YGWC-36	Water	05/09/17 11:55	05/12/17 10:20
30218704005	YGWC-49	Water	05/09/17 13:20	05/12/17 10:20
30218704006	YGWC-45	Water	05/09/17 15:25	05/12/17 10:20
30218704007	Dup-1	Water	05/09/17 00:00	05/12/17 10:20
30218704008	YGWC-42	Water	05/10/17 12:05	05/12/17 10:20
30218704009	YGWC-43	Water	05/10/17 10:15	05/12/17 10:20
30218704010	EB-1-5-10-17	Water	05/10/17 11:50	05/12/17 10:20
30218704011	FB-1-5-9-17	Water	05/09/17 10:25	05/12/17 10:20

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: AAE0387 Plant Yates
Pace Project No.: 30218704

Lab ID	Sample ID	Method	Analysts	Analytes Reported
30218704001	YGWA-47	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30218704002	YGWC-44	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30218704003	YGWC-46	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30218704004	YGWC-36	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30218704005	YGWC-49	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30218704006	YGWC-45	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30218704007	Dup-1	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30218704008	YGWC-42	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30218704009	YGWC-43	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30218704010	EB-1-5-10-17	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30218704011	FB-1-5-9-17	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AAE0387 Plant Yates

Pace Project No.: 30218704

Sample: YGWA-47		Lab ID: 30218704001	Collected: 05/08/17 12:00	Received: 05/12/17 10:20	Matrix: Water		
PWS:		Site ID:	Sample Type:				
Parameters	Method	Act ± Unc (MDC) Carr Trac		Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.120 ± 0.108 (0.206)		pCi/L	05/26/17 08:24	13982-63-3	
		C:86% T:NA					
Radium-228	EPA 9320	0.335 ± 0.334 (0.688)		pCi/L	05/31/17 15:31	15262-20-1	
		C:81% T:85%					
Total Radium	Total Radium Calculation	0.455 ± 0.442 (0.894)		pCi/L	06/05/17 14:39	7440-14-4	

Sample: YGWC-44		Lab ID: 30218704002	Collected: 05/08/17 13:35	Received: 05/12/17 10:20	Matrix: Water		
PWS:		Site ID:	Sample Type:				
Parameters	Method	Act ± Unc (MDC) Carr Trac		Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.118 ± 0.108 (0.208)		pCi/L	05/26/17 08:24	13982-63-3	
		C:86% T:NA					
Radium-228	EPA 9320	0.390 ± 0.399 (0.826)		pCi/L	05/31/17 15:31	15262-20-1	
		C:79% T:79%					
Total Radium	Total Radium Calculation	0.508 ± 0.507 (1.03)		pCi/L	06/05/17 14:39	7440-14-4	

Sample: YGWC-46		Lab ID: 30218704003	Collected: 05/08/17 15:05	Received: 05/12/17 10:20	Matrix: Water		
PWS:		Site ID:	Sample Type:				
Parameters	Method	Act ± Unc (MDC) Carr Trac		Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.422 ± 0.168 (0.171)		pCi/L	05/26/17 08:22	13982-63-3	
		C:88% T:NA					
Radium-228	EPA 9320	0.529 ± 0.366 (0.709)		pCi/L	05/31/17 15:31	15262-20-1	
		C:78% T:88%					
Total Radium	Total Radium Calculation	0.949 ± 0.534 (0.880)		pCi/L	06/05/17 14:39	7440-14-4	

Sample: YGWC-36		Lab ID: 30218704004	Collected: 05/09/17 11:55	Received: 05/12/17 10:20	Matrix: Water		
PWS:		Site ID:	Sample Type:				
Parameters	Method	Act ± Unc (MDC) Carr Trac		Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.148 ± 0.101 (0.156)		pCi/L	05/26/17 08:22	13982-63-3	
		C:98% T:NA					
Radium-228	EPA 9320	0.161 ± 0.433 (0.962)		pCi/L	05/31/17 15:31	15262-20-1	
		C:79% T:82%					
Total Radium	Total Radium Calculation	0.309 ± 0.534 (1.12)		pCi/L	06/05/17 14:39	7440-14-4	

Sample: YGWC-49		Lab ID: 30218704005	Collected: 05/09/17 13:20	Received: 05/12/17 10:20	Matrix: Water		
PWS:		Site ID:	Sample Type:				
Parameters	Method	Act ± Unc (MDC) Carr Trac		Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.217 ± 0.131 (0.198)		pCi/L	05/26/17 08:22	13982-63-3	
		C:90% T:NA					
Radium-228	EPA 9320	0.302 ± 0.371 (0.786)		pCi/L	05/31/17 15:31	15262-20-1	
		C:79% T:77%					

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AAE0387 Plant Yates
Pace Project No.: 30218704

Sample: YGWC-49		Lab ID: 30218704005	Collected: 05/09/17 13:20	Received: 05/12/17 10:20	Matrix: Water	
PWS:		Site ID:	Sample Type:			
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Total Radium	Total Radium Calculation	0.519 ± 0.502 (0.984)	pCi/L	06/05/17 14:39	7440-14-4	

Sample: YGWC-45		Lab ID: 30218704006	Collected: 05/09/17 15:25	Received: 05/12/17 10:20	Matrix: Water	
PWS:		Site ID:	Sample Type:			
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	1.00 ± 0.308 (0.228) C:90% T:NA	pCi/L	05/22/17 09:24	13982-63-3	
Radium-228	EPA 9320	0.403 ± 0.350 (0.707) C:79% T:87%	pCi/L	05/31/17 15:31	15262-20-1	
Total Radium	Total Radium Calculation	1.40 ± 0.658 (0.935)	pCi/L	06/05/17 14:39	7440-14-4	

Sample: Dup-1		Lab ID: 30218704007	Collected: 05/09/17 00:00	Received: 05/12/17 10:20	Matrix: Water	
PWS:		Site ID:	Sample Type:			
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.0851 ± 0.134 (0.297) C:87% T:NA	pCi/L	05/22/17 09:24	13982-63-3	
Radium-228	EPA 9320	0.479 ± 0.376 (0.745) C:75% T:85%	pCi/L	05/31/17 15:31	15262-20-1	
Total Radium	Total Radium Calculation	0.564 ± 0.510 (1.04)	pCi/L	06/05/17 14:39	7440-14-4	

Sample: YGWC-42		Lab ID: 30218704008	Collected: 05/10/17 12:05	Received: 05/12/17 10:20	Matrix: Water	
PWS:		Site ID:	Sample Type:			
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	1.87 ± 0.459 (0.296) C:88% T:NA	pCi/L	05/22/17 09:24	13982-63-3	
Radium-228	EPA 9320	0.676 ± 0.370 (0.668) C:80% T:89%	pCi/L	05/31/17 15:32	15262-20-1	
Total Radium	Total Radium Calculation	2.55 ± 0.829 (0.964)	pCi/L	06/05/17 14:39	7440-14-4	

Sample: YGWC-43		Lab ID: 30218704009	Collected: 05/10/17 10:15	Received: 05/12/17 10:20	Matrix: Water	
PWS:		Site ID:	Sample Type:			
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.537 ± 0.248 (0.313) C:76% T:NA	pCi/L	05/22/17 09:24	13982-63-3	
Radium-228	EPA 9320	0.735 ± 0.372 (0.641) C:82% T:82%	pCi/L	05/31/17 15:32	15262-20-1	
Total Radium	Total Radium Calculation	1.27 ± 0.620 (0.954)	pCi/L	06/05/17 14:39	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AAE0387 Plant Yates

Pace Project No.: 30218704

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Sample: EB-1-5-10-17 Lab ID: 30218704010 Collected: 05/10/17 11:50 Received: 05/12/17 10:20 Matrix: Water						
PWS: Site ID: Sample Type:						
Radium-226	EPA 9315	-0.0108 ± 0.0858 (0.256) C:83% T:NA	pCi/L	05/22/17 09:24	13982-63-3	
Radium-228	EPA 9320	0.314 ± 0.372 (0.786) C:82% T:83%	pCi/L	05/31/17 15:32	15262-20-1	
Total Radium	Total Radium Calculation	0.314 ± 0.458 (1.04)	pCi/L	06/05/17 14:39	7440-14-4	

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Sample: FB-1-5-9-17 Lab ID: 30218704011 Collected: 05/09/17 10:25 Received: 05/12/17 10:20 Matrix: Water						
PWS: Site ID: Sample Type:						
Radium-226	EPA 9315	0.140 ± 0.140 (0.272) C:86% T:NA	pCi/L	05/22/17 09:24	13982-63-3	
Radium-228	EPA 9320	0.255 ± 0.381 (0.823) C:93% T:76%	pCi/L	06/02/17 16:28	15262-20-1	
Total Radium	Total Radium Calculation	0.395 ± 0.521 (1.10)	pCi/L	06/06/17 14:13	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: AAE0387 Plant Yates

Pace Project No.: 30218704

QC Batch:	258875	Analysis Method:	EPA 9320
QC Batch Method:	EPA 9320	Analysis Description:	9320 Radium 228
Associated Lab Samples:	30218704001, 30218704002, 30218704003, 30218704004, 30218704005, 30218704006, 30218704007, 30218704008, 30218704009, 30218704010		

METHOD BLANK:	1275038	Matrix:	Water
Associated Lab Samples:	30218704001, 30218704002, 30218704003, 30218704004, 30218704005, 30218704006, 30218704007, 30218704008, 30218704009, 30218704010		

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.621 ± 0.402 (0.762) C:76% T:80%	pCi/L	05/31/17 11:47	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: AAE0387 Plant Yates

Pace Project No.: 30218704

QC Batch: 258733

Analysis Method: EPA 9315

QC Batch Method: EPA 9315

Analysis Description: 9315 Total Radium

Associated Lab Samples: 30218704006, 30218704007, 30218704008, 30218704009, 30218704010, 30218704011

METHOD BLANK: 1274461

Matrix: Water

Associated Lab Samples: 30218704006, 30218704007, 30218704008, 30218704009, 30218704010, 30218704011

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.00989 ± 0.108 (0.288) C:89% T:NA	pCi/L	05/22/17 09:24	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: AAE0387 Plant Yates

Pace Project No.: 30218704

QC Batch: 259469

Analysis Method: EPA 9320

QC Batch Method: EPA 9320

Analysis Description: 9320 Radium 228

Associated Lab Samples: 30218704011

METHOD BLANK: 1278134

Matrix: Water

Associated Lab Samples: 30218704011

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.550 ± 0.338 (0.616) C:94% T:73%	pCi/L	06/02/17 16:30	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: AAE0387 Plant Yates

Pace Project No.: 30218704

QC Batch: 258653

Analysis Method: EPA 9315

QC Batch Method: EPA 9315

Analysis Description: 9315 Total Radium

Associated Lab Samples: 30218704001, 30218704002, 30218704003, 30218704004, 30218704005

METHOD BLANK: 1274144

Matrix: Water

Associated Lab Samples: 30218704001, 30218704002, 30218704003, 30218704004, 30218704005

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0369 ± 0.0667 (0.151) C:89% T:NA	pCi/L	05/26/17 08:31	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: AAE0387 Plant Yates
Pace Project No.: 30218704

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval).

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

REPORT OF LABORATORY ANALYSIS

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30218704

Chain of Custody



Workorder: AAE0387
 Results Requested By: 6/5/2017

Owner Received Date:

Workorder Name: Plant Yates

Report To:

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers	CONH	Matrix	LAB USE ONLY
1	YGWA-47	G	5/8/2017 12:00	AAE0387-01	GW	2	2	GW	001
2	YGWC-44	G	5/8/2017 13:35	AAE0387-02	GW	2	2	GW	002
3	YGWC-46	G	5/8/2017 15:05	AAE0387-03	GW	2	2	GW	003
4	YGWC-36	G	5/9/2017 11:55	AAE0387-04	GW	2	2	GW	004
5	YGWC-49	G	5/9/2017 13:20	AAE0387-05	GW	2	2	GW	005
6	YGWC-45	G	5/9/2017 15:25	AAE0387-06	GW	2	2	GW	006
7	Dup-1	G	5/9/2017 0:00	AAE0387-07	GW	2	2	GW	007
8	YGWC-42	G	5/10/2017 12:05	AAE0387-08	GW	2	2	GW	008
9	YGWC-43	G	5/10/2017 10:15	AAE0387-09	GW	2	2	GW	009
10	EB-1-5-10-17	G	5/10/2017 11:50	AAE0387-10	W	2	2	W	010
Transfers Released By: M. RATTMAN									
Date/Time Received By: 5/11/17									
Date/Time Received By: 5-12-17 1020									
Comments									

WO#: 30218704



Requested Analysis

Radium 226, 228, Total

Cooler Temperature on Receipt: N/A °C

Custody Seal Y or N: N

Received on Ice Y or N: N

Sample Intact Y or N: N

***In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC. This chain of custody is considered complete as is since this information is available in the owner laboratory.

Friday, June 17, 2016 11:01:34 AM

FMT-ALL-C-002 rev.00 24March2009

Page 1 of 2

Chain of Custody



Workorder: AAE0387
 Report To: Betsy McDaniel
 Pace Analytical Atlanta
 110 Technology Parkway
 Peachtree Corners, GA 30092
 Phone (770)-734-4200

Workorder Name: Plant Yates
 Subcontract To: Pace - Pittsburgh
 1638 Roseytown Road
 Stes. 2,3,4
 Greensburg, PA 15601
 Phone (724) 850-5600

Owner Received Date: Results Requested By: 6/5/2017

Item Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers		Date/Time	Comments
					EO	NH		
11	G	5/9/2017 10:25	AAE0387-01	W		2		
12								
13								
14								
15								
16								
17								
18								
19								
20								
Transfers								
1	Released By		Date/Time	Received By	Date/Time	Comments		
2	M. RAHMAN		5/11/17	Pace	5/12/17 10:28			
3								

LAB USE ONLY
 C 11

Received on Ice Y or N
 Custody Seal Y or N

*** In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC
 This chain of custody is considered complete as is since this information is available in the owner laboratory.

30218704

PAGE: 1 OF 1

Pace Analytical Services, Inc.
110 TECHNOLOGY PARKWAY, PEACHTREE CORNERS, GA 30092
(770) 734-4200 : FAX (770) 734-4201 : www.asi-lab.com

CHAIN OF CUSTODY RECORD

CLIENT NAME: Georgia Power
CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER: 241 Ralph McGill Blvd SE B10185 Atlanta, GA 30308 404-506-7239
REPORT TO: Lauren Pety
CC: Maria Padilla, Heath McCorkle
REQUESTED COMPLETION DATE: PO #: laburch@southerncco.com
PROJECT NAME/STATE: Plant Yates Phase II Facilities
PROJECT #: Phase 2 CCR

Collection DATE	Collection TIME	MATRIX CODE	SAMPLE IDENTIFICATION	ANALYSIS REQUESTED				CONTAINER TYPE	PRESERVATION	# of CONTAINERS	RELINQUISHED BY:	DATE/TIME:	RELINQUISHED BY:	DATE/TIME:
				P	P	P	P							
5/8/17	1200	GW	Y6WCA-47	1	1	2			4		5/11/17		5/11/17	
5/8/17	1335	GW	Y6WCC-44	1	1	2			4					
5/8/17	1505	GW	Y6WCC-46	1	1	2			4					
5/9/17	1155	AW	Y6WCC-36	1	1	2			4					
5/9/17	1320	GW	Y6WCC-49	1	1	2			4					
5/9/17	1525	GW	Y6WCC-45	1	1	2			4					
5/9/17		GW	DUP-1	1	1	2			4					
5/10/17	1205	GW	Y6WCC-42	1	1	2			4					
5/10/17	1015	GW	Y6WCC-43	1	1	2			4					
5/10/17	1150	W	EB-1-5-10-17	1	1	2			4					
5/9/17	1025	W	FB-1-5-9-17	1	1	2			4					

ANALYSIS REQUESTED: Metals App. III & IV (FPA 6020/7470), G.F. SO₄ & TDS (FPA 300.0 & SM 2540C), Radium 226 & 228 (SM-R46 9315/9320)

CONTAINER TYPE: P - PLASTIC, A - AMBER GLASS, G - CLEAR GLASS, V - VOA VIAL, S - STERILE, O - OTHER
PRESERVATION: 1 - HCl, 56°C, 2 - H₂SO₄, 56°C, 3 - HNO₃, 4 - NaOH, 56°C, 5 - NaOH/IZnAc, 58°C, 6 - Na₂S₂O₃, 56°C, 7 - 56°C not frozen

MATRIX CODES: DW - DRINKING WATER, NW - WASTEWATER, GW - GROUNDWATER, SW - SURFACE WATER, ST - STORM WATER, W - WATER, S - SOIL, SL - SLUDGE, SD - SOLID, A - AIR, L - LIQUID, P - PRODUCT

REMARKS/ADDITIONAL INFORMATION:

RELINQUISHED BY: [Signature] DATE/TIME: 5/11/17 1930
RELINQUISHED BY: [Signature] DATE/TIME: 5/11/17 1930

RECEIVED BY: [Signature] DATE/TIME: 5/10/17 0950
RECEIVED BY: [Signature] DATE/TIME: 5/10/17 1148

LAB #: AA 20387
ENTERED INTO LIS: MK
TRACKING #:

FOR LAB USE ONLY:

CLIENT: Georgia Power
COURIER: [Signature]
OTHER FS:

Plant Yates COC Phase II Facilities

RTB

Sample Condition Upon Receipt Pittsburgh



Client Name: Pace, GA

Project # 30218704

Courier: Fed Ex UPS USPS Client Commercial Pace Other _____

Tracking #: 6812 5104 3087

Custody Seal on Cooler/Box Present: yes no Seals intact: yes no

Thermometer Used N/A Type of Ice: Wet Blue None

Cooler Temperature Observed Temp _____ °C Correction Factor: _____ °C Final Temp: _____ °C
Temp should be above freezing to 6°C

Date and Initials of person examining contents: QGR 5-12-17

Comments:	Yes	No	N/A	
Chain of Custody Present:	X			1.
Chain of Custody Filled Out:	X			2.
Chain of Custody Relinquished:	X			3.
Sampler Name & Signature on COC:	X			4.
Sample Labels match COC:	X			5.
-Includes date/time/ID Matrix: <u>WT</u>				
Samples Arrived within Hold Time:	X			6.
Short Hold Time Analysis (<72hr remaining):		X		7.
Rush Turn Around Time Requested:		X		8.
Sufficient Volume:	X			9.
Correct Containers Used:	X			10.
-Pace Containers Used:	X			
Containers Intact:	X			11.
Orthophosphate field filtered			X	12.
Organic Samples checked for dechlorination:			X	13.
Filtered volume received for Dissolved tests			X	14.
All containers have been checked for preservation.	X			15.
All containers needing preservation are found to be in compliance with EPA recommendation.	X			<u>PHL2</u>
exceptions: VOA, coliform, TOC, O&G, Phenolics				Initial when completed: <u>QGR</u> Date/time of preservation: _____ Lot # of added preservative: _____
Headspace in VOA Vials (>6mm):			X	16.
Trip Blank Present:		X		17.
Trip Blank Custody Seals Present		X		
Rad Aqueous Samples Screened > 0.5 mrem/hr		X		Initial when completed: <u>QGR</u> Date: <u>5-12-17</u>

Client Notification/ Resolution:

Person Contacted: _____ Date/Time: _____ Contacted By: _____

Comments/ Resolution: _____

A check in this box indicates that additional information has been stored in ereports.

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

*PM review is documented electronically in LIMS. When the Project Manager closes the SRF Review schedule in LIMS. The review is in the Status section of the Workorder Edit Screen.

Quality Control Sample Performance Assessment



Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-226
Analyst: LAL
Date: 5/22/2017
Worklist: 35680
Matrix: DW

Method Blank Assessment	
MB Sample ID	1274461
MB concentration:	0.010
MB Counting Uncertainty:	0.108
MB MDC:	0.288
MB Numerical Performance Indicator:	0.78
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	
LCS/LCSD (Y or N)?	N
LCS35680	LCSD35680
Count Date:	5/24/2017
Spike ID.:	13-093
Spike Concentration (pCi/mL):	19.848
Volume Used (mL):	0.40
Aliquot Volume (L, g, F):	0.502
Target Conc. (pCi/L, g, F):	15.827
Uncertainty (Calculated):	0.745
Result (pCi/L, g, F):	14.483
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.895
Numerical Performance Indicator:	-2.26
Percent Recovery:	91.51%
Status vs Numerical Indicator:	N/A
Status vs Recovery:	Pass

Duplicate Sample Assessment	
Sample I.D.:	30218862001
Duplicate Sample I.D.:	30218862001DUP
Sample Result Counting Uncertainty (pCi/L, g, F):	0.223
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.195
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.160
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.143
Are sample and/or duplicate results below MDC?	See Below ##
Duplicate Numerical Performance Indicator:	0.510
Duplicate RPD:	32.90%
Duplicate Status vs Numerical Indicator:	N/A
Duplicate Status vs RPD:	Fail***

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

***Batch must be re-prepped due to unacceptable precision.

Sample Matrix Spike Control Assessment	
Sample Collection Date:	
Sample I.D.:	
Sample MS I.D.:	
Sample MSD I.D.:	
Spike I.D.:	
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	
Spike Volume Used in MSD (mL):	
Spike Volume Used in MSD (mL):	
MS Aliquot (L, g, F):	
MS Target Conc.(pCi/L, g, F):	
MSD Aliquot (L, g, F):	
MSD Target Conc. (pCi/L, g, F):	
Spike uncertainty (calculated):	
Sample Result:	
Sample Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Sample Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
MS Numerical Performance Indicator:	
MSD Numerical Performance Indicator:	
MS Percent Recovery:	
MSD Percent Recovery:	
MS Status vs Numerical Indicator:	
MSD Status vs Numerical Indicator:	
MS Status vs Recovery:	
MSD Status vs Recovery:	

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.:	
Sample MS I.D.:	
Sample MSD I.D.:	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Sample Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
Duplicate Numerical Performance Indicator:	
MS/MSD Duplicate RPD:	
MS/MSD Duplicate Status vs Numerical Indicator:	
MS/MSD Duplicate Status vs RPD:	

Handwritten signature

Quality Control Sample Performance Assessment



Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-226
Analyst: LAL
Date: 5/22/2017
Worklist: 35671
Matrix: DW

Method Blank Assessment	
MB Sample ID	1274144
MB concentration:	0.037
MB Counting Uncertainty:	0.066
MB MDC:	0.151
MB Numerical Performance Indicator:	1.09
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	
Count Date:	5/26/2017
Spike I.D.:	13-033
Spike Concentration (pCi/mL):	19.848
Volume Used (mL):	0.40
Aliquot Volume (L, g, F):	0.501
Target Conc. (pCi/L, g, F):	15.854
Uncertainty (Calculated):	0.746
Result (pCi/L, g, F):	13.535
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.772
Numerical Performance Indicator:	-4.23
Percent Recovery:	85.37%
Status vs Numerical Indicator:	N/A
Status vs Recovery:	Pass

Duplicate Sample Assessment	
Sample I.D.:	30218700009
Duplicate Sample I.D.:	30218700009DUP
Sample Result (pCi/L, g, F):	0.165
Sample Duplicate Result (pCi/L, g, F):	0.117
Sample Duplicate Result (pCi/L, g, F):	0.206
Sample Duplicate Result Uncertainty (pCi/L, g, F):	0.112
Ave sample and/or duplicate results below MDC?	See Below ##
Duplicate Numerical Performance Indicator:	-0.498
Duplicate RPD:	22.23%
Duplicate Status vs Numerical Indicator:	N/A
Duplicate Status vs RPD:	Pass

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

Sample Matrix Spike Control Assessment	
Sample Collection Date:	
Sample I.D.:	
Sample MS I.D.:	
Sample MSD I.D.:	
Spike I.D.:	
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	
Spike Volume Used in MS (mL):	
Spike Volume Used in MSD (mL):	
MS Aliquot (L, g, F):	
MS Target Conc.(pCi/L, g, F):	
MSD Aliquot (L, g, F):	
MSD Target Conc. (pCi/L, g, F):	
Spike uncertainty (calculated):	
Sample Result:	
Sample Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
MS Numerical Performance Indicator:	
MSD Numerical Performance Indicator:	
MS Percent Recovery:	
MSD Percent Recovery:	
MS Status vs Numerical Indicator:	
MSD Status vs Numerical Indicator:	
MS Status vs Recovery:	
MSD Status vs Recovery:	

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.:	
Sample MS I.D.:	
Sample MSD I.D.:	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
Duplicate Numerical Performance Indicator:	
MS/MSD Duplicate RPD:	
MS/MSD Duplicate Status vs Numerical Indicator:	
MS/MSD Duplicate Status vs RPD:	

Quality Control Sample Performance Assessment



Analyst **Must Manually Enter All Fields Highlighted in Yellow.**

Test: Ra-228
Analyst: JLW
Date: 5/24/2017
Worklist: 35720
Matrix: DW

Method Blank Assessment	
MB Sample ID	1275038
MB concentration:	0.621
M/B Counting Uncertainty:	0.386
MB MDC:	0.762
MB Numerical Performance Indicator:	3.15
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment		N
		LCS35720
LCS (Y or N)?		
Count Date:	5/31/2017	
Spike I.D.:	17-005	
Spike Concentration (pCi/mL):	24.405	
Volume Used (mL):	0.20	
Aliquot Volume (L, g, F):	0.801	
Target Conc. (pCi/L, g, F):	6.097	
Uncertainty (Calculated):	0.439	
Result (pCi/L, g, F):	4.587	
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.641	
Numerical Performance Indicator:	-3.81	
Percent Recovery:	75.23%	
Status vs Numerical Indicator:	N/A	
Status vs Recovery:	Pass	

Duplicate Sample Assessment		N
		LCS35720
		LCS35720
Enter Duplicate sample IDs if other than LCS/LCSD in the space below.		
Sample I.D.:	30218700009	
Duplicate Sample I.D.:	30218700009DUP	
Sample Result (pCi/L, g, F):	0.493	
Sample Duplicate Result (pCi/L, g, F):	0.348	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.199	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.337	
Are sample and/or duplicate results below MDC?	See Below ##	
Duplicate Numerical Performance Indicator:	1.191	
Duplicate RPD:	85.07%	
Duplicate Status vs Numerical Indicator:	N/A	
Duplicate Status vs RPD:	Fail***	

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

***Batch must be re-prepped due to unacceptable precision.

Handwritten signature and date: 5/24/17

Sample Matrix Spike Control Assessment	
Sample Collection Date:	
Sample I.D.:	
Sample MS I.D.:	
Sample MSD I.D.:	
Spike I.D.:	
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	
Spike Volume Used in MS (mL):	
Spike Volume Used in MSD (mL):	
MS Aliquot (L, g, F):	
MS Target Conc. (pCi/L, g, F):	
MSD Aliquot (L, g, F):	
MSD Target Conc. (pCi/L, g, F):	
Spike uncertainty (calculated):	
Sample Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
MS Numerical Performance Indicator:	
MS Numerical Performance Indicator:	
MS Percent Recovery:	
MSD Percent Recovery:	
MS Status vs Numerical Indicator:	
MSD Status vs Numerical Indicator:	
MS Status vs Recovery:	
MSD Status vs Recovery:	

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.:	
Sample MS I.D.:	
Sample MSD I.D.:	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
Duplicate Numerical Performance Indicator:	
(Based on the Percent Recoveries) MS/MSD Duplicate RPD:	
MS/MSD Duplicate Status vs Numerical Indicator:	
MS/MSD Duplicate Status vs RPD:	

Quality Control Sample Performance Assessment



Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-228
Analyst: JLLW
Date: 5/27/2017
Worklist: 35805
Matrix: DW

Method Blank Assessment	
MB Sample ID	1278134
MB concentration:	0.550
M/B Counting Uncertainty:	0.323
MB MDC:	0.616
MB Numerical Performance Indicator:	3.34
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment		N
LCS/MSD Decay Corrected Spike Concentration (pCi/mL):		LCS/MSD35805
Count Date:	6/2/2017	
Spike I.D.:	17-005	
Spike Concentration (pCi/mL):	24.388	
Volume Used (mL):	0.20	
Aliquot Volume (L, g, F):	0.829	
Target Conc. (pCi/L, g, F):	5.885	
Uncertainty (Calculated):	0.424	
Result (pCi/L, g, F):	6.176	
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.678	
Numerical Performance Indicator:	0.71	
Percent Recovery:	104.93%	
Status vs Numerical Indicator:	N/A	
Status vs Recovery:	Pass	

Duplicate Sample Assessment		N
Enter Duplicate sample IDs if other than LCS/LCSD in the space below.		LCS/MSD35805
Sample I.D.:	30218862001	
Duplicate Sample I.D.:	30218862001DUP	
Sample Result (pCi/L, g, F):	0.669	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.335	
Sample Duplicate Result (pCi/L, g, F):	0.732	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.329	
Are sample and/or duplicate results below MDC?	See Below ##	
Duplicate Numerical Performance Indicator:	-0.265	
Duplicate RPD:	9.05%	
Duplicate Status vs Numerical Indicator:	N/A	
Duplicate Status vs RPD:	Pass	

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

Sample Matrix Spike Control Assessment	
Sample Collection Date:	
Sample I.D.:	
Sample MS I.D.:	
Sample MSD I.D.:	
Spike I.D.:	
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	
Spike Volume Used in MS (mL):	
MS Aliquot (L, g, F):	
MS Target Conc. (pCi/L, g, F):	
MSD Aliquot (L, g, F):	
MSD Target Conc. (pCi/L, g, F):	
Spike uncertainty (calculated):	
Sample Result:	
Sample Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Sample Matrix Spike Duplicate Counting Uncertainty (pCi/L, g, F):	
MS Numerical Performance Indicator:	
MSD Numerical Performance Indicator:	
MS Percent Recovery:	
MSD Percent Recovery:	
MS Status vs Numerical Indicator:	
MSD Status vs Numerical Indicator:	
MS Status vs Recovery:	
MSD Status vs Recovery:	

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.:	
Sample MS I.D.:	
Sample MSD I.D.:	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Sample Matrix Spike Duplicate Counting Uncertainty (pCi/L, g, F):	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
Duplicate Numerical Performance Indicator:	
Duplicate Status vs Numerical Indicator:	
MS/MSD Duplicate Status vs Numerical Indicator:	
MS/MSD Duplicate Status vs RPD:	

Product Name: Low-Flow System

Date: 2017-07-11 13:07:37

Project Information:

Operator Name Ryan Walker
Company Name Atlantic Coast Consulting
Project Name Plant Yates AP - Phase 2 CCR
Site Name Plant Yates - Phase II
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 407447
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED
Tubing Type Poly
Tubing Diameter .375 in
Tubing Length 65 ft

Pump placement from TOC 55 ft

Well Information:

Well ID YGWC-42
Well diameter 2 in
Well Total Depth 60 ft
Screen Length 10 ft
Depth to Water 27.64 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 1.801712 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 37.9 in
Total Volume Pumped 14.25 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	12:45:18	4500.72	19.59	5.50	1802.40	4.98	30.80	0.55	42.63
Last 5	12:50:18	4800.72	19.85	5.48	1823.98	4.83	30.70	0.57	43.05
Last 5	12:55:18	5100.72	19.99	5.47	1837.19	4.45	30.70	0.58	43.09
Last 5	13:00:18	5400.72	19.83	5.46	1838.07	4.24	30.70	0.60	43.13
Last 5	13:05:18	5700.72	19.86	5.45	1858.74	4.02	30.70	0.60	42.97
Variance 0			0.15	-0.01	13.21			0.01	0.04
Variance 1			-0.16	-0.01	0.88			0.02	0.04
Variance 2			0.03	-0.01	20.68			0.00	-0.15

Notes

Sunny 80's. Sampled at 13:10.

Grab Samples

Product Name: Low-Flow System

Date: 2017-07-11 14:51:20

Project Information:

Operator Name Ryan Walker
Company Name Atlantic Coast Consulting
Project Name Plant Yates AP - Phase 2 CCR
Site Name Plant Yates - Phase II
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 407447
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED
Tubing Type Poly
Tubing Diameter .375 in
Tubing Length 85 ft

Pump placement from TOC 85 ft

Well Information:

Well ID YGWC-43
Well diameter 2 in
Well Total Depth 80 ft
Screen Length 10 ft
Depth to Water 14.17 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 2.236085 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 2.76 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	14:29:49	600.24	20.48	6.33	327.95	7.36	14.40	0.27	-61.58
Last 5	14:34:49	900.24	20.17	6.33	333.95	4.71	14.40	0.13	-65.74
Last 5	14:39:49	1200.24	20.06	6.32	336.61	3.91	14.40	0.10	-68.45
Last 5	14:44:49	1500.24	19.88	6.32	336.01	3.81	14.40	0.11	-69.86
Last 5	14:49:49	1800.24	19.79	6.32	337.15	2.86	14.40	0.12	-71.54
Variance 0			-0.11	-0.01	2.66			-0.02	-2.71
Variance 1			-0.17	0.00	-0.60			0.00	-1.40
Variance 2			-0.09	-0.00	1.14			0.01	-1.68

Notes

Sunny 80's. Sampled at 14:50.

Grab Samples



PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Laboratory Report

Prepared For:

**Georgia Power
2480 Maner Road
Atlanta, GA 30339**

Attention: Mr. Joju Abraham

Report Number: AAG0387

July 25, 2017

Project: CCR Event

Project #: Plant Yates

We appreciate the opportunity to provide the analytical support for your project. The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Approved:

A handwritten signature in black ink that reads "Betsy McDaniel" written over a horizontal line.

Project Manager

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All test results relate only to the samples analyzed.



PACE ANALYTICAL SERVICES, LLC.

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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

July 25, 2017

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
YGWA-47	AAG0387-01	Ground Water	07/11/17 10:40	07/14/17 09:20
YGWC-42	AAG0387-02	Ground Water	07/11/17 13:10	07/14/17 09:20
YGWC-43	AAG0387-03	Ground Water	07/11/17 14:50	07/14/17 09:20
Dup-1	AAG0387-04	Ground Water	07/11/17 00:00	07/14/17 09:20
YGWC-36	AAG0387-05	Ground Water	07/13/17 10:40	07/14/17 09:20
YGWC-49	AAG0387-06	Ground Water	07/13/17 12:55	07/14/17 09:20
EB-1-7-13-17	AAG0387-07	Water	07/13/17 13:30	07/14/17 09:20
YGWC-44	AAG0387-08	Ground Water	07/13/17 12:25	07/14/17 09:20
YGWC-45	AAG0387-09	Ground Water	07/13/17 10:35	07/14/17 09:20
YGWC-46	AAG0387-10	Ground Water	07/13/17 14:20	07/14/17 09:20
FB-1-7-13-17	AAG0387-11	Water	07/13/17 14:35	07/14/17 09:20



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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

July 25, 2017

Case Narrative

The Radium analysis by methods EPA 9315/9320 was performed by Pace-Pittsburgh, 1638 Roseytown Road - Suites 2, 3, 4, Greensburg PA 15601. The Pace-Pittsburgh lab contact is Jacquelyn Collins at 724-850-5612.



PACE ANALYTICAL SERVICES, LLC.

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Georgia Power
 2480 Maner Road
 Atlanta GA, 30339

July 25, 2017

Attention: Mr. Joju Abraham

Report No.: AAG0387

Project: CCR Event

Client ID: YGWA-47

Lab Number ID: AAG0387-01

Date/Time Sampled: 7/11/2017 10:40:00AM

Date/Time Received: 7/14/2017 9:20:00AM

Matrix: Ground Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	193	25	10	mg/L	SM 2540 C		1	07/17/17 19:50	07/17/17 19:50	7070376	JPT
Inorganic Anions											
Chloride	5.8	0.25	0.02	mg/L	EPA 300.0		1	07/20/17 16:43	07/21/17 02:06	7070516	RLC
Fluoride	0.07	0.30	0.03	mg/L	EPA 300.0	J	1	07/20/17 16:43	07/21/17 02:06	7070516	RLC
Sulfate	110	10	0.17	mg/L	EPA 300.0		10	07/20/17 16:43	07/23/17 00:01	7070516	RLC
Metals, Total											
Antimony	0.0006	0.0030	0.0006	mg/L	EPA 6020B	J	1	07/20/17 15:35	07/21/17 22:40	7070491	CSW
Arsenic	ND	0.0050	0.0005	mg/L	EPA 6020B		1	07/20/17 15:35	07/21/17 22:40	7070491	CSW
Barium	0.0233	0.0100	0.0004	mg/L	EPA 6020B		1	07/20/17 15:35	07/21/17 22:40	7070491	CSW
Beryllium	ND	0.0030	0.00009	mg/L	EPA 6020B		1	07/20/17 15:35	07/21/17 22:40	7070491	CSW
Boron	0.0131	0.0400	0.0060	mg/L	EPA 6020B	J	1	07/20/17 15:35	07/21/17 22:40	7070491	CSW
Cadmium	ND	0.0010	0.0001	mg/L	EPA 6020B		1	07/20/17 15:35	07/21/17 22:40	7070491	CSW
Calcium	14.3	5.00	2.02	mg/L	EPA 6020B		50	07/20/17 15:35	07/21/17 22:46	7070491	CSW
Chromium	ND	0.0100	0.0005	mg/L	EPA 6020B		1	07/20/17 15:35	07/21/17 22:40	7070491	CSW
Cobalt	0.0096	0.0100	0.0003	mg/L	EPA 6020B	J	1	07/20/17 15:35	07/24/17 14:21	7070491	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	07/20/17 15:35	07/21/17 22:40	7070491	CSW
Molybdenum	ND	0.0100	0.0010	mg/L	EPA 6020B		1	07/20/17 15:35	07/21/17 22:40	7070491	CSW
Selenium	ND	0.0100	0.0018	mg/L	EPA 6020B		1	07/20/17 15:35	07/21/17 22:40	7070491	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	07/20/17 15:35	07/21/17 22:40	7070491	CSW
Lithium	0.0051	0.0500	0.0015	mg/L	EPA 6020B	J	1	07/20/17 15:35	07/21/17 22:40	7070491	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	07/20/17 10:30	07/20/17 16:13	7070380	MTC



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Georgia Power
 2480 Maner Road
 Atlanta GA, 30339

July 25, 2017

Attention: Mr. Joju Abraham

Report No.: AAG0387

Project: CCR Event

Client ID: YGWC-42

Lab Number ID: AAG0387-02

Date/Time Sampled: 7/11/2017 1:10:00PM

Date/Time Received: 7/14/2017 9:20:00AM

Matrix: Ground Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	1800	25	10	mg/L	SM 2540 C		1	07/17/17 19:50	07/17/17 19:50	7070376	JPT
Inorganic Anions											
Chloride	4.7	0.25	0.02	mg/L	EPA 300.0		1	07/20/17 16:43	07/21/17 02:27	7070516	RLC
Fluoride	ND	0.30	0.03	mg/L	EPA 300.0		1	07/20/17 16:43	07/21/17 02:27	7070516	RLC
Sulfate	1300	50	0.85	mg/L	EPA 300.0		50	07/20/17 16:43	07/23/17 00:22	7070516	RLC
Metals, Total											
Antimony	ND	0.0030	0.0006	mg/L	EPA 6020B		1	07/20/17 15:35	07/21/17 23:03	7070491	CSW
Arsenic	0.0030	0.0050	0.0005	mg/L	EPA 6020B	J	1	07/20/17 15:35	07/21/17 23:03	7070491	CSW
Barium	0.0451	0.0100	0.0004	mg/L	EPA 6020B		1	07/20/17 15:35	07/21/17 23:03	7070491	CSW
Beryllium	0.0001	0.0030	0.00009	mg/L	EPA 6020B	J	1	07/20/17 15:35	07/21/17 23:03	7070491	CSW
Boron	25.2	2.00	0.298	mg/L	EPA 6020B		50	07/20/17 15:35	07/21/17 23:09	7070491	CSW
Cadmium	0.0005	0.0010	0.0001	mg/L	EPA 6020B	J	1	07/20/17 15:35	07/21/17 23:03	7070491	CSW
Calcium	172	25.0	2.02	mg/L	EPA 6020B		50	07/20/17 15:35	07/21/17 23:09	7070491	CSW
Chromium	ND	0.0100	0.0005	mg/L	EPA 6020B		1	07/20/17 15:35	07/21/17 23:03	7070491	CSW
Cobalt	0.0014	0.0100	0.0003	mg/L	EPA 6020B	J	1	07/20/17 15:35	07/21/17 23:03	7070491	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	07/20/17 15:35	07/21/17 23:03	7070491	CSW
Molybdenum	0.0014	0.0100	0.0010	mg/L	EPA 6020B	J	1	07/20/17 15:35	07/21/17 23:03	7070491	CSW
Selenium	0.0697	0.0100	0.0018	mg/L	EPA 6020B		1	07/20/17 15:35	07/21/17 23:03	7070491	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	07/20/17 15:35	07/21/17 23:03	7070491	CSW
Lithium	0.0281	0.0500	0.0015	mg/L	EPA 6020B	J	1	07/20/17 15:35	07/21/17 23:03	7070491	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	07/20/17 10:30	07/20/17 16:15	7070380	MTC



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Georgia Power
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 Atlanta GA, 30339

Attention: Mr. Joju Abraham

July 25, 2017

Report No.: AAG0387

Project: CCR Event

Client ID: YGWC-43

Lab Number ID: AAG0387-03

Date/Time Sampled: 7/11/2017 2:50:00PM

Date/Time Received: 7/14/2017 9:20:00AM

Matrix: Ground Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	238	25	10	mg/L	SM 2540 C		1	07/17/17 19:50	07/17/17 19:50	7070376	JPT
Inorganic Anions											
Chloride	1.5	0.25	0.02	mg/L	EPA 300.0		1	07/20/17 16:43	07/21/17 02:48	7070516	RLC
Fluoride	0.20	0.30	0.03	mg/L	EPA 300.0	J	1	07/20/17 16:43	07/21/17 02:48	7070516	RLC
Sulfate	110	10	0.17	mg/L	EPA 300.0		10	07/20/17 16:43	07/23/17 00:43	7070516	RLC
Metals, Total											
Antimony	ND	0.0030	0.0006	mg/L	EPA 6020B		1	07/20/17 15:35	07/21/17 23:14	7070491	CSW
Arsenic	ND	0.0050	0.0005	mg/L	EPA 6020B		1	07/20/17 15:35	07/21/17 23:14	7070491	CSW
Barium	0.0183	0.0100	0.0004	mg/L	EPA 6020B		1	07/20/17 15:35	07/21/17 23:14	7070491	CSW
Beryllium	ND	0.0030	0.00009	mg/L	EPA 6020B		1	07/20/17 15:35	07/21/17 23:14	7070491	CSW
Boron	0.994	0.0400	0.0060	mg/L	EPA 6020B		1	07/20/17 15:35	07/21/17 23:14	7070491	CSW
Cadmium	ND	0.0010	0.0001	mg/L	EPA 6020B		1	07/20/17 15:35	07/21/17 23:14	7070491	CSW
Calcium	6.71	0.500	0.0404	mg/L	EPA 6020B		1	07/20/17 15:35	07/21/17 23:14	7070491	CSW
Chromium	ND	0.0100	0.0005	mg/L	EPA 6020B		1	07/20/17 15:35	07/21/17 23:14	7070491	CSW
Cobalt	ND	0.0100	0.0003	mg/L	EPA 6020B		1	07/20/17 15:35	07/21/17 23:14	7070491	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	07/20/17 15:35	07/21/17 23:14	7070491	CSW
Molybdenum	ND	0.0100	0.0010	mg/L	EPA 6020B		1	07/20/17 15:35	07/21/17 23:14	7070491	CSW
Selenium	ND	0.0100	0.0018	mg/L	EPA 6020B		1	07/20/17 15:35	07/21/17 23:14	7070491	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	07/20/17 15:35	07/21/17 23:14	7070491	CSW
Lithium	0.0131	0.0500	0.0015	mg/L	EPA 6020B	J	1	07/20/17 15:35	07/21/17 23:14	7070491	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	07/20/17 10:30	07/20/17 16:18	7070380	MTC



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Georgia Power
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 Atlanta GA, 30339

July 25, 2017

Attention: Mr. Joju Abraham

Report No.: AAG0387

Project: CCR Event

Client ID: Dup-1

Lab Number ID: AAG0387-04

Date/Time Sampled: 7/11/2017 12:00:00AM

Date/Time Received: 7/14/2017 9:20:00AM

Matrix: Ground Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	1810	25	10	mg/L	SM 2540 C		1	07/17/17 19:50	07/17/17 19:50	7070376	JPT
Inorganic Anions											
Chloride	4.8	0.25	0.02	mg/L	EPA 300.0		1	07/20/17 16:43	07/21/17 03:09	7070516	RLC
Fluoride	ND	0.30	0.03	mg/L	EPA 300.0		1	07/20/17 16:43	07/21/17 03:09	7070516	RLC
Sulfate	1200	50	0.85	mg/L	EPA 300.0		50	07/20/17 16:43	07/23/17 14:42	7070516	RLC
Metals, Total											
Antimony	ND	0.0030	0.0006	mg/L	EPA 6020B		1	07/20/17 15:35	07/21/17 23:26	7070491	CSW
Arsenic	0.0031	0.0050	0.0005	mg/L	EPA 6020B	J	1	07/20/17 15:35	07/21/17 23:26	7070491	CSW
Barium	0.0454	0.0100	0.0004	mg/L	EPA 6020B		1	07/20/17 15:35	07/21/17 23:26	7070491	CSW
Beryllium	0.0001	0.0030	0.00009	mg/L	EPA 6020B	J	1	07/20/17 15:35	07/21/17 23:26	7070491	CSW
Boron	24.6	2.00	0.298	mg/L	EPA 6020B		50	07/20/17 15:35	07/21/17 23:31	7070491	CSW
Cadmium	0.0005	0.0010	0.0001	mg/L	EPA 6020B	J	1	07/20/17 15:35	07/21/17 23:26	7070491	CSW
Calcium	167	25.0	2.02	mg/L	EPA 6020B		50	07/20/17 15:35	07/21/17 23:31	7070491	CSW
Chromium	ND	0.0100	0.0005	mg/L	EPA 6020B		1	07/20/17 15:35	07/21/17 23:26	7070491	CSW
Cobalt	0.0014	0.0100	0.0003	mg/L	EPA 6020B	J	1	07/20/17 15:35	07/21/17 23:26	7070491	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	07/20/17 15:35	07/21/17 23:26	7070491	CSW
Molybdenum	0.0014	0.0100	0.0010	mg/L	EPA 6020B	J	1	07/20/17 15:35	07/21/17 23:26	7070491	CSW
Selenium	0.0700	0.0100	0.0018	mg/L	EPA 6020B		1	07/20/17 15:35	07/21/17 23:26	7070491	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	07/20/17 15:35	07/21/17 23:26	7070491	CSW
Lithium	0.0287	0.0500	0.0015	mg/L	EPA 6020B	J	1	07/20/17 15:35	07/21/17 23:26	7070491	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	07/20/17 10:30	07/20/17 16:20	7070380	MTC



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Environmental Monitoring & Laboratory Analysis
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Georgia Power
 2480 Maner Road
 Atlanta GA, 30339

Attention: Mr. Joju Abraham

July 25, 2017

Report No.: AAG0387

Project: CCR Event

Client ID: YGWC-36

Lab Number ID: AAG0387-05

Date/Time Sampled: 7/13/2017 10:40:00AM

Date/Time Received: 7/14/2017 9:20:00AM

Matrix: Ground Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	282	25	10	mg/L	SM 2540 C		1	07/20/17 18:53	07/20/17 18:53	7070489	JPT
Inorganic Anions											
Chloride	5.4	0.25	0.02	mg/L	EPA 300.0		1	07/20/17 16:43	07/21/17 03:29	7070516	RLC
Fluoride	ND	0.30	0.03	mg/L	EPA 300.0		1	07/20/17 16:43	07/21/17 03:29	7070516	RLC
Sulfate	140	10	0.17	mg/L	EPA 300.0		10	07/20/17 16:43	07/23/17 01:24	7070516	RLC
Metals, Total											
Antimony	ND	0.0030	0.0006	mg/L	EPA 6020B		1	07/20/17 15:35	07/21/17 23:37	7070491	CSW
Arsenic	ND	0.0050	0.0005	mg/L	EPA 6020B		1	07/20/17 15:35	07/21/17 23:37	7070491	CSW
Barium	0.0484	0.0100	0.0004	mg/L	EPA 6020B		1	07/20/17 15:35	07/21/17 23:37	7070491	CSW
Beryllium	0.0003	0.0030	0.00009	mg/L	EPA 6020B	J	1	07/20/17 15:35	07/21/17 23:37	7070491	CSW
Boron	0.262	0.0400	0.0060	mg/L	EPA 6020B		1	07/20/17 15:35	07/21/17 23:37	7070491	CSW
Cadmium	0.0002	0.0010	0.0001	mg/L	EPA 6020B	J	1	07/20/17 15:35	07/21/17 23:37	7070491	CSW
Calcium	16.6	5.00	2.02	mg/L	EPA 6020B		50	07/20/17 15:35	07/21/17 23:43	7070491	CSW
Chromium	ND	0.0100	0.0005	mg/L	EPA 6020B		1	07/20/17 15:35	07/21/17 23:37	7070491	CSW
Cobalt	ND	0.0100	0.0003	mg/L	EPA 6020B		1	07/20/17 15:35	07/21/17 23:37	7070491	CSW
Lead	0.0004	0.0050	0.00007	mg/L	EPA 6020B	J	1	07/20/17 15:35	07/21/17 23:37	7070491	CSW
Molybdenum	0.0014	0.0100	0.0010	mg/L	EPA 6020B	J	1	07/20/17 15:35	07/21/17 23:37	7070491	CSW
Selenium	0.0031	0.0100	0.0018	mg/L	EPA 6020B	J	1	07/20/17 15:35	07/21/17 23:37	7070491	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	07/20/17 15:35	07/21/17 23:37	7070491	CSW
Lithium	0.0070	0.0500	0.0015	mg/L	EPA 6020B	J	1	07/20/17 15:35	07/21/17 23:37	7070491	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	07/20/17 10:30	07/20/17 16:22	7070380	MTC



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Attention: Mr. Joju Abraham

July 25, 2017

Report No.: AAG0387

Project: CCR Event

Client ID: YGWC-49

Lab Number ID: AAG0387-06

Date/Time Sampled: 7/13/2017 12:55:00PM

Date/Time Received: 7/14/2017 9:20:00AM

Matrix: Ground Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	192	25	10	mg/L	SM 2540 C		1	07/20/17 18:53	07/20/17 18:53	7070489	JPT
Inorganic Anions											
Chloride	4.7	0.25	0.02	mg/L	EPA 300.0		1	07/20/17 16:43	07/21/17 04:33	7070516	RLC
Fluoride	ND	0.30	0.03	mg/L	EPA 300.0		1	07/20/17 16:43	07/21/17 04:33	7070516	RLC
Sulfate	88	5.0	0.08	mg/L	EPA 300.0		5	07/20/17 16:43	07/23/17 01:45	7070516	RLC
Metals, Total											
Antimony	ND	0.0030	0.0006	mg/L	EPA 6020B		1	07/20/17 15:35	07/21/17 23:49	7070491	CSW
Arsenic	ND	0.0050	0.0005	mg/L	EPA 6020B		1	07/20/17 15:35	07/21/17 23:49	7070491	CSW
Barium	0.0839	0.0100	0.0004	mg/L	EPA 6020B		1	07/20/17 15:35	07/21/17 23:49	7070491	CSW
Beryllium	0.0001	0.0030	0.00009	mg/L	EPA 6020B	J	1	07/20/17 15:35	07/21/17 23:49	7070491	CSW
Boron	0.0093	0.0400	0.0060	mg/L	EPA 6020B	J	1	07/20/17 15:35	07/21/17 23:49	7070491	CSW
Cadmium	ND	0.0010	0.0001	mg/L	EPA 6020B		1	07/20/17 15:35	07/21/17 23:49	7070491	CSW
Calcium	14.1	5.00	2.02	mg/L	EPA 6020B		50	07/20/17 15:35	07/21/17 23:54	7070491	CSW
Chromium	0.0019	0.0100	0.0005	mg/L	EPA 6020B	J	1	07/20/17 15:35	07/21/17 23:49	7070491	CSW
Cobalt	0.0005	0.0100	0.0003	mg/L	EPA 6020B	J	1	07/20/17 15:35	07/21/17 23:49	7070491	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	07/20/17 15:35	07/21/17 23:49	7070491	CSW
Molybdenum	ND	0.0100	0.0010	mg/L	EPA 6020B		1	07/20/17 15:35	07/21/17 23:49	7070491	CSW
Selenium	0.0093	0.0100	0.0018	mg/L	EPA 6020B	J	1	07/20/17 15:35	07/21/17 23:49	7070491	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	07/20/17 15:35	07/21/17 23:49	7070491	CSW
Lithium	0.0036	0.0500	0.0015	mg/L	EPA 6020B	J	1	07/20/17 15:35	07/21/17 23:49	7070491	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	07/20/17 10:30	07/20/17 16:30	7070380	MTC



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 Atlanta GA, 30339

Attention: Mr. Joju Abraham

July 25, 2017

Report No.: AAG0387

Project: CCR Event

Client ID: EB-1-7-13-17

Lab Number ID: AAG0387-07

Date/Time Sampled: 7/13/2017 1:30:00PM

Date/Time Received: 7/14/2017 9:20:00AM

Matrix: Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	ND	25	10	mg/L	SM 2540 C		1	07/20/17 18:53	07/20/17 18:53	7070489	JPT
Inorganic Anions											
Chloride	0.08	0.25	0.02	mg/L	EPA 300.0	J	1	07/20/17 16:43	07/21/17 04:54	7070516	RLC
Fluoride	ND	0.30	0.03	mg/L	EPA 300.0		1	07/20/17 16:43	07/21/17 04:54	7070516	RLC
Sulfate	0.09	1.0	0.02	mg/L	EPA 300.0	J	1	07/20/17 16:43	07/21/17 04:54	7070516	RLC
Metals, Total											
Antimony	ND	0.0030	0.0006	mg/L	EPA 6020B		1	07/18/17 10:03	07/20/17 18:38	7070414	CSW
Arsenic	ND	0.0050	0.0005	mg/L	EPA 6020B		1	07/18/17 10:03	07/20/17 18:38	7070414	CSW
Barium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	07/18/17 10:03	07/20/17 18:38	7070414	CSW
Beryllium	ND	0.0030	0.00009	mg/L	EPA 6020B		1	07/18/17 10:03	07/20/17 18:38	7070414	CSW
Boron	0.0101	0.0400	0.0060	mg/L	EPA 6020B	J	1	07/18/17 10:03	07/20/17 18:38	7070414	CSW
Cadmium	ND	0.0010	0.0001	mg/L	EPA 6020B		1	07/18/17 10:03	07/20/17 18:38	7070414	CSW
Calcium	ND	0.500	0.0404	mg/L	EPA 6020B		1	07/18/17 10:03	07/20/17 18:38	7070414	CSW
Chromium	ND	0.0100	0.0005	mg/L	EPA 6020B		1	07/18/17 10:03	07/20/17 18:38	7070414	CSW
Cobalt	ND	0.0100	0.0003	mg/L	EPA 6020B		1	07/18/17 10:03	07/20/17 18:38	7070414	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	07/18/17 10:03	07/20/17 18:38	7070414	CSW
Molybdenum	ND	0.0100	0.0010	mg/L	EPA 6020B		1	07/18/17 10:03	07/20/17 18:38	7070414	CSW
Selenium	ND	0.0100	0.0018	mg/L	EPA 6020B		1	07/18/17 10:03	07/20/17 18:38	7070414	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	07/18/17 10:03	07/20/17 18:38	7070414	CSW
Lithium	ND	0.0500	0.0015	mg/L	EPA 6020B		1	07/18/17 10:03	07/20/17 18:38	7070414	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	07/20/17 10:30	07/20/17 16:32	7070380	MTC



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 Atlanta GA, 30339

July 25, 2017

Attention: Mr. Joju Abraham

Report No.: AAG0387

Project: CCR Event

Client ID: YGWC-44

Lab Number ID: AAG0387-08

Date/Time Sampled: 7/13/2017 12:25:00PM

Date/Time Received: 7/14/2017 9:20:00AM

Matrix: Ground Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	345	25	10	mg/L	SM 2540 C		1	07/20/17 18:53	07/20/17 18:53	7070489	JPT
Inorganic Anions											
Chloride	13	0.25	0.02	mg/L	EPA 300.0		1	07/20/17 16:43	07/21/17 05:15	7070516	RLC
Fluoride	ND	0.30	0.03	mg/L	EPA 300.0		1	07/20/17 16:43	07/21/17 05:15	7070516	RLC
Sulfate	150	5.0	0.08	mg/L	EPA 300.0		5	07/20/17 16:43	07/23/17 02:05	7070516	RLC
Metals, Total											
Antimony	ND	0.0030	0.0006	mg/L	EPA 6020B		1	07/18/17 10:03	07/20/17 19:11	7070414	CSW
Arsenic	ND	0.0050	0.0005	mg/L	EPA 6020B		1	07/18/17 10:03	07/20/17 19:11	7070414	CSW
Barium	0.106	0.0100	0.0004	mg/L	EPA 6020B		1	07/18/17 10:03	07/20/17 19:11	7070414	CSW
Beryllium	ND	0.0030	0.00009	mg/L	EPA 6020B		1	07/18/17 10:03	07/20/17 19:11	7070414	CSW
Boron	0.649	0.0400	0.0060	mg/L	EPA 6020B		1	07/18/17 10:03	07/20/17 19:11	7070414	CSW
Cadmium	ND	0.0010	0.0001	mg/L	EPA 6020B		1	07/18/17 10:03	07/20/17 19:11	7070414	CSW
Calcium	30.2	25.0	2.02	mg/L	EPA 6020B		50	07/18/17 10:03	07/20/17 19:16	7070414	CSW
Chromium	ND	0.0100	0.0005	mg/L	EPA 6020B		1	07/18/17 10:03	07/20/17 19:11	7070414	CSW
Cobalt	0.0022	0.0100	0.0003	mg/L	EPA 6020B	J	1	07/18/17 10:03	07/20/17 19:11	7070414	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	07/18/17 10:03	07/20/17 19:11	7070414	CSW
Molybdenum	ND	0.0100	0.0010	mg/L	EPA 6020B		1	07/18/17 10:03	07/20/17 19:11	7070414	CSW
Selenium	ND	0.0100	0.0018	mg/L	EPA 6020B		1	07/18/17 10:03	07/20/17 19:11	7070414	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	07/18/17 10:03	07/20/17 19:11	7070414	CSW
Lithium	0.0124	0.0500	0.0015	mg/L	EPA 6020B	J	1	07/18/17 10:03	07/20/17 19:11	7070414	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	07/20/17 10:30	07/20/17 16:34	7070380	MTC



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Georgia Power
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 Atlanta GA, 30339

July 25, 2017

Attention: Mr. Joju Abraham

Report No.: AAG0387

Project: CCR Event

Client ID: YGWC-45

Lab Number ID: AAG0387-09

Date/Time Sampled: 7/13/2017 10:35:00AM

Date/Time Received: 7/14/2017 9:20:00AM

Matrix: Ground Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	433	25	10	mg/L	SM 2540 C		1	07/20/17 18:53	07/20/17 18:53	7070489	JPT
Inorganic Anions											
Chloride	4.7	0.25	0.02	mg/L	EPA 300.0		1	07/20/17 16:43	07/21/17 06:40	7070516	RLC
Fluoride	0.11	0.30	0.03	mg/L	EPA 300.0	J	1	07/20/17 16:43	07/21/17 06:40	7070516	RLC
Sulfate	180	5.0	0.08	mg/L	EPA 300.0		5	07/20/17 16:43	07/23/17 02:26	7070516	RLC
Metals, Total											
Antimony	ND	0.0030	0.0006	mg/L	EPA 6020B		1	07/18/17 10:03	07/20/17 19:22	7070414	CSW
Arsenic	ND	0.0050	0.0005	mg/L	EPA 6020B		1	07/18/17 10:03	07/20/17 19:22	7070414	CSW
Barium	0.0719	0.0100	0.0004	mg/L	EPA 6020B		1	07/18/17 10:03	07/20/17 19:22	7070414	CSW
Beryllium	ND	0.0030	0.00009	mg/L	EPA 6020B		1	07/18/17 10:03	07/20/17 19:22	7070414	CSW
Boron	0.340	0.0400	0.0060	mg/L	EPA 6020B		1	07/18/17 10:03	07/20/17 19:22	7070414	CSW
Cadmium	ND	0.0010	0.0001	mg/L	EPA 6020B		1	07/18/17 10:03	07/20/17 19:22	7070414	CSW
Calcium	54.8	25.0	2.02	mg/L	EPA 6020B		50	07/18/17 10:03	07/20/17 19:28	7070414	CSW
Chromium	0.0006	0.0100	0.0005	mg/L	EPA 6020B	J	1	07/18/17 10:03	07/20/17 19:22	7070414	CSW
Cobalt	0.0009	0.0100	0.0003	mg/L	EPA 6020B	J	1	07/18/17 10:03	07/20/17 19:22	7070414	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	07/18/17 10:03	07/20/17 19:22	7070414	CSW
Molybdenum	0.0015	0.0100	0.0010	mg/L	EPA 6020B	J	1	07/18/17 10:03	07/20/17 19:22	7070414	CSW
Selenium	ND	0.0100	0.0018	mg/L	EPA 6020B		1	07/18/17 10:03	07/20/17 19:22	7070414	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	07/18/17 10:03	07/20/17 19:22	7070414	CSW
Lithium	0.0129	0.0500	0.0015	mg/L	EPA 6020B	J	1	07/18/17 10:03	07/20/17 19:22	7070414	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	07/20/17 10:30	07/20/17 16:37	7070380	MTC



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 Atlanta GA, 30339

July 25, 2017

Attention: Mr. Joju Abraham

Report No.: AAG0387

Project: CCR Event

Client ID: YGWC-46

Lab Number ID: AAG0387-10

Date/Time Sampled: 7/13/2017 2:20:00PM

Date/Time Received: 7/14/2017 9:20:00AM

Matrix: Ground Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	996	25	10	mg/L	SM 2540 C		1	07/20/17 18:53	07/20/17 18:53	7070489	JPT
Inorganic Anions											
Chloride	32	0.25	0.02	mg/L	EPA 300.0		1	07/20/17 16:43	07/21/17 07:02	7070516	RLC
Fluoride	0.35	0.30	0.03	mg/L	EPA 300.0		1	07/20/17 16:43	07/21/17 07:02	7070516	RLC
Sulfate	630	20	0.34	mg/L	EPA 300.0		20	07/20/17 16:43	07/23/17 14:22	7070516	RLC
Metals, Total											
Antimony	ND	0.0030	0.0006	mg/L	EPA 6020B		1	07/18/17 10:03	07/20/17 19:33	7070414	CSW
Arsenic	0.0011	0.0050	0.0005	mg/L	EPA 6020B	J	1	07/18/17 10:03	07/20/17 19:33	7070414	CSW
Barium	0.0365	0.0100	0.0004	mg/L	EPA 6020B		1	07/18/17 10:03	07/20/17 19:33	7070414	CSW
Beryllium	ND	0.0030	0.00009	mg/L	EPA 6020B		1	07/18/17 10:03	07/20/17 19:33	7070414	CSW
Boron	1.62	0.0400	0.0060	mg/L	EPA 6020B		1	07/18/17 10:03	07/20/17 19:33	7070414	CSW
Cadmium	ND	0.0010	0.0001	mg/L	EPA 6020B		1	07/18/17 10:03	07/20/17 19:33	7070414	CSW
Calcium	83.7	25.0	2.02	mg/L	EPA 6020B		50	07/18/17 10:03	07/20/17 19:39	7070414	CSW
Chromium	ND	0.0100	0.0005	mg/L	EPA 6020B		1	07/18/17 10:03	07/20/17 19:33	7070414	CSW
Cobalt	0.0265	0.0100	0.0003	mg/L	EPA 6020B		1	07/18/17 10:03	07/20/17 19:33	7070414	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	07/18/17 10:03	07/20/17 19:33	7070414	CSW
Molybdenum	0.0015	0.0100	0.0010	mg/L	EPA 6020B	J	1	07/18/17 10:03	07/20/17 19:33	7070414	CSW
Selenium	ND	0.0100	0.0018	mg/L	EPA 6020B		1	07/18/17 10:03	07/20/17 19:33	7070414	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	07/18/17 10:03	07/20/17 19:33	7070414	CSW
Lithium	0.0104	0.0500	0.0015	mg/L	EPA 6020B	J	1	07/18/17 10:03	07/20/17 19:33	7070414	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	07/20/17 10:30	07/20/17 16:39	7070380	MTC



PACE ANALYTICAL SERVICES, LLC.

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 Atlanta GA, 30339

July 25, 2017

Attention: Mr. Joju Abraham

Report No.: AAG0387

Project: CCR Event

Client ID: FB-1-7-13-17

Lab Number ID: AAG0387-11

Date/Time Sampled: 7/13/2017 2:35:00PM

Date/Time Received: 7/14/2017 9:20:00AM

Matrix: Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	ND	25	10	mg/L	SM 2540 C		1	07/20/17 18:53	07/20/17 18:53	7070489	JPT
Inorganic Anions											
Chloride	0.08	0.25	0.02	mg/L	EPA 300.0	J	1	07/20/17 16:43	07/21/17 07:23	7070516	RLC
Fluoride	ND	0.30	0.03	mg/L	EPA 300.0		1	07/20/17 16:43	07/21/17 07:23	7070516	RLC
Sulfate	0.28	1.0	0.02	mg/L	EPA 300.0	J	1	07/20/17 16:43	07/21/17 07:23	7070516	RLC
Metals, Total											
Antimony	ND	0.0030	0.0006	mg/L	EPA 6020B		1	07/18/17 10:03	07/20/17 19:45	7070414	CSW
Arsenic	ND	0.0050	0.0005	mg/L	EPA 6020B		1	07/18/17 10:03	07/20/17 19:45	7070414	CSW
Barium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	07/18/17 10:03	07/20/17 19:45	7070414	CSW
Beryllium	ND	0.0030	0.00009	mg/L	EPA 6020B		1	07/18/17 10:03	07/20/17 19:45	7070414	CSW
Boron	0.0061	0.0400	0.0060	mg/L	EPA 6020B	J	1	07/18/17 10:03	07/20/17 19:45	7070414	CSW
Cadmium	ND	0.0010	0.0001	mg/L	EPA 6020B		1	07/18/17 10:03	07/20/17 19:45	7070414	CSW
Calcium	ND	0.500	0.0404	mg/L	EPA 6020B		1	07/18/17 10:03	07/20/17 19:45	7070414	CSW
Chromium	ND	0.0100	0.0005	mg/L	EPA 6020B		1	07/18/17 10:03	07/20/17 19:45	7070414	CSW
Cobalt	ND	0.0100	0.0003	mg/L	EPA 6020B		1	07/18/17 10:03	07/20/17 19:45	7070414	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	07/18/17 10:03	07/20/17 19:45	7070414	CSW
Molybdenum	ND	0.0100	0.0010	mg/L	EPA 6020B		1	07/18/17 10:03	07/20/17 19:45	7070414	CSW
Selenium	ND	0.0100	0.0018	mg/L	EPA 6020B		1	07/18/17 10:03	07/20/17 19:45	7070414	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	07/18/17 10:03	07/20/17 19:45	7070414	CSW
Lithium	ND	0.0500	0.0015	mg/L	EPA 6020B		1	07/18/17 10:03	07/20/17 19:45	7070414	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	07/20/17 10:30	07/20/17 16:41	7070380	MTC



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Georgia Power
 2480 Maner Road
 Atlanta GA, 30339

Attention: Mr. Joju Abraham

July 25, 2017

Report No.: AAG0387

General Chemistry - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7070376 - SM 2540 C											
Blank (7070376-BLK1)						Prepared & Analyzed: 07/17/17					
Total Dissolved Solids	ND	25	10	mg/L							
LCS (7070376-BS1)						Prepared & Analyzed: 07/17/17					
Total Dissolved Solids	340	25	10	mg/L	400.00		85	84-108			
Duplicate (7070376-DUP1)						Source: AAG0277-09 Prepared & Analyzed: 07/17/17					
Total Dissolved Solids	ND	25	10	mg/L		ND				10	
Duplicate (7070376-DUP2)						Source: AAG0387-03 Prepared & Analyzed: 07/17/17					
Total Dissolved Solids	236	25	10	mg/L		238			0.8	10	
Batch 7070489 - SM 2540 C											
Blank (7070489-BLK1)						Prepared & Analyzed: 07/20/17					
Total Dissolved Solids	ND	25	10	mg/L							
LCS (7070489-BS1)						Prepared & Analyzed: 07/20/17					
Total Dissolved Solids	406	25	10	mg/L	400.00		102	84-108			
Duplicate (7070489-DUP1)						Source: AAG0383-14 Prepared & Analyzed: 07/20/17					
Total Dissolved Solids	2280	25	10	mg/L		2280			0.2	10	
Duplicate (7070489-DUP2)						Source: AAG0387-07 Prepared & Analyzed: 07/20/17					
Total Dissolved Solids	ND	25	10	mg/L		ND				10	



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July 25, 2017

Report No.: AAG0387

Inorganic Anions - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7070516 - EPA 300.0											
Blank (7070516-BLK1)						Prepared: 07/20/17 Analyzed: 07/21/17					
Chloride	ND	0.25	0.02	mg/L							
Fluoride	ND	0.30	0.03	mg/L							
Sulfate	ND	1.0	0.02	mg/L							
LCS (7070516-BS1)						Prepared: 07/20/17 Analyzed: 07/21/17					
Chloride	10.4	0.25	0.02	mg/L	10.020		103	90-110			
Fluoride	10.3	0.30	0.03	mg/L	10.020		103	90-110			
Sulfate	10.5	1.0	0.02	mg/L	10.050		104	90-110			
Matrix Spike (7070516-MS1)						Source: AAG0387-05 Prepared: 07/20/17 Analyzed: 07/21/17					
Chloride	15.4	0.25	0.02	mg/L	10.020	5.39	100	90-110			
Fluoride	10.3	0.30	0.03	mg/L	10.020	ND	102	90-110			
Sulfate	125	1.0	0.02	mg/L	10.050	129	NR	90-110			QM-02
Matrix Spike (7070516-MS2)						Source: AAG0388-05 Prepared: 07/20/17 Analyzed: 07/21/17					
Chloride	30.0	0.25	0.02	mg/L	10.020	21.2	87	90-110			QM-02
Fluoride	12.0	0.30	0.03	mg/L	10.020	0.20	117	90-110			QM-05
Sulfate	170	1.0	0.02	mg/L	10.050	178	NR	90-110			QM-02
Matrix Spike Dup (7070516-MSD1)						Source: AAG0387-05 Prepared: 07/20/17 Analyzed: 07/21/17					
Chloride	15.4	0.25	0.02	mg/L	10.020	5.39	100	90-110	0.2	15	
Fluoride	10.1	0.30	0.03	mg/L	10.020	ND	101	90-110	1	15	
Sulfate	125	1.0	0.02	mg/L	10.050	129	NR	90-110	0.3	15	QM-02



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Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7070380 - EPA 7470A											
Blank (7070380-BLK1) Prepared & Analyzed: 07/20/17											
Mercury	ND	0.00050	0.000041	mg/L							
LCS (7070380-BS1) Prepared & Analyzed: 07/20/17											
Mercury	0.00239	0.00050	0.000041	mg/L	2.5000E-3		95	80-120			
Matrix Spike (7070380-MS1) Source: AAG0387-08 Prepared & Analyzed: 07/20/17											
Mercury	0.00234	0.00050	0.000041	mg/L	2.5000E-3	ND	94	75-125			
Matrix Spike Dup (7070380-MSD1) Source: AAG0387-08 Prepared & Analyzed: 07/20/17											
Mercury	0.00228	0.00050	0.000041	mg/L	2.5000E-3	ND	91	75-125	3	20	
Post Spike (7070380-PS1) Source: AAG0387-08 Prepared & Analyzed: 07/20/17											
Mercury	1.67			ug/L	1.6667	0.00549	100	80-120			
Batch 7070414 - EPA 3005A											
Blank (7070414-BLK1) Prepared: 07/18/17 Analyzed: 07/20/17											
Antimony	ND	0.0030	0.0006	mg/L							
Arsenic	ND	0.0050	0.0005	mg/L							
Barium	ND	0.0100	0.0004	mg/L							
Beryllium	ND	0.0030	0.00009	mg/L							
Boron	ND	0.0400	0.0060	mg/L							
Cadmium	ND	0.0010	0.0001	mg/L							
Calcium	ND	0.500	0.0404	mg/L							
Chromium	ND	0.0100	0.0005	mg/L							
Cobalt	ND	0.0100	0.0003	mg/L							
Copper	0.0004	0.0250	0.0003	mg/L							J
Lead	ND	0.0050	0.00007	mg/L							
Molybdenum	ND	0.0100	0.0010	mg/L							
Nickel	ND	0.0100	0.0005	mg/L							
Selenium	ND	0.0100	0.0018	mg/L							
Silver	ND	0.0100	0.0002	mg/L							
Thallium	ND	0.0010	0.00005	mg/L							
Vanadium	ND	0.0100	0.0012	mg/L							
Zinc	ND	0.0100	0.0012	mg/L							
Lithium	ND	0.0500	0.0015	mg/L							



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Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 7070414 - EPA 3005A

LCS (7070414-BS1)

Prepared: 07/18/17 Analyzed: 07/20/17

Antimony	0.102	0.0030	0.0006	mg/L	0.10000		102	80-120			
Arsenic	0.101	0.0050	0.0005	mg/L	0.10000		101	80-120			
Barium	0.102	0.0100	0.0004	mg/L	0.10000		102	80-120			
Beryllium	0.105	0.0030	0.00009	mg/L	0.10000		105	80-120			
Boron	1.11	0.0400	0.0060	mg/L	1.0000		111	80-120			
Cadmium	0.101	0.0010	0.0001	mg/L	0.10000		101	80-120			
Calcium	1.05	0.500	0.0404	mg/L	1.0000		105	80-120			
Chromium	0.108	0.0100	0.0005	mg/L	0.10000		108	80-120			
Cobalt	0.104	0.0100	0.0003	mg/L	0.10000		104	80-120			
Copper	0.100	0.0250	0.0003	mg/L	0.10000		100	80-120			
Lead	0.103	0.0050	0.00007	mg/L	0.10000		103	80-120			
Molybdenum	0.104	0.0100	0.0010	mg/L	0.10000		104	80-120			
Nickel	0.104	0.0100	0.0005	mg/L	0.10000		104	80-120			
Selenium	0.102	0.0100	0.0018	mg/L	0.10000		102	80-120			
Silver	0.104	0.0100	0.0002	mg/L	0.10000		104	80-120			
Thallium	0.102	0.0010	0.00005	mg/L	0.10000		102	80-120			
Vanadium	0.107	0.0100	0.0012	mg/L	0.10000		107	80-120			
Zinc	0.103	0.0100	0.0012	mg/L	0.10000		103	80-120			
Lithium	0.107	0.0500	0.0015	mg/L	0.10000		107	80-120			

Matrix Spike (7070414-MS1)

Source: AAG0387-10

Prepared: 07/18/17 Analyzed: 07/20/17

Antimony	0.101	0.0030	0.0006	mg/L	0.10000	ND	101	75-125			
Arsenic	0.106	0.0050	0.0005	mg/L	0.10000	0.0011	105	75-125			
Barium	0.119	0.0100	0.0004	mg/L	0.10000	0.0365	83	75-125			
Beryllium	0.0931	0.0030	0.00009	mg/L	0.10000	ND	93	75-125			
Boron	2.53	0.0400	0.0060	mg/L	1.0000	1.62	91	75-125			
Cadmium	0.103	0.0010	0.0001	mg/L	0.10000	ND	103	75-125			
Calcium	84.8	25.0	2.02	mg/L	1.0000	83.7	108	75-125			
Chromium	0.104	0.0100	0.0005	mg/L	0.10000	ND	104	75-125			
Cobalt	0.130	0.0100	0.0003	mg/L	0.10000	0.0265	104	75-125			
Copper	0.0959	0.0250	0.0003	mg/L	0.10000	ND	96	75-125			
Lead	0.0983	0.0050	0.00007	mg/L	0.10000	ND	98	75-125			
Molybdenum	0.107	0.0100	0.0010	mg/L	0.10000	0.0015	105	75-125			
Nickel	0.107	0.0100	0.0005	mg/L	0.10000	0.0054	101	75-125			
Selenium	0.108	0.0100	0.0018	mg/L	0.10000	ND	108	75-125			
Silver	0.0956	0.0100	0.0002	mg/L	0.10000	ND	96	75-125			
Thallium	0.101	0.0010	0.00005	mg/L	0.10000	ND	101	75-125			
Vanadium	0.110	0.0100	0.0012	mg/L	0.10000	ND	110	75-125			
Zinc	0.106	0.0100	0.0012	mg/L	0.10000	0.0040	102	75-125			
Lithium	0.107	0.0500	0.0015	mg/L	0.10000	0.0104	96	75-125			



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Attention: Mr. Joju Abraham

July 25, 2017

Report No.: AAG0387

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7070414 - EPA 3005A											
Matrix Spike Dup (7070414-MSD1)			Source: AAG0387-10			Prepared: 07/18/17 Analyzed: 07/20/17					
Antimony	0.104	0.0030	0.0006	mg/L	0.10000	ND	104	75-125	3	20	
Arsenic	0.104	0.0050	0.0005	mg/L	0.10000	0.0011	103	75-125	2	20	
Barium	0.122	0.0100	0.0004	mg/L	0.10000	0.0365	86	75-125	2	20	
Beryllium	0.0866	0.0030	0.00009	mg/L	0.10000	ND	87	75-125	7	20	
Boron	2.45	0.0400	0.0060	mg/L	1.0000	1.62	83	75-125	3	20	
Cadmium	0.0971	0.0010	0.0001	mg/L	0.10000	ND	97	75-125	6	20	
Calcium	89.3	25.0	2.02	mg/L	1.0000	83.7	557	75-125	5	20	QM-02
Chromium	0.103	0.0100	0.0005	mg/L	0.10000	ND	103	75-125	0.9	20	
Cobalt	0.127	0.0100	0.0003	mg/L	0.10000	0.0265	100	75-125	3	20	
Copper	0.0921	0.0250	0.0003	mg/L	0.10000	ND	92	75-125	4	20	
Lead	0.0944	0.0050	0.00007	mg/L	0.10000	ND	94	75-125	4	20	
Molybdenum	0.107	0.0100	0.0010	mg/L	0.10000	0.0015	106	75-125	0.8	20	
Nickel	0.103	0.0100	0.0005	mg/L	0.10000	0.0054	98	75-125	3	20	
Selenium	0.107	0.0100	0.0018	mg/L	0.10000	ND	107	75-125	0.3	20	
Silver	0.0963	0.0100	0.0002	mg/L	0.10000	ND	96	75-125	0.7	20	
Thallium	0.0964	0.0010	0.00005	mg/L	0.10000	ND	96	75-125	5	20	
Vanadium	0.107	0.0100	0.0012	mg/L	0.10000	ND	107	75-125	3	20	
Zinc	0.101	0.0100	0.0012	mg/L	0.10000	0.0040	97	75-125	5	20	
Lithium	0.101	0.0500	0.0015	mg/L	0.10000	0.0104	90	75-125	6	20	
Post Spike (7070414-PS1)											
Source: AAG0387-10			Prepared: 07/18/17 Analyzed: 07/20/17								
Antimony	102			ug/L	100.00	0.433	101	80-120			
Arsenic	104			ug/L	100.00	1.05	102	80-120			
Barium	122			ug/L	100.00	36.5	86	80-120			
Beryllium	88.6			ug/L	100.00	0.0154	89	80-120			
Boron	2520			ug/L	1000.0	1620	90	80-120			
Cadmium	99.5			ug/L	100.00	0.0284	99	80-120			
Calcium	83200			ug/L	1000.0	83700	NR	80-120			QM-02
Chromium	101			ug/L	100.00	0.357	101	80-120			
Cobalt	123			ug/L	100.00	26.5	97	80-120			
Copper	92.0			ug/L	100.00	0.184	92	80-120			
Lead	94.2			ug/L	100.00	0.0118	94	80-120			
Molybdenum	109			ug/L	100.00	1.54	107	80-120			
Nickel	102			ug/L	100.00	5.37	96	80-120			
Selenium	105			ug/L	100.00	0.612	104	80-120			
Silver	95.9			ug/L	100.00	0.0028	96	80-120			
Thallium	95.6			ug/L	100.00	0.0057	96	80-120			
Vanadium	107			ug/L	100.00	0.726	107	80-120			
Zinc	103			ug/L	100.00	3.98	99	80-120			
Lithium	104			ug/L	100.00	10.4	94	80-120			



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July 25, 2017

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Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 7070491 - EPA 3005A

Blank (7070491-BLK1)

Prepared: 07/20/17 Analyzed: 07/21/17

Antimony	ND	0.0030	0.0006	mg/L							
Arsenic	ND	0.0050	0.0005	mg/L							
Barium	ND	0.0100	0.0004	mg/L							
Beryllium	ND	0.0030	0.00009	mg/L							
Boron	ND	0.0400	0.0060	mg/L							
Cadmium	ND	0.0010	0.0001	mg/L							
Calcium	ND	0.500	0.0404	mg/L							
Chromium	ND	0.0100	0.0005	mg/L							
Cobalt	ND	0.0100	0.0003	mg/L							
Copper	0.0003	0.0250	0.0003	mg/L							J
Lead	ND	0.0050	0.00007	mg/L							
Molybdenum	ND	0.0100	0.0010	mg/L							
Nickel	ND	0.0100	0.0005	mg/L							
Selenium	ND	0.0100	0.0018	mg/L							
Silver	ND	0.0100	0.0002	mg/L							
Thallium	ND	0.0010	0.00005	mg/L							
Vanadium	ND	0.0100	0.0012	mg/L							
Zinc	ND	0.0100	0.0012	mg/L							
Lithium	ND	0.0500	0.0015	mg/L							

LCS (7070491-BS1)

Prepared: 07/20/17 Analyzed: 07/24/17

Antimony	0.120	0.0030	0.0006	mg/L	0.10000		120	80-120			
Arsenic	0.114	0.0050	0.0005	mg/L	0.10000		114	80-120			
Barium	0.106	0.0100	0.0004	mg/L	0.10000		106	80-120			
Beryllium	0.111	0.0030	0.00009	mg/L	0.10000		111	80-120			
Boron	1.13	0.0400	0.0060	mg/L	1.0000		113	80-120			
Cadmium	0.120	0.0010	0.0001	mg/L	0.10000		120	80-120			
Calcium	1.18	0.500	0.0404	mg/L	1.0000		118	80-120			
Chromium	0.114	0.0100	0.0005	mg/L	0.10000		114	80-120			
Cobalt	0.115	0.0100	0.0003	mg/L	0.10000		115	80-120			
Copper	0.114	0.0250	0.0003	mg/L	0.10000		114	80-120			
Lead	0.113	0.0050	0.00007	mg/L	0.10000		113	80-120			
Molybdenum	0.119	0.0100	0.0010	mg/L	0.10000		119	80-120			
Nickel	0.116	0.0100	0.0005	mg/L	0.10000		116	80-120			
Selenium	0.111	0.0100	0.0018	mg/L	0.10000		111	80-120			
Silver	0.117	0.0100	0.0002	mg/L	0.10000		117	80-120			
Thallium	0.116	0.0010	0.00005	mg/L	0.10000		116	80-120			
Vanadium	0.115	0.0100	0.0012	mg/L	0.10000		115	80-120			
Zinc	0.116	0.0100	0.0012	mg/L	0.10000		116	80-120			
Lithium	0.109	0.0500	0.0015	mg/L	0.10000		109	80-120			



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Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7070491 - EPA 3005A											
Matrix Spike (7070491-MS1)			Source: AAG0387-01				Prepared: 07/20/17 Analyzed: 07/21/17				
Antimony	0.115	0.0030	0.0006	mg/L	0.10000	0.0006	114	75-125			
Arsenic	0.0995	0.0050	0.0005	mg/L	0.10000	ND	99	75-125			
Barium	0.117	0.0100	0.0004	mg/L	0.10000	0.0233	94	75-125			
Beryllium	0.0981	0.0030	0.00009	mg/L	0.10000	ND	98	75-125			
Boron	1.02	0.0400	0.0060	mg/L	1.0000	0.0131	101	75-125			
Cadmium	0.106	0.0010	0.0001	mg/L	0.10000	ND	106	75-125			
Calcium	15.3	25.0	2.02	mg/L	1.0000	14.3	101	75-125			J
Chromium	0.103	0.0100	0.0005	mg/L	0.10000	ND	103	75-125			
Cobalt	0.118	0.0100	0.0003	mg/L	0.10000	0.0096	109	75-125			
Copper	0.0984	0.0250	0.0003	mg/L	0.10000	0.0004	98	75-125			
Lead	0.0978	0.0050	0.00007	mg/L	0.10000	ND	98	75-125			
Molybdenum	0.106	0.0100	0.0010	mg/L	0.10000	ND	106	75-125			
Nickel	0.104	0.0100	0.0005	mg/L	0.10000	0.0025	102	75-125			
Selenium	0.100	0.0100	0.0018	mg/L	0.10000	ND	100	75-125			
Silver	0.0994	0.0100	0.0002	mg/L	0.10000	ND	99	75-125			
Thallium	0.100	0.0010	0.00005	mg/L	0.10000	ND	100	75-125			
Vanadium	0.104	0.0100	0.0012	mg/L	0.10000	ND	104	75-125			
Zinc	0.108	0.0100	0.0012	mg/L	0.10000	0.0043	104	75-125			
Lithium	0.103	0.0500	0.0015	mg/L	0.10000	0.0051	98	75-125			
Matrix Spike Dup (7070491-MSD1)			Source: AAG0387-01				Prepared: 07/20/17 Analyzed: 07/21/17				
Antimony	0.117	0.0030	0.0006	mg/L	0.10000	0.0006	117	75-125	2	20	
Arsenic	0.103	0.0050	0.0005	mg/L	0.10000	ND	103	75-125	3	20	
Barium	0.120	0.0100	0.0004	mg/L	0.10000	0.0233	97	75-125	3	20	
Beryllium	0.104	0.0030	0.00009	mg/L	0.10000	ND	104	75-125	6	20	
Boron	1.06	0.0400	0.0060	mg/L	1.0000	0.0131	105	75-125	4	20	
Cadmium	0.101	0.0010	0.0001	mg/L	0.10000	ND	101	75-125	5	20	
Calcium	15.5	25.0	2.02	mg/L	1.0000	14.3	123	75-125	1	20	J
Chromium	0.106	0.0100	0.0005	mg/L	0.10000	ND	106	75-125	3	20	
Cobalt	0.117	0.0100	0.0003	mg/L	0.10000	0.0096	108	75-125	1	20	
Copper	0.0987	0.0250	0.0003	mg/L	0.10000	0.0004	98	75-125	0.3	20	
Lead	0.0981	0.0050	0.00007	mg/L	0.10000	ND	98	75-125	0.3	20	
Molybdenum	0.106	0.0100	0.0010	mg/L	0.10000	ND	106	75-125	0.05	20	
Nickel	0.107	0.0100	0.0005	mg/L	0.10000	0.0025	104	75-125	3	20	
Selenium	0.102	0.0100	0.0018	mg/L	0.10000	ND	102	75-125	2	20	
Silver	0.101	0.0100	0.0002	mg/L	0.10000	ND	101	75-125	2	20	
Thallium	0.101	0.0010	0.00005	mg/L	0.10000	ND	101	75-125	0.6	20	
Vanadium	0.107	0.0100	0.0012	mg/L	0.10000	ND	107	75-125	3	20	
Zinc	0.107	0.0100	0.0012	mg/L	0.10000	0.0043	103	75-125	0.8	20	
Lithium	0.110	0.0500	0.0015	mg/L	0.10000	0.0051	104	75-125	6	20	



PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
 110 Technology Parkway, Peachtree Corners, GA 30092
 (770) 734-4200 FAX (770) 734-4201

Georgia Power
 2480 Maner Road
 Atlanta GA, 30339

Attention: Mr. Joju Abraham

July 25, 2017

Report No.: AAG0387

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7070491 - EPA 3005A											
Post Spike (7070491-PS1)			Source: AAG0387-01			Prepared: 07/20/17 Analyzed: 07/21/17					
Antimony	106			ug/L	100.00	0.648	105	80-120			
Arsenic	102			ug/L	100.00	0.0447	102	80-120			
Barium	115			ug/L	100.00	23.3	92	80-120			
Beryllium	100			ug/L	100.00	0.0625	100	80-120			
Boron	1030			ug/L	1000.0	13.1	102	80-120			
Cadmium	103			ug/L	100.00	0.142	103	80-120			
Calcium	15300			ug/L	1000.0	14300	95	80-120			
Chromium	101			ug/L	100.00	0.196	101	80-120			
Cobalt	113			ug/L	100.00	9.61	103	80-120			
Copper	100			ug/L	100.00	0.386	100	80-120			
Lead	97.0			ug/L	100.00	0.0209	97	80-120			
Molybdenum	103			ug/L	100.00	0.316	103	80-120			
Nickel	99.9			ug/L	100.00	2.47	97	80-120			
Selenium	104			ug/L	100.00	1.29	103	80-120			
Silver	99.1			ug/L	100.00	-0.0002	99	80-120			
Thallium	98.5			ug/L	100.00	0.0377	98	80-120			
Vanadium	105			ug/L	100.00	0.324	105	80-120			
Zinc	105			ug/L	100.00	4.33	101	80-120			
Lithium	103			ug/L	100.00	5.08	98	80-120			



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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

July 25, 2017

Legend

Definition of Laboratory Terms

- ND** - Not Detected at levels equal to or greater than the MDL
BRL - Not Detected at levels equal to or greater than the RL
RL - Reporting Limit **MDL** - Method Detection Limit
SOP - Method run per Pace Standard Operating Procedure
CFU - Colony Forming Units
DF - Dilution Factor **TIC** - Tentatively Identified Compound

Sample Information

N-Nitrosodiphenylamine breaks down to diphenylamine in the GCMS; both analytes are reported as N-Nitrosodiphenylamine. Pace is not NELAC certified for N-Nitrosodiphenylamine.

Phthalic acid and phthalic anhydride are reported as dimethyl phthalate

Maleic acid and maleic anhydride are reported as dimethyl malate

1,2-Diphenylhydrazine breaks down to azobenzene in the GCMS; both analytes are reported as azobenzene

Definition of Qualifiers

- QM-05** The spike recovery was outside acceptance limits for the MS and/or MSD and/or PDS due to suspected matrix interference. Sample results for the QC batch were accepted based on acceptable LCS recoveries.
- QM-02** The spike recovery is outside acceptance limits due to insignificant spike amount as compared to sample concentration.
- J** Estimated value less than Reporting Limit (RL) but greater than Method Detection Limit(MDL) (CLP J-Flag).

Note: Unless otherwise noted, all results are reported on an as received basis.



CHAIN OF CUSTODY RECORD

Pace Analytical Services, Inc.
110 TECHNOLOGY PARKWAY, PEACHTREE CORNERS, GA 30092
(770) 734-4200 : FAX (770) 734-4201 : www.asi-lab.com

CLIENT NAME: Georgia Power
CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER: 241 Ralph McGill Blvd SE B10185 Atlanta, GA 30308
REPORT TO: Lauren Petty
REQUESTED COMPLETION DATE:
PROJECT NAME/STATE: Plant Yates Phase II Facilities
PROJECT #: Phase 2 CCR

Table with columns: CONTAINER TYPE, ANALYSIS REQUESTED, MATRIX CODE, SAMPLE IDENTIFICATION, DATE, TIME, MATRIX CODE, etc. Includes rows for samples 1-11.

RECEIVED BY: C. Harker, B. Walker
DATE/TIME: 7-13-2017 1715
RELINQUISHED BY: [Signature]
DATE/TIME: 7-14-17 0920
LAB #: AAG60387
Tracking #: [Signature]

Sample Condition Upon Receipt



Client Name: GIA power

Project # AAG0387

Courier: Fed Ex UPS USPS Client Commercial Pace Other _____
Tracking #: _____

Optional:
Proj. Due Date:
Proj. Name:

Custody Seal on Cooler/Box Present: yes no Seals intact: yes no

Packing Material: Bubble Wrap Bubble Bags None Other _____

Thermometer Used IR-2 Type of Ice: Wet Blue None Samples on Ice, cooling process has begun

Cooler Temperature 3.1 Biological Tissue is Frozen: Yes No
Temp should be above freezing to 6°C

Date and Initials of person examining contents: <u>7/14/17 MR</u>

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.	
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.	
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.	
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.	
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.	
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.	
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.	
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.	
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.	
-Pace Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.	
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.	
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.	
-Includes date/time/ID/Analysis Matrix:			
All containers needing preservation have been checked.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	13.	
All containers needing preservation are found to be in compliance with EPA recommendation.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Initial when completed	Lot # of added preservative
Samples checked for dechlorination:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.	
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.	
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	16.	
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A		
Pace Trip Blank Lot # (if purchased):			

Client Notification/ Resolution: _____ Date/Time: _____ Field Data Required? Y / N

Person Contacted: _____

Comments/ Resolution: _____

Project Manager Review: _____ Date: _____

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

F-ALLC003rev.3, 11September2006



PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

LOG-IN CHECKLIST

Printed: 7/17/2017 12:13:35PM

Attn: Mr. Joju Abraham

Client: Georgia Power

Project: CCR Event

Date Received: 07/14/17 09:20

Work Order: AAG0387

Logged In By: Mohammad M. Rahman

OBSERVATIONS

#Samples: 11

#Containers: 46

Minimum Temp(C): 3.1

Maximum Temp(C): 3.1

Custody Seal(s) Used: Yes

CHECKLIST ITEMS

- COC included with Samples YES
- Sample Container(s) Intact YES
- Chain of Custody Complete YES
- Sample Container(s) Match COC YES
- Custody seal Intact YES
- Temperature in Compliance YES
- Sufficient Sample Volume for Analysis YES
- Zero Headspace Maintained for VOA Analyses YES
- Samples labeled preserved (If Applicable) YES
- Samples received within Allowable Hold Times YES
- Samples Received on Ice YES
- Preservation Confirmed YES

Comments:

August 07, 2017

Ms. Lauren Petty
GA Power
42 Inverness Center Parkway
Birmingham, AL 35242

RE: Project: AAG0387 Plant Yates
Pace Project No.: 30224382

Dear Ms. Petty:

Enclosed are the analytical results for sample(s) received by the laboratory on July 17, 2017. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Jacquelyn Collins
jacquelyn.collins@pacelabs.com
(724)850-5612
Project Manager

Enclosures



REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
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CERTIFICATIONS

Project: AAG0387 Plant Yates

Pace Project No.: 30224382

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601

L-A-B DOD-ELAP Accreditation #: L2417

Alabama Certification #: 41590

Arizona Certification #: AZ0734

Arkansas Certification

California Certification #: 04222CA

Colorado Certification

Connecticut Certification #: PH-0694

Delaware Certification

Florida/TNI Certification #: E87683

Georgia Certification #: C040

Guam Certification

Hawaii Certification

Idaho Certification

Illinois Certification

Indiana Certification

Iowa Certification #: 391

Kansas/TNI Certification #: E-10358

Kentucky Certification #: 90133

Louisiana DHH/TNI Certification #: LA140008

Louisiana DEQ/TNI Certification #: 4086

Maine Certification #: PA00091

Maryland Certification #: 308

Massachusetts Certification #: M-PA1457

Michigan/PADEP Certification

Missouri Certification #: 235

Montana Certification #: Cert 0082

Nebraska Certification #: NE-05-29-14

Nevada Certification #: PA014572015-1

New Hampshire/TNI Certification #: 2976

New Jersey/TNI Certification #: PA 051

New Mexico Certification #: PA01457

New York/TNI Certification #: 10888

North Carolina Certification #: 42706

North Dakota Certification #: R-190

Oregon/TNI Certification #: PA200002

Pennsylvania/TNI Certification #: 65-00282

Puerto Rico Certification #: PA01457

Rhode Island Certification #: 65-00282

South Dakota Certification

Tennessee Certification #: TN2867

Texas/TNI Certification #: T104704188-14-8

Utah/TNI Certification #: PA014572015-5

USDA Soil Permit #: P330-14-00213

Vermont Dept. of Health: ID# VT-0282

Virgin Island/PADEP Certification

Virginia/VELAP Certification #: 460198

Washington Certification #: C868

West Virginia DEP Certification #: 143

West Virginia DHHR Certification #: 9964C

Wisconsin Certification

Wyoming Certification #: 8TMS-L

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: AAG0387 Plant Yates

Pace Project No.: 30224382

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30224382001	YGWA-47	Water	07/11/17 10:40	07/17/17 09:30
30224382002	YGWC-42	Water	07/11/17 13:10	07/17/17 09:30
30224382003	YGWC-43	Water	07/11/17 14:50	07/17/17 09:30
30224382004	Dup-1	Water	07/11/17 00:00	07/17/17 09:30
30224382005	YGWC-36	Water	07/13/17 10:40	07/17/17 09:30
30224382006	YGWC-49	Water	07/13/17 12:55	07/17/17 09:30
30224382007	EB-1-7-13-17	Water	07/13/17 13:30	07/17/17 09:30
30224382008	YGWC-44	Water	07/13/17 12:25	07/17/17 09:30
30224382009	YGWC-45	Water	07/13/17 10:35	07/17/17 09:30
30224382010	YGWC-46	Water	07/13/17 14:20	07/17/17 09:30
30224382011	FB-1-7-13-17	Water	07/13/17 14:35	07/17/17 09:30

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: AAG0387 Plant Yates

Pace Project No.: 30224382

Lab ID	Sample ID	Method	Analysts	Analytes Reported
30224382001	YGWA-47	EPA 9315	JC2	1
		EPA 9320	VAL	1
		Total Radium Calculation	RMK	1
30224382002	YGWC-42	EPA 9315	JC2	1
		EPA 9320	VAL	1
		Total Radium Calculation	RMK	1
30224382003	YGWC-43	EPA 9315	JC2	1
		EPA 9320	VAL	1
		Total Radium Calculation	RMK	1
30224382004	Dup-1	EPA 9315	JC2	1
		EPA 9320	VAL	1
		Total Radium Calculation	RMK	1
30224382005	YGWC-36	EPA 9315	JC2	1
		EPA 9320	VAL	1
		Total Radium Calculation	RMK	1
30224382006	YGWC-49	EPA 9315	JC2	1
		EPA 9320	VAL	1
		Total Radium Calculation	RMK	1
30224382007	EB-1-7-13-17	EPA 9315	JC2	1
		EPA 9320	VAL	1
		Total Radium Calculation	RMK	1
30224382008	YGWC-44	EPA 9315	JC2	1
		EPA 9320	VAL	1
		Total Radium Calculation	RMK	1
30224382009	YGWC-45	EPA 9315	JC2	1
		EPA 9320	VAL	1
		Total Radium Calculation	RMK	1
30224382010	YGWC-46	EPA 9315	JC2	1
		EPA 9320	VAL	1
		Total Radium Calculation	RMK	1
30224382011	FB-1-7-13-17	EPA 9315	JC2	1
		EPA 9320	VAL	1
		Total Radium Calculation	RMK	1

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AAG0387 Plant Yates

Pace Project No.: 30224382

Sample: YGWA-47		Lab ID: 30224382001	Collected: 07/11/17 10:40	Received: 07/17/17 09:30	Matrix: Water	
PWS:		Site ID:	Sample Type:			
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.280 ± 0.133 (0.146) C:90% T:NA	pCi/L	08/02/17 09:12	13982-63-3	
Radium-228	EPA 9320	0.191 ± 0.350 (0.766) C:80% T:85%	pCi/L	08/02/17 15:59	15262-20-1	
Total Radium	Total Radium Calculation	0.471 ± 0.483 (0.912)	pCi/L	08/04/17 11:56	7440-14-4	

Sample: YGWC-42		Lab ID: 30224382002	Collected: 07/11/17 13:10	Received: 07/17/17 09:30	Matrix: Water	
PWS:		Site ID:	Sample Type:			
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	1.77 ± 0.391 (0.161) C:94% T:NA	pCi/L	08/02/17 09:12	13982-63-3	
Radium-228	EPA 9320	2.17 ± 0.717 (0.986) C:81% T:61%	pCi/L	08/02/17 15:59	15262-20-1	
Total Radium	Total Radium Calculation	3.94 ± 1.11 (1.15)	pCi/L	08/04/17 11:56	7440-14-4	

Sample: YGWC-43		Lab ID: 30224382003	Collected: 07/11/17 14:50	Received: 07/17/17 09:30	Matrix: Water	
PWS:		Site ID:	Sample Type:			
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.724 ± 0.228 (0.188) C:88% T:NA	pCi/L	08/02/17 09:12	13982-63-3	
Radium-228	EPA 9320	0.300 ± 0.349 (0.737) C:78% T:91%	pCi/L	08/02/17 15:59	15262-20-1	
Total Radium	Total Radium Calculation	1.02 ± 0.577 (0.925)	pCi/L	08/04/17 11:56	7440-14-4	

Sample: Dup-1		Lab ID: 30224382004	Collected: 07/11/17 00:00	Received: 07/17/17 09:30	Matrix: Water	
PWS:		Site ID:	Sample Type:			
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	1.73 ± 0.394 (0.141) C:85% T:NA	pCi/L	08/02/17 09:12	13982-63-3	
Radium-228	EPA 9320	0.679 ± 0.422 (0.801) C:79% T:82%	pCi/L	08/02/17 15:59	15262-20-1	
Total Radium	Total Radium Calculation	2.41 ± 0.816 (0.942)	pCi/L	08/04/17 11:56	7440-14-4	

Sample: YGWC-36		Lab ID: 30224382005	Collected: 07/13/17 10:40	Received: 07/17/17 09:30	Matrix: Water	
PWS:		Site ID:	Sample Type:			
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.322 ± 0.142 (0.150) C:92% T:NA	pCi/L	08/02/17 09:12	13982-63-3	
Radium-228	EPA 9320	0.296 ± 0.350 (0.739) C:80% T:81%	pCi/L	08/02/17 15:59	15262-20-1	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AAG0387 Plant Yates
Pace Project No.: 30224382

Sample: YGWC-36		Lab ID: 30224382005	Collected: 07/13/17 10:40	Received: 07/17/17 09:30	Matrix: Water	
PWS:		Site ID:	Sample Type:			
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Total Radium	Total Radium Calculation	0.618 ± 0.492 (0.889)	pCi/L	08/04/17 11:56	7440-14-4	

Sample: YGWC-49		Lab ID: 30224382006	Collected: 07/13/17 12:55	Received: 07/17/17 09:30	Matrix: Water	
PWS:		Site ID:	Sample Type:			
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.288 ± 0.152 (0.226) C:88% T:NA	pCi/L	08/02/17 09:12	13982-63-3	
Radium-228	EPA 9320	0.212 ± 0.373 (0.815) C:84% T:76%	pCi/L	08/02/17 15:59	15262-20-1	
Total Radium	Total Radium Calculation	0.500 ± 0.525 (1.04)	pCi/L	08/04/17 11:56	7440-14-4	

Sample: EB-1-7-13-17		Lab ID: 30224382007	Collected: 07/13/17 13:30	Received: 07/17/17 09:30	Matrix: Water	
PWS:		Site ID:	Sample Type:			
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.293 ± 0.143 (0.182) C:90% T:NA	pCi/L	08/02/17 09:12	13982-63-3	
Radium-228	EPA 9320	0.585 ± 0.365 (0.691) C:83% T:86%	pCi/L	08/02/17 15:59	15262-20-1	
Total Radium	Total Radium Calculation	0.878 ± 0.508 (0.873)	pCi/L	08/04/17 11:56	7440-14-4	

Sample: YGWC-44		Lab ID: 30224382008	Collected: 07/13/17 12:25	Received: 07/17/17 09:30	Matrix: Water	
PWS:		Site ID:	Sample Type:			
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.315 ± 0.137 (0.145) C:101% T:NA	pCi/L	08/02/17 09:12	13982-63-3	
Radium-228	EPA 9320	0.455 ± 0.381 (0.770) C:82% T:85%	pCi/L	08/02/17 16:00	15262-20-1	
Total Radium	Total Radium Calculation	0.770 ± 0.518 (0.915)	pCi/L	08/04/17 11:56	7440-14-4	

Sample: YGWC-45		Lab ID: 30224382009	Collected: 07/13/17 10:35	Received: 07/17/17 09:30	Matrix: Water	
PWS:		Site ID:	Sample Type:			
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.611 ± 0.201 (0.163) C:94% T:NA	pCi/L	08/02/17 09:12	13982-63-3	
Radium-228	EPA 9320	-0.339 ± 0.334 (0.858) C:77% T:85%	pCi/L	08/02/17 18:09	15262-20-1	
Total Radium	Total Radium Calculation	0.611 ± 0.535 (1.02)	pCi/L	08/04/17 11:56	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AAG0387 Plant Yates

Pace Project No.: 30224382

Parameters		Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Sample: YGWC-46		Lab ID: 30224382010	Collected: 07/13/17 14:20	Received: 07/17/17 09:30	Matrix: Water		
PWS:		Site ID:	Sample Type:				
Radium-226	EPA 9315	0.657 ± 0.204 (0.152)	pCi/L	08/02/17 09:41	13982-63-3		
Radium-228	EPA 9320	0.752 ± 0.408 (0.693)	pCi/L	08/02/17 18:09	15262-20-1		
Total Radium	Total Radium Calculation	1.41 ± 0.612 (0.845)	pCi/L	08/04/17 11:56	7440-14-4		

Parameters		Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Sample: FB-1-7-13-17		Lab ID: 30224382011	Collected: 07/13/17 14:35	Received: 07/17/17 09:30	Matrix: Water		
PWS:		Site ID:	Sample Type:				
Radium-226	EPA 9315	0.109 ± 0.0982 (0.178)	pCi/L	08/02/17 09:42	13982-63-3		
Radium-228	EPA 9320	0.478 ± 0.376 (0.738)	pCi/L	08/02/17 18:09	15262-20-1		
Total Radium	Total Radium Calculation	0.587 ± 0.474 (0.916)	pCi/L	08/04/17 11:56	7440-14-4		

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: AAG0387 Plant Yates

Pace Project No.: 30224382

QC Batch:	265653	Analysis Method:	EPA 9320
QC Batch Method:	EPA 9320	Analysis Description:	9320 Radium 228
Associated Lab Samples:	30224382001, 30224382002, 30224382003, 30224382004, 30224382005, 30224382006, 30224382007, 30224382008, 30224382009, 30224382010, 30224382011		

METHOD BLANK:	1308228	Matrix:	Water
Associated Lab Samples:	30224382001, 30224382002, 30224382003, 30224382004, 30224382005, 30224382006, 30224382007, 30224382008, 30224382009, 30224382010, 30224382011		

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.302 ± 0.274 (0.549) C:82% T:85%	pCi/L	08/02/17 16:00	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: AAG0387 Plant Yates

Pace Project No.: 30224382

QC Batch:	265657	Analysis Method:	EPA 9315
QC Batch Method:	EPA 9315	Analysis Description:	9315 Total Radium
Associated Lab Samples:	30224382001, 30224382002, 30224382003, 30224382004, 30224382005, 30224382006, 30224382007, 30224382008, 30224382009, 30224382010, 30224382011		

METHOD BLANK:	1308239	Matrix:	Water
Associated Lab Samples:	30224382001, 30224382002, 30224382003, 30224382004, 30224382005, 30224382006, 30224382007, 30224382008, 30224382009, 30224382010, 30224382011		

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.254 ± 0.116 (0.177) C:89% T:NA	pCi/L	08/01/17 19:52	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: AAG0387 Plant Yates
Pace Project No.: 30224382

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval).

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

REPORT OF LABORATORY ANALYSIS

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NO#: 30224382



Chain of Custody



Workorder: AAG0387

Workorder Name: Pace - Pittsburgh

Owner Received Date:

Results Requested By: 8/8/2017

Report To: Betsy McDaniel
 Pace Analytical Atlanta
 110 Technology Parkway
 Peachtree Corners, GA 30092
 Phone (770)-734-4200

Subcontract To: Pace - Pittsburgh
 1638 Roseytown Road
 Stes. 2,3,4
 Greensburg, PA 15601
 Phone (724) 850-5600

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers			Date/Time	Comments
						CO	OH	H		
1	YGWA-47	G	7/11/2017 10:40	AAG0387-01	GW	2			7-17-17/09130	
2	YGWC-42	G	7/11/2017 13:10	AAG0387-02	GW	2				
3	YGWC-43	G	7/11/2017 14:50	AAG0387-03	GW	2				
4	Dup-1	G	7/11/2017 0:00	AAG0387-04	GW	2				
5	YGWC-36	G	7/13/2017 10:40	AAG0387-05	GW	4				
6	YGWC-49	G	7/13/2017 12:55	AAG0387-06	GW	2				
7	EB-1-7-13-17	G	7/13/2017 13:30	AAG0387-07	W	2				
8	YGWC-44	G	7/13/2017 12:25	AAG0387-08	GW	2				
9	YGWC-45	G	7/13/2017 10:35	AAG0387-09	GW	2				
10	YGWC-46	G	7/13/2017 14:20	AAG0387-10	GW	2				

Transfers	Released By	Date/Time	Received By	Date/Time	Comments
1	M. RAHMAN	7/19/17	John Joseph Pace	7-17-17/09130	
2					
3					

LAB USE ONLY
 Radium 226, 228, Total
 001
 002
 003
 004
 005
 006
 007
 008
 009
 010

Cooler Temperature on Receipt 11 °C Custody Seal Y or N Received on Ice Y or N Sample Intact Y or N
 ***In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC
 This chain of custody is considered complete as is since this information is available in the owner laboratory.

30224382



Chain of Custody

Results Requested By: 8/8/2017

Owner Received Date:

Workorder Name: Plant Yates

Workorder: AAG0387

Report To:		Subcontract To:		Collect Date/Time		Lab ID	Matrix	Preserved Containers		Requested Analysis	
Betsy McDaniel Pace Analytical Atlanta 110 Technology Parkway Peachtree Corners, GA 30092 Phone (770)-734-4200		Pace - Pittsburgh 1638 Roseytown Road Stes. 2,3,4 Greensburg, PA 15601 Phone (724) 850-5600		7/13/2017	14:35	AAG0387-11	GW	2			
Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers					
11	FB-1-7-13-17	G	7/13/2017 14:35	AAG0387-11	GW	EONH					LAB USE ONLY Oil
12											
13											
14											
15											
16											
17											
18											
19											
20											
Transfers		Released By	Date/Time	Received By	Date/Time	Comments					
1		M. RAHMAN	7/14/17	WhitesburgPac	7-17-17/0930						
2											
3											

Cooler Temperature on Receipt N/A °C Custody Seal Y or N Received on Ice Y or N Sample Intact Y or N

***In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC

This chain of custody is considered complete as is since this information is available in the owner laboratory.

30224382

PAGE: 1 OF 1

Pace Analytical Services, Inc.
110 TECHNOLOGY PARKWAY, PEACHTREE CORNERS, GA 30092
(770) 734-4200 : FAX (770) 734-4201 : www.asi-lab.com

CHAIN OF CUSTODY RECORD

CLIENT NAME: Georgia Power CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER: 241 Ralph McGill Blvd SE B10185 Atlanta, GA 30308 404-506-7239 REPORT TO: Lauren Petty CC: Maria Padilla Heath McCorkle REQUESTED COMPLETION DATE: laburch@southernco.com PROJECT NAME/STATE: Plant Yates Phase II Facilities PROJECT #: Phase 2 CCR		ANALYSIS REQUESTED P P P P P 3 7 3 (EPA 820/7470) Metals App. III & IV (EPA 300.0 & SM 2540C) Cl, F, SD, & TDS (SW-846 8315/8320) Radium 226 & 228		CONTAINER TYPE PRESERVATION # of CONTAINERS ↓		CONTAINER TYPE PRESERVATION F - PLASTIC A - AMBER GLASS G - CLEAR GLASS V - VOA VIAL S - STERILE O - OTHER 1 - HCl, 56°C 2 - H ₂ SO ₄ , 56°C 3 - HNO ₃ 4 - NaOH, 56°C 5 - NaOH/ZnAc, 56°C 6 - Na ₂ S ₂ O ₃ , 56°C 7 - 56°C not frozen	
RECEIVED BY LAB: M. Padilla DATE/TIME: 7-13-17 1435 RECEIVED BY: G. Becker, B. Walker		RELINQUISHED BY: DATE/TIME: 7-13-2017 1715		RELINQUISHED BY: DATE/TIME: 7-14-17 0920			
RECEIVED BY LAB: M. Padilla DATE/TIME: 7-14-17 0920 RECEIVED BY: (Signature)		SAMPLE SHIPPED VIA: UPS FEDEX USPS COURIER OTHER FS (Signature)		LAB #: AA60387 Entered into LIMS: Tracking #:			

Plant Yates COC Phase II Facilities.xlsx

Sample Condition Upon Receipt

30224382



Client Name: GIA Power

Project # AAGLO387

Courier: Fed Ex UPS USPS Client Commercial Pace Other

Tracking #: _____

Custody Seal on Cooler/Box Present: Yes no Seals intact: Yes no

Packing Material: Bubble Wrap Bubble Bags None Other

Thermometer Used IR-2 Type of Ice: Wet Blue None

Cooler Temperature 3.1 Biological Tissue Is Frozen: Yes No

Temp should be above freezing to 6°C

Samples on Ice, cooling process has begun

Date and Initials of person examining contents: 7/14/17 MR

Chain of Custody Present: Yes No N/A 1.

Chain of Custody Filled Out: Yes No N/A 2.

Chain of Custody Relinquished: Yes No N/A 3.

Sampler Name & Signature on COC: Yes No N/A 4.

Samples Arrived within Hold Time: Yes No N/A 5.

Short Hold Time Analysis (<72hr): Yes No N/A 6.

Rush Turn Around Time Requested: Yes No N/A 7.

Sufficient Volume: Yes No N/A 8.

Correct Containers Used: Yes No N/A 9.

-Pace Containers Used: Yes No N/A

Containers Intact: Yes No N/A 10.

Filtered volume received for Dissolved tests Yes No N/A 11.

Sample Labels match COC: Yes No N/A 12.

-Includes date/time/ID/Analysis Matrix: _____

All containers needing preservation have been checked. Yes No N/A 13.

All containers needing preservation are found to be in compliance with EPA recommendation. Yes No N/A

exceptions: VOA, coliform, TOC, O&G, WLDRO (water) Yes No

Initial when completed

Lot # of added preservative

Samples checked for dechlorination: Yes No N/A 14.

Headspace in VOA Vials (>6mm): Yes No N/A 15.

Trip Blank Present: Yes No N/A 16.

Trip Blank Custody Seals Present Yes No N/A

Pace Trip Blank Lot # (if purchased): _____

Client Notification/ Resolution:

Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____

Date: _____

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

F-ALLC003rev.3, 11September2006

Sample Condition Upon Receipt Pittsburgh

Pace Analytical

Client Name: Pace, GA

Project # 30224382

Courier: Fed Ex UPS USPS Client Commercial Pace Other _____

Tracking #: 7413 6657 2151

Label	<u>AML</u>
LIMS Login	<u>BSM</u>

Custody Seal on Cooler/Box Present: yes no Seals Intact: yes no

Thermometer Used N/A Type of Ice: Wet Blue None

Cooler Temperature Observed Temp _____ °C Correction Factor: _____ °C Final Temp: _____ °C

Temp should be above freezing to 6°C

Date and initials of person examining contents: AML 7-17-17

Comments:

	Yes	No	N/A	
Chain of Custody Present:	X			1.
Chain of Custody Filled Out:	X			2.
Chain of Custody Relinquished:	X			3.
Sampler Name & Signature on COC:	X			4.
Sample Labels match COC:	X			5.
-Includes date/time/ID Matrix: <u>WT</u>				
Samples Arrived within Hold Time:	X			6.
Short Hold Time Analysis (<72hr remaining):		X		7.
Rush Turn Around Time Requested:		X		8.
Sufficient Volume:	X			9.
Correct Containers Used:	X			10.
-Pace Containers Used:	X			
Containers intact:	X			11.
Orthophosphate field filtered			X	12.
Organic Samples checked for dechlorination:			X	13.
Filtered volume received for Dissolved tests			X	14.
All containers have been checked for preservation.	X			15.
All containers needing preservation are found to be in compliance with EPA recommendation.	X			<u>PHL2</u>
exceptions: VOA, coliform, TOC, O&G, Phenolics				Initial when completed: <u>AML</u> Date/time of preservation: _____
				Lot # of added preservative: _____
Headspace in VOA Vials (>6mm):			X	16.
Trip Blank Present:		X		17.
Trip Blank Custody Seals Present			X	
Rad Aqueous Samples Screened > 0.5 mrem/hr	X			Initial when completed: <u>AML</u> Date: <u>7-17-17</u>

Client Notification/ Resolution:

Person Contacted: _____ Date/Time: _____ Contacted By: _____

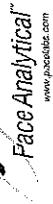
Comments/ Resolution: _____

A check in this box indicates that additional information has been stored in reports.

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

*PM review is documented electronically in LIMS. When the Project Manager closes the SRF Review schedule in LIMS. The review is in the Status section of the Workorder Edit Screen.

Quality Control Sample Performance Assessment



Test: Ra-228
Analyst: VAL
Date: 7/26/2017
Worklist: 36803
Matrix: DW

Method Blank Assessment	
MB Sample ID	1308228
MB Concentration:	0.302
M/B Counting Uncertainty:	0.268
MB MDC:	0.549
MB Numerical Performance Indicator:	2.21
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	
Count Date:	8/2/2017
Spike I.D.:	17-005
Spike Concentration (pCi/mL):	23.902
Volume Used (mL):	0.20
Aliquot Volume (L, g, F):	0.820
Target Conc. (pCi/L, g, F):	5.833
Uncertainty (Calculated):	0.420
Result (pCi/L, g, F):	6.019
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.700
Numerical Performance Indicator:	0.45
Percent Recovery:	103.19%
Status vs Numerical Indicator:	N/A
Status vs Recovery:	Pass

Duplicate Sample Assessment	
Sample I.D.:	30224382005
Duplicate Sample I.D.:	30224382005DUP
Sample Result (pCi/L, g, F):	0.296
Sample Duplicate Counting Uncertainty (pCi/L, g, F):	0.346
Sample Duplicate Result (pCi/L, g, F):	0.756
Sample Duplicate Counting Uncertainty (pCi/L, g, F):	0.446
Are sample and/or duplicate results below MDC?	See Below #
Duplicate Numerical Performance Indicator:	1.599
Duplicate RPD:	87.57%
Duplicate Status vs Numerical Indicator:	N/A
Duplicate Status vs RPD:	Fail***

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

***Batch must be re-prepped due to unacceptable precision.

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Sample Matrix Spike Control Assessment	
Sample Collection Date:	
Sample I.D.:	
Sample MS I.D.:	
Sample MSD I.D.:	
Spike I.D.:	
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	
Spike Volume Used in MS (mL):	
Spike Volume Used in MSD (mL):	
MS Aliquot (L, g, F):	
MSD Aliquot (L, g, F):	
MSD Target Conc. (pCi/L, g, F):	
MSD Target Conc. (pCi/L, g, F):	
Spike uncertainty (calculated):	
Sample Result:	
Sample Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
MS Numerical Performance Indicator:	
MSD Numerical Performance Indicator:	
MS Percent Recovery:	
MSD Percent Recovery:	
MS Status vs Numerical Indicator:	
MSD Status vs Numerical Indicator:	
MS Status vs Recovery:	
MSD Status vs Recovery:	

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.:	
Sample MS I.D.:	
Sample MSD I.D.:	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
Duplicate Numerical Performance Indicator:	
(Based on the Percent Recoveries) MS/MSD Duplicate RPD:	
MS/MSD Duplicate Status vs Numerical Indicator:	
MS/MSD Duplicate Status vs RPD:	

* Numerical Indicator is acceptable.

Quality Control Sample Performance Assessment



Test: Ra-226
Analyst: JC2
Date: 7/27/2017
Worklist: 36807
Matrix: DW

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Sample Matrix Spike Control Assessment

Sample Collection Date:
Sample I.D.:
Sample MS I.D.:
Sample MSD I.D.:

MS/MSD Decay Corrected Spike Concentration (pCi/mL):
Spike Volume Used in MS (mL):
Spike Volume Used in MSD (mL):
MS Aliquot (L, g, F):
MS Target Conc. (pCi/L, g, F):
MSD Aliquot (L, g, F):
MSD Target Conc. (pCi/L, g, F):
Spike uncertainty (calculated):

Sample Result:
Sample Result Counting Uncertainty (pCi/L, g, F):
Sample Matrix Spike Result:
Sample Matrix Spike Duplicate Result:
Sample Matrix Spike Duplicate Result:
MS Numerical Performance Indicator:
MSD Numerical Performance Indicator:

MS Percent Recovery:
MSD Percent Recovery:
MS Status vs Numerical Indicator:
MSD Status vs Numerical Indicator:
MS Status vs Recovery:
MSD Status vs Recovery:

Matrix Spike/Matrix Spike Duplicate Sample Assessment

Sample I.D.:
Sample MS I.D.:
Sample MSD I.D.:

Matrix Spike Result Counting Uncertainty (pCi/L, g, F):
Sample Matrix Spike Duplicate Result:
Sample Matrix Spike Duplicate Result:
Duplicate Numerical Performance Indicator:
MS/MSD Duplicate Status vs Numerical Indicator:
MS/MSD Duplicate Status vs RPD:

Method Blank Assessment

MB Sample ID: 1308239
MB concentration: 0.254
MB Counting Uncertainty: 0.110
MB MDC: 0.177
MB Numerical Performance Indicator: 4.54
MB Status vs Numerical Indicator: N/A
MB Status vs MDC: See Comment

Laboratory Control Sample Assessment

Count Date:	LCS (Y or N)?	N
8/2/2017	LCS36807	LCSD36807
Spike I.D.:	17-030	
Spike Concentration (pCi/mL):	80.197	
Volume Used (mL):	0.10	
Aliquot Volume (L, g, F):	0.515	
Target Conc. (pCi/L, g, F):	15.579	
Uncertainty (Calculated):	1.435	
Result (pCi/L, g, F):	13.665	
Counting Uncertainty (pCi/L, g, F):	0.836	
Numerical Performance Indicator:	-2.26	
Percent Recovery:	87.72%	
Status vs Numerical Indicator:	N/A	
Status vs Recovery:	Pass	

Duplicate Sample Assessment

Sample I.D.: 30224382005
Duplicate Sample I.D.: 30224382005DUP
Sample Result (pCi/L, g, F): 0.322
Sample Result Counting Uncertainty (pCi/L, g, F): 0.134
Sample Duplicate Result (pCi/L, g, F): 0.152
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F): 0.122
Are sample and/or duplicate results below MDC? See Below #
Duplicate Numerical Performance Indicator: 71.88%
Duplicate RPD: N/A
Duplicate Status vs Numerical Indicator: Fail***
Duplicate Status vs RPD: Fail***

Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
30224382005
30224382005DUP

* Numerical Indicator is acceptable.

Comments:
*The method blank result is below the reporting limit for this analysis and is acceptable.
***Batch must be re-prepped due to unacceptable precision.

28/7/17

Product Name: Low-Flow System

Date: 2017-10-12 13:29:03

Project Information:

Operator Name Chris Parker
Company Name ACC
Project Name Plant Yates - Phase 2
Site Name Plant Yates - Phase 2 CCR
Latitude 33° 27' 27.71"
Longitude -84° -53' -49.99"
Sonde SN 466086
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type QED
Tubing Type Bladder
Tubing Diameter .375 in
Tubing Length 60 ft

Pump placement from TOC 55 ft

Well Information:

Well ID YGWC-42
Well diameter 2 in
Well Total Depth 60 ft
Screen Length 10 ft
Depth to Water 28.73 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 1.788119 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 μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	13:07:35	1499.99	21.55	5.66	1436.60	31.00	30.30	0.48	96.51
Last 5	13:12:35	1799.99	21.67	5.65	1457.17	26.00	30.40	0.43	97.05
Last 5	13:17:35	2099.98	21.77	5.63	1480.48	21.00	30.50	0.42	98.71
Last 5	13:22:35	2399.98	21.77	5.62	1515.87	17.00	30.50	0.41	100.18
Last 5	13:27:35	2699.97	21.73	5.59	1564.22	--	--	0.44	103.21
Variance 0			0.10	-0.02	23.32			-0.02	1.66
Variance 1			-0.00	-0.01	35.38			-0.00	1.47
Variance 2			-0.04	-0.03	48.35			0.03	3.03

Notes

Log stopped - saved

Grab Samples

Product Name: Low-Flow System

Date: 2017-10-12 15:11:58

Project Information:

Operator Name J Berisford
Company Name Atlantic Coast Consulting
Project Name Plant Yates- Phase 2
Site Name Plant Yates-Phase 2-CCR
Latitude 33° 27' 17.85"
Longitude -84° -53' -56.26"
Sonde SN 466058
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED Bladder
Tubing Type poly
Tubing Diameter .375 in
Tubing Length 80 ft

Pump placement from TOC 75 ft

Well Information:

Well ID YGWC-43
Well diameter 2 in
Well Total Depth 80 ft
Screen Length 10 ft
Depth to Water 15.33 ft

Pumping Information:

Final Pumping Rate 315 mL/min
Total System Volume 2.222492 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 1 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%	+/- 0		+/- 10%	+/- 10
Last 5	14:50:03	600.02	20.13	5.78	355.20	4.50	15.40	0.33	59.64
Last 5	14:55:03	900.01	19.51	5.84	368.79	3.33	15.40	0.09	52.93
Last 5	15:00:03	1200.00	19.41	5.92	370.20	1.87	15.40	0.06	48.56
Last 5	15:05:03	1500.00	19.28	5.91	372.26	2.55	15.40	0.07	45.78
Last 5	15:10:03	1800.00	19.21	5.97	373.95	1.75	15.40	0.08	41.65
Variance 0			-0.09	0.08	1.41			-0.03	-4.37
Variance 1			-0.13	-0.00	2.06			0.01	-2.78
Variance 2			-0.07	0.05	1.68			0.01	-4.13

Notes

Sunny,80s,sample time-1510,FB-2-10-12-17 here at 1500

Grab Samples

Product Name: Low-Flow System

Date: 2017-10-12 09:48:33

Project Information:

Operator Name J Berisford
Company Name Atlantic Coast Consulting
Project Name Plant Yates- Phase 2
Site Name Plant Yates-Phase 2-CCR
Latitude 33° 27' 7.91"
Longitude -84° -53' -38.6"
Sonde SN 466058
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type Peristaltic Pump
Tubing Type poly
Tubing Diameter .17 in
Tubing Length 46 ft

Pump placement from TOC 41 ft

Well Information:

Well ID PZ-37
Well diameter 2 in
Well Total Depth 46.50 ft
Screen Length 10 ft
Depth to Water 11.44 ft

Pumping Information:

Final Pumping Rate 210 mL/min
Total System Volume 0.2462198 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 3 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%	+/- 0		+/- 10%	+/- 10
Last 5	09:25:06	1500.00	21.00	5.90	1193.22	2.09	11.70	0.21	-56.38
Last 5	09:30:06	1800.03	21.11	5.78	1221.79	2.33	11.70	0.23	-37.43
Last 5	09:35:06	2100.00	21.23	5.65	1249.08	1.75	11.70	0.28	-21.19
Last 5	09:40:06	2399.99	21.46	5.58	1264.94	2.15	11.70	0.25	-12.59
Last 5	09:45:06	2699.98	21.54	5.57	1288.96	1.51	11.70	0.25	-9.60
Variance 0			0.12	-0.14	27.29			0.05	16.24
Variance 1			0.23	-0.06	15.86			-0.03	8.60
Variance 2			0.08	-0.01	24.02			-0.00	2.99

Notes

Sunny, 80s, sample time-0945

Grab Samples

Product Name: Low-Flow System

Date: 2017-10-12 16:26:01

Project Information:

Operator Name Chris Parker
Company Name ACC
Project Name Plant Yates - Phase 2
Site Name Plant Yates - Phase 2 CCR
Latitude 33° 27' 27.71"
Longitude -84° -53' -49.99"
Sonde SN 466086
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type QED
Tubing Type Bladder
Tubing Diameter .375 in
Tubing Length 50 ft

Pump placement from TOC 45 ft

Well Information:

Well ID PZ-38
Well diameter 2 in
Well Total Depth 50.12 ft
Screen Length 10 ft
Depth to Water 31.43 ft

Pumping Information:

Final Pumping Rate 230 mL/min
Total System Volume 1.570932 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 17 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	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	16:03:19	2399.98	20.75	4.84	1615.83	16.00	32.80	0.39	178.18
Last 5	16:08:19	2699.99	20.52	4.84	1613.56	10.00	32.80	0.38	176.47
Last 5	16:13:19	2999.98	20.57	4.85	1611.68	6.94	32.80	0.38	175.26
Last 5	16:18:19	3299.98	20.32	4.85	1608.14	5.22	32.80	0.37	173.89
Last 5	16:23:20	3600.56	20.16	4.85	1606.88	4.87	32.80	0.36	172.81
Variance 0			0.05	0.00	-1.88			-0.01	-1.21
Variance 1			-0.25	0.00	-3.54			-0.01	-1.37
Variance 2			-0.16	-0.00	-1.26			-0.01	-1.08

Notes

Collected at 16:25. Sunny 80s. DUP 2 here. EB-2 here.

Grab Samples

Product Name: Low-Flow System

Date: 2017-10-11 14:06:12

Project Information:

Operator Name J Berisford
Company Name Atlantic Coast Consulting
Project Name Plant Yates- Phase 2
Site Name Plant Yates-Phase 2-CCR
Latitude 33° 27' 0.33"
Longitude -84° -53' -48.83"
Sonde SN 466058
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type Peristaltic Pump
Tubing Type poly
Tubing Diameter .17 in
Tubing Length 68 ft

Pump placement from TOC 68 ft

Well Information:

Well ID PZ-39
Well diameter 2 in
Well Total Depth 68.45 ft
Screen Length 10 ft
Depth to Water 24.72 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.2462198 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 3.4 in
Total Volume Pumped 4.5 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%	+/- 0		+/- 10%	+/- 10
Last 5	13:45:03	600.01	25.83	6.28	108.92	2.09	25.00	0.40	179.30
Last 5	13:50:03	900.01	25.27	6.33	109.32	3.81	25.00	0.27	177.77
Last 5	13:55:03	1200.00	26.05	6.40	108.65	3.98	25.00	0.23	176.94
Last 5	14:00:03	1500.00	25.70	6.38	107.90	3.85	25.00	0.21	182.51
Last 5	14:05:03	1800.00	24.83	6.40	107.87	4.07	25.00	0.20	184.36
Variance 0			0.79	0.07	-0.67			-0.04	-0.83
Variance 1			-0.36	-0.02	-0.75			-0.02	5.58
Variance 2			-0.87	0.02	-0.03			-0.01	1.85

Notes

Sunny,80s, sample time-1405

Grab Samples

Product Name: Low-Flow System

Date: 2017-10-12 11:07:29

Project Information:

Operator Name J Berisford
Company Name Atlantic Coast Consulting
Project Name Plant Yates- Phase 2
Site Name Plant Yates-Phase 2-CCR
Latitude 33° 27' 0.5"
Longitude -84° -53' -53.46"
Sonde SN 466058
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type Peristaltic Pump
Tubing Type poly
Tubing Diameter .17 in
Tubing Length 48 ft

Pump placement from TOC 43 ft

Well Information:

Well ID PZ-40
Well diameter 2 in
Well Total Depth 48.17 ft
Screen Length 10 ft
Depth to Water 27.5 ft

Pumping Information:

Final Pumping Rate 120 mL/min
Total System Volume 0.2462198 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 6 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%	+/- 0		+/- 10%	+/- 10
Last 5	10:45:15	600.02	22.38	5.53	72.50	0.69	28.00	3.98	14.03
Last 5	10:50:15	900.02	22.47	5.50	72.02	0.83	28.00	3.93	13.44
Last 5	10:55:15	1200.01	22.49	5.47	72.12	1.04	28.00	3.91	14.25
Last 5	11:00:16	1501.01	22.58	5.44	72.59	1.19	28.00	3.90	15.51
Last 5	11:05:16	1801.00	22.91	5.43	73.00	0.90	28.00	3.85	17.24
Variance 0			0.03	-0.03	0.11			-0.03	0.81
Variance 1			0.09	-0.02	0.46			-0.01	1.26
Variance 2			0.34	-0.01	0.41			-0.05	1.74

Notes

Sunny,80s, sample time - 1105

Grab Samples

Product Name: Low-Flow System

Date: 2017-10-12 13:42:39

Project Information:

Operator Name J Berisford
Company Name Atlantic Coast Consulting
Project Name Plant Yates- Phase 2
Site Name Plant Yates-Phase 2-CCR
Latitude 33° 27' 7.88"
Longitude -84° -53' -55.58"
Sonde SN 466058
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type Peristaltic Pump
Tubing Type poly
Tubing Diameter .17 in
Tubing Length 67(ft)

Pump placement from TOC 62(Bt)

Well Information:

Well ID PZ-41
Well diameter 2 in
Well Total Depth 67.7 ft
Screen Length 10 ft
Depth to Water 28.54 ft

Pumping Information:

Final Pumping Rate 90 mL/min
Total System Volume 0.2462198 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 5.5 in
Total Volume Pumped 5.4 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%	+/- 0		+/- 10%	+/- 10
Last 5	13:20:02	2399.98	22.76	5.16	843.89	3.83	29.00	0.17	36.97
Last 5	13:25:02	2699.98	22.71	5.08	844.07	3.11	29.00	0.17	40.15
Last 5	13:30:05	3002.98	22.82	5.01	845.41	2.78	29.00	0.17	43.05
Last 5	13:35:08	3305.98	22.72	4.96	846.70	2.38	29.00	0.18	46.19
Last 5	13:40:08	3605.97	22.87	4.94	845.66	3.13	29.00	0.19	48.98
Variance 0			0.11	-0.07	1.33			-0.00	2.90
Variance 1			-0.10	-0.05	1.29			0.01	3.13
Variance 2			0.15	-0.02	-1.04			0.01	2.79

Notes

Sunny, 80s, sample time-1340,FB-1-11-12-17

Grab Samples



PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Laboratory Report

Prepared For:

**Georgia Power
2480 Maner Road
Atlanta, GA 30339**

Attention: Mr. Joju Abraham

Report Number: AAJ0483

November 02, 2017

Project: CCR Event

Project #: Plant Yates

We appreciate the opportunity to provide the analytical support for your project. The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Approved:

A handwritten signature in black ink that reads "Betsy McDaniel" written over a horizontal line.

Project Manager

This report may not be reproduced, except in full, without written approval from Pace Analytical Services, LLC.
All test results relate only to the samples analyzed.



PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

November 02, 2017

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
PZ-39	AAJ0483-01	Ground Water	10/11/17 14:05	10/13/17 15:20
YGWC-42	AAJ0483-02	Ground Water	10/12/17 14:20	10/13/17 15:20
YGWC-43	AAJ0483-03	Ground Water	10/12/17 15:10	10/13/17 15:20
PZ-37	AAJ0483-04	Ground Water	10/12/17 09:45	10/13/17 15:20
PZ-38	AAJ0483-05	Ground Water	10/12/17 16:25	10/13/17 15:20
PZ-40	AAJ0483-06	Ground Water	10/12/17 11:05	10/13/17 15:20
PZ-41	AAJ0483-07	Ground Water	10/12/17 13:40	10/13/17 15:20
EB-2-10-12-17	AAJ0483-08	Water	10/12/17 16:55	10/13/17 15:20
FB-1-10-12-17	AAJ0483-09	Water	10/12/17 13:20	10/13/17 15:20
Dup-2	AAJ0483-10	Ground Water	10/12/17 00:00	10/13/17 15:20
FB-2-10-12-17	AAJ0483-11	Water	10/12/17 15:00	10/13/17 15:20



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Atlanta GA, 30339

Attention: Mr. Joju Abraham

November 02, 2017

Case Narrative

The Radium analysis by methods EPA 9315/9320 was performed by Pace-Pittsburgh, 1638 Roseytown Road - Suites 2, 3, 4, Greensburg PA 15601. The Pace-Pittsburgh lab contact is Jacquelyn Collins at 724-850-5612.



PACE ANALYTICAL SERVICES, LLC.

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Georgia Power
 2480 Maner Road
 Atlanta GA, 30339

Attention: Mr. Joju Abraham

November 02, 2017

Report No.: AAJ0483

Project: CCR Event

Client ID: PZ-39

Lab Number ID: AAJ0483-01

Date/Time Sampled: 10/11/2017 2:05:00PM

Date/Time Received: 10/13/2017 3:20:00PM

Matrix: Ground Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	68	25	10	mg/L	SM 2540 C		1	10/16/17 18:30	10/16/17 18:30	7100447	JPT
Inorganic Anions											
Chloride	2.4	0.25	0.02	mg/L	EPA 300.0		1	10/23/17 09:23	10/23/17 19:52	7100650	RLC
Fluoride	ND	0.30	0.03	mg/L	EPA 300.0		1	10/23/17 09:23	10/23/17 19:52	7100650	RLC
Sulfate	20	1.0	0.02	mg/L	EPA 300.0		1	10/23/17 09:23	10/23/17 19:52	7100650	RLC
Metals, Total											
Antimony	0.0006	0.0030	0.0006	mg/L	EPA 6020B	J	1	10/18/17 09:05	10/20/17 18:34	7100508	CSW
Arsenic	0.0009	0.0050	0.0005	mg/L	EPA 6020B	J	1	10/18/17 09:05	10/20/17 18:34	7100508	CSW
Barium	0.0092	0.0100	0.0004	mg/L	EPA 6020B	J	1	10/18/17 09:05	10/20/17 18:34	7100508	CSW
Beryllium	ND	0.0030	0.00009	mg/L	EPA 6020B		1	10/18/17 09:05	10/20/17 18:34	7100508	CSW
Boron	0.0135	0.0400	0.0060	mg/L	EPA 6020B	J	1	10/18/17 09:05	11/01/17 21:02	7100508	CSW
Cadmium	ND	0.0010	0.0001	mg/L	EPA 6020B		1	10/18/17 09:05	10/20/17 18:34	7100508	CSW
Calcium	2.74	0.500	0.0404	mg/L	EPA 6020B		1	10/18/17 09:05	10/20/17 18:34	7100508	CSW
Chromium	ND	0.0100	0.0005	mg/L	EPA 6020B		1	10/18/17 09:05	10/20/17 18:34	7100508	CSW
Cobalt	ND	0.0100	0.0003	mg/L	EPA 6020B		1	10/18/17 09:05	10/20/17 18:34	7100508	CSW
Lead	0.0001	0.0050	0.00007	mg/L	EPA 6020B	J	1	10/18/17 09:05	10/20/17 18:34	7100508	CSW
Molybdenum	0.0094	0.0100	0.0010	mg/L	EPA 6020B	J	1	10/18/17 09:05	10/20/17 18:34	7100508	CSW
Selenium	ND	0.0100	0.0018	mg/L	EPA 6020B		1	10/18/17 09:05	10/20/17 18:34	7100508	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	10/18/17 09:05	10/20/17 18:34	7100508	CSW
Lithium	0.0018	0.0500	0.0015	mg/L	EPA 6020B	J	1	10/18/17 09:05	10/20/17 18:34	7100508	CSW
Mercury	ND	0.00050	0.000036	mg/L	EPA 7470A		1	10/17/17 15:50	10/18/17 12:38	7100459	MTC



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Georgia Power
 2480 Maner Road
 Atlanta GA, 30339

November 02, 2017

Attention: Mr. Joju Abraham

Report No.: AAJ0483

Project: CCR Event

Client ID: YGWC-42

Lab Number ID: AAJ0483-02

Date/Time Sampled: 10/12/2017 2:20:00PM

Date/Time Received: 10/13/2017 3:20:00PM

Matrix: Ground Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	1600	25	10	mg/L	SM 2540 C		1	10/18/17 18:15	10/18/17 18:15	7100531	JPT
Inorganic Anions											
Chloride	4.3	0.25	0.02	mg/L	EPA 300.0		1	10/23/17 09:23	10/23/17 20:13	7100650	RLC
Fluoride	ND	0.30	0.03	mg/L	EPA 300.0		1	10/23/17 09:23	10/23/17 20:13	7100650	RLC
Sulfate	1100	100	1.7	mg/L	EPA 300.0		100	10/23/17 09:23	10/25/17 00:41	7100650	RLC
Metals, Total											
Antimony	ND	0.0030	0.0006	mg/L	EPA 6020B		1	10/18/17 09:05	10/20/17 18:57	7100508	CSW
Arsenic	0.0031	0.0050	0.0005	mg/L	EPA 6020B	J	1	10/18/17 09:05	10/20/17 18:57	7100508	CSW
Barium	0.0429	0.0100	0.0004	mg/L	EPA 6020B		1	10/18/17 09:05	10/20/17 18:57	7100508	CSW
Beryllium	ND	0.0030	0.00009	mg/L	EPA 6020B		1	10/18/17 09:05	10/20/17 18:57	7100508	CSW
Boron	20.0	2.00	0.298	mg/L	EPA 6020B		50	10/18/17 09:05	11/01/17 21:08	7100508	CSW
Cadmium	0.0006	0.0010	0.0001	mg/L	EPA 6020B	J	1	10/18/17 09:05	10/20/17 18:57	7100508	CSW
Calcium	144	25.0	2.02	mg/L	EPA 6020B		50	10/18/17 09:05	10/20/17 19:02	7100508	CSW
Chromium	ND	0.0100	0.0005	mg/L	EPA 6020B		1	10/18/17 09:05	10/20/17 18:57	7100508	CSW
Cobalt	0.0017	0.0100	0.0003	mg/L	EPA 6020B	J	1	10/18/17 09:05	10/20/17 18:57	7100508	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	10/18/17 09:05	10/20/17 18:57	7100508	CSW
Molybdenum	ND	0.0100	0.0010	mg/L	EPA 6020B		1	10/18/17 09:05	10/20/17 18:57	7100508	CSW
Selenium	0.0594	0.0100	0.0018	mg/L	EPA 6020B		1	10/18/17 09:05	10/20/17 18:57	7100508	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	10/18/17 09:05	10/20/17 18:57	7100508	CSW
Lithium	0.0331	0.0500	0.0015	mg/L	EPA 6020B	J	1	10/18/17 09:05	10/20/17 18:57	7100508	CSW
Mercury	ND	0.00050	0.000036	mg/L	EPA 7470A		1	10/17/17 15:50	10/18/17 12:40	7100459	MTC



PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
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 (770) 734-4200 FAX (770) 734-4201

Georgia Power
 2480 Maner Road
 Atlanta GA, 30339

November 02, 2017

Attention: Mr. Joju Abraham

Report No.: AAJ0483

Project: CCR Event

Client ID: YGWC-43

Lab Number ID: AAJ0483-03

Date/Time Sampled: 10/12/2017 3:10:00PM

Date/Time Received: 10/13/2017 3:20:00PM

Matrix: Ground Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	287	25	10	mg/L	SM 2540 C		1	10/18/17 18:15	10/18/17 18:15	7100531	JPT
Inorganic Anions											
Chloride	1.6	0.25	0.02	mg/L	EPA 300.0		1	10/23/17 09:23	10/23/17 20:34	7100650	RLC
Fluoride	0.10	0.30	0.03	mg/L	EPA 300.0	J	1	10/23/17 09:23	10/23/17 20:34	7100650	RLC
Sulfate	120	10	0.17	mg/L	EPA 300.0		10	10/23/17 09:23	10/25/17 01:03	7100650	RLC
Metals, Total											
Antimony	ND	0.0030	0.0006	mg/L	EPA 6020B		1	10/18/17 09:05	10/20/17 19:08	7100508	CSW
Arsenic	ND	0.0050	0.0005	mg/L	EPA 6020B		1	10/18/17 09:05	10/20/17 19:08	7100508	CSW
Barium	0.0205	0.0100	0.0004	mg/L	EPA 6020B		1	10/18/17 09:05	10/20/17 19:08	7100508	CSW
Beryllium	0.0001	0.0030	0.00009	mg/L	EPA 6020B	J	1	10/18/17 09:05	10/20/17 19:08	7100508	CSW
Boron	1.15	0.400	0.0595	mg/L	EPA 6020B		10	10/18/17 09:05	11/02/17 14:47	7100508	CSW
Cadmium	ND	0.0010	0.0001	mg/L	EPA 6020B		1	10/18/17 09:05	10/20/17 19:08	7100508	CSW
Calcium	7.05	0.500	0.0404	mg/L	EPA 6020B		1	10/18/17 09:05	10/20/17 19:08	7100508	CSW
Chromium	ND	0.0100	0.0005	mg/L	EPA 6020B		1	10/18/17 09:05	10/20/17 19:08	7100508	CSW
Cobalt	0.0006	0.0100	0.0003	mg/L	EPA 6020B	J	1	10/18/17 09:05	10/20/17 19:08	7100508	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	10/18/17 09:05	10/20/17 19:08	7100508	CSW
Molybdenum	ND	0.0100	0.0010	mg/L	EPA 6020B		1	10/18/17 09:05	10/20/17 19:08	7100508	CSW
Selenium	ND	0.0100	0.0018	mg/L	EPA 6020B		1	10/18/17 09:05	10/20/17 19:08	7100508	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	10/18/17 09:05	10/20/17 19:08	7100508	CSW
Lithium	0.0130	0.0500	0.0015	mg/L	EPA 6020B	J	1	10/18/17 09:05	10/20/17 19:08	7100508	CSW
Mercury	ND	0.00050	0.000036	mg/L	EPA 7470A		1	10/17/17 15:50	10/18/17 12:42	7100459	MTC



PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
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Georgia Power
 2480 Maner Road
 Atlanta GA, 30339

November 02, 2017

Attention: Mr. Joju Abraham

Report No.: AAJ0483

Project: CCR Event

Client ID: PZ-37

Lab Number ID: AAJ0483-04

Date/Time Sampled: 10/12/2017 9:45:00AM

Date/Time Received: 10/13/2017 3:20:00PM

Matrix: Ground Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	1060	25	10	mg/L	SM 2540 C		1	10/18/17 18:15	10/18/17 18:15	7100531	JPT
Inorganic Anions											
Chloride	5.4	0.25	0.02	mg/L	EPA 300.0		1	10/23/17 09:23	10/23/17 21:36	7100650	RLC
Fluoride	ND	0.30	0.03	mg/L	EPA 300.0		1	10/23/17 09:23	10/23/17 21:36	7100650	RLC
Sulfate	650	50	0.85	mg/L	EPA 300.0		50	10/23/17 09:23	10/25/17 01:25	7100650	RLC
Metals, Total											
Antimony	ND	0.0030	0.0006	mg/L	EPA 6020B		1	10/18/17 09:05	10/20/17 19:19	7100508	CSW
Arsenic	0.0014	0.0050	0.0005	mg/L	EPA 6020B	J	1	10/18/17 09:05	10/20/17 19:19	7100508	CSW
Barium	0.0640	0.0100	0.0004	mg/L	EPA 6020B		1	10/18/17 09:05	10/20/17 19:19	7100508	CSW
Beryllium	0.0004	0.0030	0.00009	mg/L	EPA 6020B	J	1	10/18/17 09:05	10/20/17 19:19	7100508	CSW
Boron	15.4	2.00	0.298	mg/L	EPA 6020B		50	10/18/17 09:05	11/01/17 20:19	7100508	CSW
Cadmium	0.0002	0.0010	0.0001	mg/L	EPA 6020B	J	1	10/18/17 09:05	10/20/17 19:19	7100508	CSW
Calcium	122	25.0	2.02	mg/L	EPA 6020B		50	10/18/17 09:05	10/20/17 19:25	7100508	CSW
Chromium	0.0019	0.0100	0.0005	mg/L	EPA 6020B	J	1	10/18/17 09:05	10/20/17 19:19	7100508	CSW
Cobalt	0.0078	0.0100	0.0003	mg/L	EPA 6020B	J	1	10/18/17 09:05	10/20/17 19:19	7100508	CSW
Lead	0.0002	0.0050	0.00007	mg/L	EPA 6020B	J	1	10/18/17 09:05	10/20/17 19:19	7100508	CSW
Molybdenum	0.0022	0.0100	0.0010	mg/L	EPA 6020B	J	1	10/18/17 09:05	10/20/17 19:19	7100508	CSW
Selenium	0.234	0.0100	0.0018	mg/L	EPA 6020B		1	10/18/17 09:05	10/20/17 19:19	7100508	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	10/18/17 09:05	10/20/17 19:19	7100508	CSW
Lithium	0.0271	0.0500	0.0015	mg/L	EPA 6020B	J	1	10/18/17 09:05	10/20/17 19:19	7100508	CSW
Mercury	ND	0.00050	0.000036	mg/L	EPA 7470A		1	10/17/17 15:50	10/18/17 12:45	7100459	MTC



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Georgia Power
 2480 Maner Road
 Atlanta GA, 30339

Attention: Mr. Joju Abraham

November 02, 2017

Report No.: AAJ0483

Project: CCR Event

Client ID: PZ-38

Lab Number ID: AAJ0483-05

Date/Time Sampled: 10/12/2017 4:25:00PM

Date/Time Received: 10/13/2017 3:20:00PM

Matrix: Ground Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	1360	25	10	mg/L	SM 2540 C		1	10/18/17 18:15	10/18/17 18:15	7100531	JPT
Inorganic Anions											
Chloride	6.0	0.25	0.02	mg/L	EPA 300.0		1	10/23/17 09:23	10/23/17 21:56	7100650	RLC
Fluoride	ND	0.30	0.03	mg/L	EPA 300.0		1	10/23/17 09:23	10/23/17 21:56	7100650	RLC
Sulfate	940	50	0.85	mg/L	EPA 300.0		50	10/23/17 09:23	10/25/17 01:46	7100650	RLC
Metals, Total											
Antimony	ND	0.0030	0.0006	mg/L	EPA 6020B		1	10/18/17 09:05	10/20/17 19:31	7100508	CSW
Arsenic	0.0023	0.0050	0.0005	mg/L	EPA 6020B	J	1	10/18/17 09:05	10/20/17 19:31	7100508	CSW
Barium	0.0269	0.0100	0.0004	mg/L	EPA 6020B		1	10/18/17 09:05	10/20/17 19:31	7100508	CSW
Beryllium	0.0057	0.0030	0.00009	mg/L	EPA 6020B		1	10/18/17 09:05	10/20/17 19:31	7100508	CSW
Boron	19.3	2.00	0.298	mg/L	EPA 6020B		50	10/18/17 09:05	11/01/17 21:25	7100508	CSW
Cadmium	0.0030	0.0010	0.0001	mg/L	EPA 6020B		1	10/18/17 09:05	10/20/17 19:31	7100508	CSW
Calcium	190	25.0	2.02	mg/L	EPA 6020B		50	10/18/17 09:05	10/20/17 19:37	7100508	CSW
Chromium	0.0005	0.0100	0.0005	mg/L	EPA 6020B	J	1	10/18/17 09:05	10/20/17 19:31	7100508	CSW
Cobalt	ND	0.0100	0.0003	mg/L	EPA 6020B		1	10/18/17 09:05	10/20/17 19:31	7100508	CSW
Lead	0.0001	0.0050	0.00007	mg/L	EPA 6020B	J	1	10/18/17 09:05	10/20/17 19:31	7100508	CSW
Molybdenum	ND	0.0100	0.0010	mg/L	EPA 6020B		1	10/18/17 09:05	10/20/17 19:31	7100508	CSW
Selenium	0.265	0.0100	0.0018	mg/L	EPA 6020B		1	10/18/17 09:05	10/20/17 19:31	7100508	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	10/18/17 09:05	10/20/17 19:31	7100508	CSW
Lithium	0.0095	0.0500	0.0015	mg/L	EPA 6020B	J	1	10/18/17 09:05	10/20/17 19:31	7100508	CSW
Mercury	ND	0.00050	0.000036	mg/L	EPA 7470A		1	10/17/17 15:50	10/18/17 12:47	7100459	MTC



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November 02, 2017

Attention: Mr. Joju Abraham

Report No.: AAJ0483

Project: CCR Event

Client ID: PZ-40

Lab Number ID: AAJ0483-06

Date/Time Sampled: 10/12/2017 11:05:00AM

Date/Time Received: 10/13/2017 3:20:00PM

Matrix: Ground Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	74	25	10	mg/L	SM 2540 C		1	10/18/17 18:15	10/18/17 18:15	7100531	JPT
Inorganic Anions											
Chloride	3.8	0.25	0.02	mg/L	EPA 300.0		1	10/23/17 09:23	10/23/17 23:40	7100650	RLC
Fluoride	ND	0.30	0.03	mg/L	EPA 300.0		1	10/23/17 09:23	10/23/17 23:40	7100650	RLC
Sulfate	17	1.0	0.02	mg/L	EPA 300.0		1	10/23/17 09:23	10/23/17 23:40	7100650	RLC
Metals, Total											
Antimony	ND	0.0030	0.0006	mg/L	EPA 6020B		1	10/18/17 09:05	10/20/17 19:42	7100508	CSW
Arsenic	ND	0.0050	0.0005	mg/L	EPA 6020B		1	10/18/17 09:05	10/20/17 19:42	7100508	CSW
Barium	0.0328	0.0100	0.0004	mg/L	EPA 6020B		1	10/18/17 09:05	10/20/17 19:42	7100508	CSW
Beryllium	0.0002	0.0030	0.00009	mg/L	EPA 6020B	J	1	10/18/17 09:05	10/20/17 19:42	7100508	CSW
Boron	0.0401	0.0400	0.0060	mg/L	EPA 6020B		1	10/18/17 09:05	11/01/17 21:30	7100508	CSW
Cadmium	ND	0.0010	0.0001	mg/L	EPA 6020B		1	10/18/17 09:05	10/20/17 19:42	7100508	CSW
Calcium	2.90	0.500	0.0404	mg/L	EPA 6020B		1	10/18/17 09:05	10/20/17 19:42	7100508	CSW
Chromium	ND	0.0100	0.0005	mg/L	EPA 6020B		1	10/18/17 09:05	10/20/17 19:42	7100508	CSW
Cobalt	ND	0.0100	0.0003	mg/L	EPA 6020B		1	10/18/17 09:05	10/20/17 19:42	7100508	CSW
Lead	0.00009	0.0050	0.00007	mg/L	EPA 6020B	J	1	10/18/17 09:05	10/20/17 19:42	7100508	CSW
Molybdenum	ND	0.0100	0.0010	mg/L	EPA 6020B		1	10/18/17 09:05	10/20/17 19:42	7100508	CSW
Selenium	ND	0.0100	0.0018	mg/L	EPA 6020B		1	10/18/17 09:05	10/20/17 19:42	7100508	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	10/18/17 09:05	10/20/17 19:42	7100508	CSW
Lithium	ND	0.0500	0.0015	mg/L	EPA 6020B		1	10/18/17 09:05	10/20/17 19:42	7100508	CSW
Mercury	ND	0.00050	0.000036	mg/L	EPA 7470A		1	10/17/17 15:50	10/18/17 12:49	7100459	MTC



PACE ANALYTICAL SERVICES, LLC.

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Georgia Power
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 Atlanta GA, 30339

November 02, 2017

Attention: Mr. Joju Abraham

Report No.: AAJ0483

Project: CCR Event

Client ID: PZ-41

Lab Number ID: AAJ0483-07

Date/Time Sampled: 10/12/2017 1:40:00PM

Date/Time Received: 10/13/2017 3:20:00PM

Matrix: Ground Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	636	25	10	mg/L	SM 2540 C		1	10/18/17 18:15	10/18/17 18:15	7100531	JPT
Inorganic Anions											
Chloride	3.1	0.25	0.02	mg/L	EPA 300.0		1	10/23/17 09:23	10/24/17 00:00	7100650	RLC
Fluoride	ND	0.30	0.03	mg/L	EPA 300.0		1	10/23/17 09:23	10/24/17 00:00	7100650	RLC
Sulfate	400	20	0.34	mg/L	EPA 300.0		20	10/23/17 09:23	10/25/17 02:08	7100650	RLC
Metals, Total											
Antimony	ND	0.0030	0.0006	mg/L	EPA 6020B		1	10/18/17 09:05	10/20/17 20:05	7100508	CSW
Arsenic	0.0011	0.0050	0.0005	mg/L	EPA 6020B	J	1	10/18/17 09:05	10/20/17 20:05	7100508	CSW
Barium	0.0394	0.0100	0.0004	mg/L	EPA 6020B		1	10/18/17 09:05	10/20/17 20:05	7100508	CSW
Beryllium	0.0036	0.0030	0.00009	mg/L	EPA 6020B		1	10/18/17 09:05	10/20/17 20:05	7100508	CSW
Boron	12.0	2.00	0.298	mg/L	EPA 6020B		50	10/18/17 09:05	11/01/17 21:36	7100508	CSW
Cadmium	0.0002	0.0010	0.0001	mg/L	EPA 6020B	J	1	10/18/17 09:05	10/20/17 20:05	7100508	CSW
Calcium	44.5	25.0	2.02	mg/L	EPA 6020B		50	10/18/17 09:05	10/20/17 20:11	7100508	CSW
Chromium	ND	0.0100	0.0005	mg/L	EPA 6020B		1	10/18/17 09:05	10/20/17 20:05	7100508	CSW
Cobalt	0.0011	0.0100	0.0003	mg/L	EPA 6020B	J	1	10/18/17 09:05	10/20/17 20:05	7100508	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	10/18/17 09:05	10/20/17 20:05	7100508	CSW
Molybdenum	ND	0.0100	0.0010	mg/L	EPA 6020B		1	10/18/17 09:05	10/20/17 20:05	7100508	CSW
Selenium	0.0191	0.0100	0.0018	mg/L	EPA 6020B		1	10/18/17 09:05	10/20/17 20:05	7100508	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	10/18/17 09:05	10/20/17 20:05	7100508	CSW
Lithium	0.0040	0.0500	0.0015	mg/L	EPA 6020B	J	1	10/18/17 09:05	10/20/17 20:05	7100508	CSW
Mercury	ND	0.00050	0.000036	mg/L	EPA 7470A		1	10/17/17 15:50	10/18/17 12:52	7100459	MTC



PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
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 Atlanta GA, 30339

Attention: Mr. Joju Abraham

November 02, 2017

Report No.: AAJ0483

Project: CCR Event

Client ID: EB-2-10-12-17

Lab Number ID: AAJ0483-08

Date/Time Sampled: 10/12/2017 4:55:00PM

Date/Time Received: 10/13/2017 3:20:00PM

Matrix: Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	ND	25	10	mg/L	SM 2540 C		1	10/18/17 18:15	10/18/17 18:15	7100531	JPT
Inorganic Anions											
Chloride	0.02	0.25	0.02	mg/L	EPA 300.0	J	1	10/23/17 09:23	10/24/17 00:21	7100650	RLC
Fluoride	0.22	0.30	0.03	mg/L	EPA 300.0	J	1	10/23/17 09:23	10/24/17 00:21	7100650	RLC
Sulfate	0.14	1.0	0.02	mg/L	EPA 300.0	J	1	10/23/17 09:23	10/24/17 00:21	7100650	RLC
Metals, Total											
Antimony	ND	0.0030	0.0006	mg/L	EPA 6020B		1	10/18/17 09:05	10/20/17 20:17	7100508	CSW
Arsenic	0.0010	0.0050	0.0005	mg/L	EPA 6020B	J	1	10/18/17 09:05	10/20/17 20:17	7100508	CSW
Barium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	10/18/17 09:05	10/20/17 20:17	7100508	CSW
Beryllium	ND	0.0030	0.00009	mg/L	EPA 6020B		1	10/18/17 09:05	10/20/17 20:17	7100508	CSW
Boron	ND	0.0400	0.0060	mg/L	EPA 6020B		1	10/18/17 09:05	11/01/17 21:42	7100508	CSW
Cadmium	ND	0.0010	0.0001	mg/L	EPA 6020B		1	10/18/17 09:05	10/20/17 20:17	7100508	CSW
Calcium	ND	0.500	0.0404	mg/L	EPA 6020B		1	10/18/17 09:05	10/20/17 20:17	7100508	CSW
Chromium	ND	0.0100	0.0005	mg/L	EPA 6020B		1	10/18/17 09:05	10/20/17 20:17	7100508	CSW
Cobalt	ND	0.0100	0.0003	mg/L	EPA 6020B		1	10/18/17 09:05	10/20/17 20:17	7100508	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	10/18/17 09:05	10/20/17 20:17	7100508	CSW
Molybdenum	ND	0.0100	0.0010	mg/L	EPA 6020B		1	10/18/17 09:05	10/20/17 20:17	7100508	CSW
Selenium	ND	0.0100	0.0018	mg/L	EPA 6020B		1	10/18/17 09:05	10/20/17 20:17	7100508	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	10/18/17 09:05	10/20/17 20:17	7100508	CSW
Lithium	ND	0.0500	0.0015	mg/L	EPA 6020B		1	10/18/17 09:05	10/20/17 20:17	7100508	CSW
Mercury	ND	0.00050	0.000036	mg/L	EPA 7470A		1	10/17/17 15:50	10/18/17 12:54	7100459	MTC



PACE ANALYTICAL SERVICES, LLC.

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Attention: Mr. Joju Abraham

November 02, 2017

Report No.: AAJ0483

Project: CCR Event

Client ID: FB-1-10-12-17

Lab Number ID: AAJ0483-09

Date/Time Sampled: 10/12/2017 1:20:00PM

Date/Time Received: 10/13/2017 3:20:00PM

Matrix: Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	ND	25	10	mg/L	SM 2540 C		1	10/18/17 18:15	10/18/17 18:15	7100531	JPT
Inorganic Anions											
Chloride	0.03	0.25	0.02	mg/L	EPA 300.0	J	1	10/23/17 09:23	10/24/17 00:42	7100650	RLC
Fluoride	0.63	0.30	0.03	mg/L	EPA 300.0		1	10/23/17 09:23	10/24/17 00:42	7100650	RLC
Sulfate	0.02	1.0	0.02	mg/L	EPA 300.0	J	1	10/23/17 09:23	10/24/17 00:42	7100650	RLC
Metals, Total											
Antimony	ND	0.0030	0.0006	mg/L	EPA 6020B		1	10/18/17 09:05	10/20/17 20:22	7100508	CSW
Arsenic	0.0008	0.0050	0.0005	mg/L	EPA 6020B	J	1	10/18/17 09:05	10/20/17 20:22	7100508	CSW
Barium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	10/18/17 09:05	10/20/17 20:22	7100508	CSW
Beryllium	ND	0.0030	0.00009	mg/L	EPA 6020B		1	10/18/17 09:05	10/20/17 20:22	7100508	CSW
Boron	0.0313	0.0400	0.0060	mg/L	EPA 6020B	J	1	10/18/17 09:05	10/20/17 20:22	7100508	CSW
Cadmium	ND	0.0010	0.0001	mg/L	EPA 6020B		1	10/18/17 09:05	10/20/17 20:22	7100508	CSW
Calcium	ND	0.500	0.0404	mg/L	EPA 6020B		1	10/18/17 09:05	10/20/17 20:22	7100508	CSW
Chromium	ND	0.0100	0.0005	mg/L	EPA 6020B		1	10/18/17 09:05	10/20/17 20:22	7100508	CSW
Cobalt	ND	0.0100	0.0003	mg/L	EPA 6020B		1	10/18/17 09:05	10/20/17 20:22	7100508	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	10/18/17 09:05	10/20/17 20:22	7100508	CSW
Molybdenum	ND	0.0100	0.0010	mg/L	EPA 6020B		1	10/18/17 09:05	10/20/17 20:22	7100508	CSW
Selenium	ND	0.0100	0.0018	mg/L	EPA 6020B		1	10/18/17 09:05	10/20/17 20:22	7100508	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	10/18/17 09:05	10/20/17 20:22	7100508	CSW
Lithium	ND	0.0500	0.0015	mg/L	EPA 6020B		1	10/18/17 09:05	10/20/17 20:22	7100508	CSW
Mercury	ND	0.00050	0.000036	mg/L	EPA 7470A		1	10/17/17 15:50	10/18/17 12:57	7100459	MTC



PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
 110 Technology Parkway, Peachtree Corners, GA 30092
 (770) 734-4200 FAX (770) 734-4201

Georgia Power
 2480 Maner Road
 Atlanta GA, 30339

November 02, 2017

Attention: Mr. Joju Abraham

Report No.: AAJ0483

Project: CCR Event

Client ID: Dup-2

Lab Number ID: AAJ0483-10

Date/Time Sampled: 10/12/2017 12:00:00AM

Date/Time Received: 10/13/2017 3:20:00PM

Matrix: Ground Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	1380	25	10	mg/L	SM 2540 C		1	10/18/17 18:15	10/18/17 18:15	7100531	JPT
Inorganic Anions											
Chloride	6.1	0.25	0.02	mg/L	EPA 300.0		1	10/23/17 09:23	10/24/17 01:02	7100650	RLC
Fluoride	ND	0.30	0.03	mg/L	EPA 300.0		1	10/23/17 09:23	10/24/17 01:02	7100650	RLC
Sulfate	930	50	0.85	mg/L	EPA 300.0		50	10/23/17 09:23	10/25/17 02:29	7100650	RLC
Metals, Total											
Antimony	ND	0.0030	0.0006	mg/L	EPA 6020B		1	10/18/17 09:05	10/20/17 20:28	7100508	CSW
Arsenic	0.0024	0.0050	0.0005	mg/L	EPA 6020B	J	1	10/18/17 09:05	10/20/17 20:28	7100508	CSW
Barium	0.0264	0.0100	0.0004	mg/L	EPA 6020B		1	10/18/17 09:05	10/20/17 20:28	7100508	CSW
Beryllium	0.0058	0.0030	0.00009	mg/L	EPA 6020B		1	10/18/17 09:05	10/20/17 20:28	7100508	CSW
Boron	19.2	2.00	0.298	mg/L	EPA 6020B		50	10/18/17 09:05	11/01/17 21:48	7100508	CSW
Cadmium	0.0028	0.0010	0.0001	mg/L	EPA 6020B		1	10/18/17 09:05	10/20/17 20:28	7100508	CSW
Calcium	190	25.0	2.02	mg/L	EPA 6020B		50	10/18/17 09:05	10/20/17 20:34	7100508	CSW
Chromium	ND	0.0100	0.0005	mg/L	EPA 6020B		1	10/18/17 09:05	10/20/17 20:28	7100508	CSW
Cobalt	ND	0.0100	0.0003	mg/L	EPA 6020B		1	10/18/17 09:05	10/20/17 20:28	7100508	CSW
Lead	0.0001	0.0050	0.00007	mg/L	EPA 6020B	J	1	10/18/17 09:05	10/20/17 20:28	7100508	CSW
Molybdenum	ND	0.0100	0.0010	mg/L	EPA 6020B		1	10/18/17 09:05	10/20/17 20:28	7100508	CSW
Selenium	0.258	0.0100	0.0018	mg/L	EPA 6020B		1	10/18/17 09:05	10/20/17 20:28	7100508	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	10/18/17 09:05	10/20/17 20:28	7100508	CSW
Lithium	0.0090	0.0500	0.0015	mg/L	EPA 6020B	J	1	10/18/17 09:05	10/20/17 20:28	7100508	CSW
Mercury	ND	0.00050	0.000036	mg/L	EPA 7470A		1	10/17/17 15:50	10/18/17 12:59	7100459	MTC



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Georgia Power
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 Atlanta GA, 30339

Attention: Mr. Joju Abraham

November 02, 2017

Report No.: AAJ0483

Project: CCR Event

Client ID: FB-2-10-12-17

Lab Number ID: AAJ0483-11

Date/Time Sampled: 10/12/2017 3:00:00PM

Date/Time Received: 10/13/2017 3:20:00PM

Matrix: Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	ND	25	10	mg/L	SM 2540 C		1	10/18/17 18:15	10/18/17 18:15	7100531	JPT
Inorganic Anions											
Chloride	0.03	0.25	0.02	mg/L	EPA 300.0	J	1	10/23/17 09:23	10/24/17 01:23	7100650	RLC
Fluoride	1.2	0.30	0.03	mg/L	EPA 300.0		1	10/23/17 09:23	10/24/17 01:23	7100650	RLC
Sulfate	0.82	1.0	0.02	mg/L	EPA 300.0	J	1	10/23/17 09:23	10/24/17 01:23	7100650	RLC
Metals, Total											
Antimony	ND	0.0030	0.0006	mg/L	EPA 6020B		1	10/18/17 09:05	10/20/17 20:39	7100508	CSW
Arsenic	0.0007	0.0050	0.0005	mg/L	EPA 6020B	J	1	10/18/17 09:05	10/20/17 20:39	7100508	CSW
Barium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	10/18/17 09:05	10/20/17 20:39	7100508	CSW
Beryllium	ND	0.0030	0.00009	mg/L	EPA 6020B		1	10/18/17 09:05	10/20/17 20:39	7100508	CSW
Boron	ND	0.0400	0.0060	mg/L	EPA 6020B		1	10/18/17 09:05	11/01/17 21:53	7100508	CSW
Cadmium	ND	0.0010	0.0001	mg/L	EPA 6020B		1	10/18/17 09:05	10/20/17 20:39	7100508	CSW
Calcium	ND	0.500	0.0404	mg/L	EPA 6020B		1	10/18/17 09:05	10/20/17 20:39	7100508	CSW
Chromium	ND	0.0100	0.0005	mg/L	EPA 6020B		1	10/18/17 09:05	10/20/17 20:39	7100508	CSW
Cobalt	ND	0.0100	0.0003	mg/L	EPA 6020B		1	10/18/17 09:05	10/20/17 20:39	7100508	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	10/18/17 09:05	10/20/17 20:39	7100508	CSW
Molybdenum	ND	0.0100	0.0010	mg/L	EPA 6020B		1	10/18/17 09:05	10/20/17 20:39	7100508	CSW
Selenium	ND	0.0100	0.0018	mg/L	EPA 6020B		1	10/18/17 09:05	10/20/17 20:39	7100508	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	10/18/17 09:05	10/20/17 20:39	7100508	CSW
Lithium	ND	0.0500	0.0015	mg/L	EPA 6020B		1	10/18/17 09:05	10/20/17 20:39	7100508	CSW
Mercury	ND	0.00050	0.000036	mg/L	EPA 7470A		1	10/17/17 15:50	10/18/17 13:06	7100459	MTC



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Report No.: AAJ0483

General Chemistry - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7100447 - SM 2540 C											
Blank (7100447-BLK1)						Prepared & Analyzed: 10/16/17					
Total Dissolved Solids	ND	25	10	mg/L							
LCS (7100447-BS1)						Prepared & Analyzed: 10/16/17					
Total Dissolved Solids	384	25	10	mg/L	400.00		96	84-108			
Duplicate (7100447-DUP1)						Source: AAJ0389-11 Prepared & Analyzed: 10/16/17					
Total Dissolved Solids	ND	25	10	mg/L		ND				10	
Duplicate (7100447-DUP2)						Source: AAJ0483-01 Prepared & Analyzed: 10/16/17					
Total Dissolved Solids	69	25	10	mg/L		68			1	10	
Batch 7100531 - SM 2540 C											
Blank (7100531-BLK1)						Prepared & Analyzed: 10/18/17					
Total Dissolved Solids	ND	25	10	mg/L							
LCS (7100531-BS1)						Prepared & Analyzed: 10/18/17					
Total Dissolved Solids	402	25	10	mg/L	400.00		100	84-108			
Duplicate (7100531-DUP1)						Source: AAJ0483-11 Prepared & Analyzed: 10/18/17					
Total Dissolved Solids	ND	25	10	mg/L		ND				10	
Duplicate (7100531-DUP2)						Source: AAJ0490-25 Prepared & Analyzed: 10/18/17					
Total Dissolved Solids	247	25	10	mg/L		245			0.8	10	



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Inorganic Anions - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7100650 - EPA 300.0											
Blank (7100650-BLK1)						Prepared & Analyzed: 10/23/17					
Chloride	ND	0.25	0.02	mg/L							
Fluoride	ND	0.30	0.03	mg/L							
Sulfate	ND	1.0	0.02	mg/L							
LCS (7100650-BS1)						Prepared & Analyzed: 10/23/17					
Chloride	10.4	0.25	0.02	mg/L	10.020		103	90-110			
Fluoride	10.2	0.30	0.03	mg/L	10.020		102	90-110			
Sulfate	10.3	1.0	0.02	mg/L	10.050		103	90-110			
Matrix Spike (7100650-MS1)						Source: AAJ0483-03 Prepared & Analyzed: 10/23/17					
Chloride	12.2	0.25	0.02	mg/L	10.020	1.56	106	90-110			
Fluoride	11.8	0.30	0.03	mg/L	10.020	0.10	117	90-110			QM-05
Sulfate	111	1.0	0.02	mg/L	10.050	114	NR	90-110			QM-02
Matrix Spike (7100650-MS2)						Source: AAJ0490-21 Prepared: 10/23/17 Analyzed: 10/24/17					
Chloride	424	0.25	0.02	mg/L	10.020	596	NR	90-110			QM-02
Fluoride	10.7	0.30	0.03	mg/L	10.020	1.84	88	90-110			QM-02
Sulfate	366	1.0	0.02	mg/L	10.050	387	NR	90-110			QM-02
Matrix Spike Dup (7100650-MSD1)						Source: AAJ0483-03 Prepared & Analyzed: 10/23/17					
Chloride	12.1	0.25	0.02	mg/L	10.020	1.56	106	90-110	0.4	15	
Fluoride	11.9	0.30	0.03	mg/L	10.020	0.10	118	90-110	1	15	QM-05
Sulfate	111	1.0	0.02	mg/L	10.050	114	NR	90-110	0.4	15	QM-02



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Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7100459 - EPA 7470A											
Blank (7100459-BLK1) Prepared: 10/17/17 Analyzed: 10/18/17											
Mercury	ND	0.00050	0.000036	mg/L							
LCS (7100459-BS1) Prepared: 10/17/17 Analyzed: 10/18/17											
Mercury	0.00236	0.00050	0.000036	mg/L	2.5000E-3		94	80-120			
Matrix Spike (7100459-MS1) Source: AAJ0483-01 Prepared: 10/17/17 Analyzed: 10/18/17											
Mercury	0.00233	0.00050	0.000036	mg/L	2.5000E-3	ND	93	75-125			
Matrix Spike Dup (7100459-MSD1) Source: AAJ0483-01 Prepared: 10/17/17 Analyzed: 10/18/17											
Mercury	0.00236	0.00050	0.000036	mg/L	2.5000E-3	ND	95	75-125	1	20	
Post Spike (7100459-PS1) Source: AAJ0483-01 Prepared: 10/17/17 Analyzed: 10/18/17											
Mercury	1.75			ug/L	1.6667	-0.00239	105	80-120			
Batch 7100508 - EPA 3005A											
Blank (7100508-BLK1) Prepared: 10/18/17 Analyzed: 10/20/17											
Antimony	ND	0.0030	0.0006	mg/L							
Arsenic	ND	0.0050	0.0005	mg/L							
Barium	ND	0.0100	0.0004	mg/L							
Beryllium	ND	0.0030	0.00009	mg/L							
Boron	ND	0.0400	0.0060	mg/L							
Cadmium	ND	0.0010	0.0001	mg/L							
Calcium	ND	0.500	0.0404	mg/L							
Chromium	ND	0.0100	0.0005	mg/L							
Cobalt	ND	0.0100	0.0003	mg/L							
Copper	ND	0.0250	0.0003	mg/L							
Lead	ND	0.0050	0.00007	mg/L							
Molybdenum	ND	0.0100	0.0010	mg/L							
Nickel	ND	0.0100	0.0005	mg/L							
Selenium	ND	0.0100	0.0018	mg/L							
Silver	ND	0.0100	0.0002	mg/L							
Thallium	ND	0.0010	0.00005	mg/L							
Vanadium	ND	0.0100	0.0012	mg/L							
Zinc	ND	0.0100	0.0012	mg/L							
Lithium	ND	0.0500	0.0015	mg/L							



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November 02, 2017

Report No.: AAJ0483

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7100508 - EPA 3005A											
LCS (7100508-BS1)						Prepared: 10/18/17 Analyzed: 10/20/17					
Antimony	0.109	0.0030	0.0006	mg/L	0.10000		109	80-120			
Arsenic	0.106	0.0050	0.0005	mg/L	0.10000		106	80-120			
Barium	0.106	0.0100	0.0004	mg/L	0.10000		106	80-120			
Beryllium	0.110	0.0030	0.00009	mg/L	0.10000		110	80-120			
Cadmium	0.105	0.0010	0.0001	mg/L	0.10000		105	80-120			
Chromium	0.105	0.0100	0.0005	mg/L	0.10000		105	80-120			
Cobalt	0.105	0.0100	0.0003	mg/L	0.10000		105	80-120			
Copper	0.106	0.0250	0.0003	mg/L	0.10000		106	80-120			
Lead	0.103	0.0050	0.00007	mg/L	0.10000		103	80-120			
Nickel	0.105	0.0100	0.0005	mg/L	0.10000		105	80-120			
Selenium	0.105	0.0100	0.0018	mg/L	0.10000		105	80-120			
Silver	0.105	0.0100	0.0002	mg/L	0.10000		105	80-120			
Thallium	0.104	0.0010	0.00005	mg/L	0.10000		104	80-120			
Vanadium	0.106	0.0100	0.0012	mg/L	0.10000		106	80-120			
Zinc	0.106	0.0100	0.0012	mg/L	0.10000		106	80-120			
Lithium	0.111	0.0500	0.0015	mg/L	0.10000		111	80-120			
Matrix Spike (7100508-MS1)			Source: AAJ0483-02			Prepared: 10/18/17 Analyzed: 10/20/17					
Antimony	0.111	0.0030	0.0006	mg/L	0.10000	ND	111	75-125			
Arsenic	0.112	0.0050	0.0005	mg/L	0.10000	0.0031	109	75-125			
Barium	0.145	0.0100	0.0004	mg/L	0.10000	0.0429	102	75-125			
Beryllium	0.0971	0.0030	0.00009	mg/L	0.10000	ND	97	75-125			
Cadmium	0.102	0.0010	0.0001	mg/L	0.10000	0.0006	101	75-125			
Chromium	0.109	0.0100	0.0005	mg/L	0.10000	ND	109	75-125			
Cobalt	0.106	0.0100	0.0003	mg/L	0.10000	0.0017	104	75-125			
Copper	0.0977	0.0250	0.0003	mg/L	0.10000	0.0005	97	75-125			
Lead	0.0923	0.0050	0.00007	mg/L	0.10000	ND	92	75-125			
Nickel	0.103	0.0100	0.0005	mg/L	0.10000	0.0043	99	75-125			
Selenium	0.168	0.0100	0.0018	mg/L	0.10000	0.0594	109	75-125			
Silver	0.0963	0.0100	0.0002	mg/L	0.10000	ND	96	75-125			
Thallium	0.0956	0.0010	0.00005	mg/L	0.10000	ND	96	75-125			
Vanadium	0.113	0.0100	0.0012	mg/L	0.10000	ND	113	75-125			
Zinc	0.112	0.0100	0.0012	mg/L	0.10000	0.0078	104	75-125			
Lithium	0.129	0.0500	0.0015	mg/L	0.10000	0.0331	96	75-125			



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November 02, 2017

Report No.: AAJ0483

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7100508 - EPA 3005A											
Matrix Spike Dup (7100508-MSD1)			Source: AAJ0483-02			Prepared: 10/18/17 Analyzed: 10/20/17					
Antimony	0.112	0.0030	0.0006	mg/L	0.10000	ND	112	75-125	2	20	
Arsenic	0.114	0.0050	0.0005	mg/L	0.10000	0.0031	111	75-125	2	20	
Barium	0.146	0.0100	0.0004	mg/L	0.10000	0.0429	103	75-125	1	20	
Beryllium	0.0982	0.0030	0.00009	mg/L	0.10000	ND	98	75-125	1	20	
Cadmium	0.102	0.0010	0.0001	mg/L	0.10000	0.0006	102	75-125	0.9	20	
Chromium	0.108	0.0100	0.0005	mg/L	0.10000	ND	108	75-125	0.7	20	
Cobalt	0.108	0.0100	0.0003	mg/L	0.10000	0.0017	107	75-125	3	20	
Copper	0.0977	0.0250	0.0003	mg/L	0.10000	0.0005	97	75-125	0.009	20	
Lead	0.0924	0.0050	0.00007	mg/L	0.10000	ND	92	75-125	0.1	20	
Nickel	0.105	0.0100	0.0005	mg/L	0.10000	0.0043	100	75-125	2	20	
Selenium	0.169	0.0100	0.0018	mg/L	0.10000	0.0594	110	75-125	0.7	20	
Silver	0.0968	0.0100	0.0002	mg/L	0.10000	ND	97	75-125	0.5	20	
Thallium	0.0960	0.0010	0.00005	mg/L	0.10000	ND	96	75-125	0.4	20	
Vanadium	0.113	0.0100	0.0012	mg/L	0.10000	ND	113	75-125	0.4	20	
Zinc	0.111	0.0100	0.0012	mg/L	0.10000	0.0078	103	75-125	0.5	20	
Lithium	0.126	0.0500	0.0015	mg/L	0.10000	0.0331	93	75-125	2	20	
Post Spike (7100508-PS1)			Source: AAJ0483-02			Prepared: 10/18/17 Analyzed: 10/20/17					
Antimony	108			ug/L	100.00	0.117	108	80-120			
Arsenic	109			ug/L	100.00	3.11	106	80-120			
Barium	146			ug/L	100.00	42.9	103	80-120			
Beryllium	97.0			ug/L	100.00	0.0803	97	80-120			
Cadmium	100			ug/L	100.00	0.578	100	80-120			
Chromium	105			ug/L	100.00	0.357	105	80-120			
Cobalt	105			ug/L	100.00	1.68	103	80-120			
Copper	97.7			ug/L	100.00	0.548	97	80-120			
Lead	90.2			ug/L	100.00	0.0502	90	80-120			
Nickel	105			ug/L	100.00	4.34	100	80-120			
Selenium	163			ug/L	100.00	59.4	103	80-120			
Silver	96.5			ug/L	100.00	0.0050	96	80-120			
Thallium	93.0			ug/L	100.00	0.0199	93	80-120			
Vanadium	111			ug/L	100.00	0.784	110	80-120			
Zinc	109			ug/L	100.00	7.76	101	80-120			
Lithium	132			ug/L	100.00	33.1	99	80-120			



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Attention: Mr. Joju Abraham

November 02, 2017

Legend

Definition of Laboratory Terms

- ND** - Not Detected at levels equal to or greater than the MDL
BRL - Not Detected at levels equal to or greater than the RL
RL - Reporting Limit **MDL** - Method Detection Limit
SOP - Method run per Pace Standard Operating Procedure
CFU - Colony Forming Units
DF - Dilution Factor **TIC** - Tentatively Identified Compound

Sample Information

N-Nitrosodiphenylamine breaks down to diphenylamine in the GCMS; both analytes are reported as N-Nitrosodiphenylamine. Pace is not NELAC certified for N-Nitrosodiphenylamine.

Phthalic acid and phthalic anhydride are reported as dimethyl phthalate

Maleic acid and maleic anhydride are reported as dimethyl malate

1,2-Diphenylhydrazine breaks down to azobenzene in the GCMS; both analytes are reported as azobenzene

Definition of Qualifiers

- QM-05** The spike recovery was outside acceptance limits for the MS and/or MSD and/or PDS due to suspected matrix interference. Sample results for the QC batch were accepted based on acceptable LCS recoveries.
- QM-02** The spike recovery is outside acceptance limits due to insignificant spike amount as compared to sample concentration.
- J** Estimated value less than Reporting Limit (RL) but greater than Method Detection Limit(MDL) (CLP J-Flag).

Note: Unless otherwise noted, all results are reported on an as received basis.



Pace Analytical Services, Inc.
 110 TECHNOLOGY PARKWAY, PEACHTREE CORNERS, GA 30092
 (770) 734-4200 : FAX (770) 734-4201 : www.asi-lab.com

PAGE: 1 OF 1

CHAIN OF CUSTODY RECORD

CLIENT NAME: Georgia Power
 CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER: 241 Ralph McGill Blvd SE B10185 Atlanta, GA 30308 404-506-7239
 REPORT TO: Lauren Petty
 CC: Maria Pacilla
 Health McCorkle
 PO #: laburch@southernco.com
 PROJECT NAME/STATE: Plant Yates Phase II Facilities
 PROJECT #: Phase 2 CCR

Collection DATE	Collection TIME	MATRIX CODE	G O R A B	SAMPLE IDENTIFICATION	ANALYSIS REQUESTED	CONTAINER TYPE PRESERVATION # of CONTAINERS	RELINQUISHED BY:	DATE/TIME:
10-11-17	1405	6W	✓	P2-39	Metals App. III & IV (EPA 6020/7470) Cl, SO ₄ & TDS (EPA 300.0 & SM 2540C) Radium 226 & 228 (SW-846 9315/9320)	P 3	Ol-Park	10-13-17 1100
10-12-17	1420	6W	✓	Y6WC-42		P 7		10-13-17 1520
10-12-17	1510	6W	✓	Y6WC-43		P 3		
10-12-17	0945	6W	✓	P2-37		P 7		
10-12-17	1625	6W	✓	P2-38		P 3		
10-12-17	1105	6W	✓	P2-40		P 7		
10-12-17	1340	6W	✓	P2-41		P 3		
10-12-17	1655	W	✓	EB-2-10-12-17		P 7		
10-12-17	1320	W	✓	FB-1-10-12-17		P 3		
10-12-17	---	6W	✓	DuP-2		P 7		
10-12-17	1500	W	✓	FB-2-10-12-17		P 3		

CONTAINER TYPE: P - PLASTIC, A - AMBER GLASS, G - CLEAR GLASS, V - VOA VIAL, S - STERILE, O - OTHER
 PRESERVATION: 1 - HCl, ≤6°C, 2 - H₂SO₄, ≤6°C, 3 - HNO₃, 4 - NaOH, ≤6°C, 5 - NaOH/ZnAc, ≤6°C, 6 - Na₂S₂O₃, ≤6°C, 7 - ≤6°C not frozen

MATRIX CODES:
 DW - DRINKING WATER, S - SOIL, MW - WASTEWATER, SL - SLUDGE, GW - GROUNDWATER, SD - SOLID, SW - SURFACE WATER, A - AIR, ST - STORMWATER, L - LIQUID, W - WATER, P - PRODUCT

REMARKS/ADDITIONAL INFORMATION: extra Rad collected here

RELINQUISHED BY: Ol-Park DATE/TIME: 10-13-17 1100
 RELINQUISHED BY: DATE/TIME:
 SAMPLE SHIPPED VIA: UPS, FED-EX, USPS, COURIER, OTHER FS
 # of Coolers: 0, Broken: 0, Not Present: 0
 RECEIVED BY: E. Barker, T. B... (Acc) DATE/TIME: 10/13/17 1520
 RECEIVED BY: G. A. Luman DATE/TIME: 10/13/17 1520
 Temperature: 0.9 Max. Initial Seal: Intact

LAB #: AAJ0483
 Entered into LIMS: Tracking #:

FOR LAB USE ONLY



Sample Condition Upon Receipt

Client Name: GIA Power

Project # AAJ0483

Courier: Fed Ex UPS USPS Client Commercial Pace Other _____

Tracking #: _____

Custody Seal on Cooler/Box Present: yes no Seals intact: yes no

Packing Material: Bubble Wrap Bubble Bags None Other _____

Thermometer Used IR-4 Type of Ice: Wet Blue None Samples on ice, cooling process has begun

Cooler Temperature 0.9 Biological Tissue is Frozen: Yes No

Temp should be above freezing to 6°C

Date and initials of person examining contents: 10/13/17 MR

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Pace Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes date/time/ID/Analysis Matrix: <u>GCD</u>		
All containers needing preservation have been checked.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Initial when completed
		Lot # of added preservative
Samples checked for dechlorination:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	16.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution: _____ Date/Time: _____ Field Data Required? Y / N

Person Contacted: _____

Comments/ Resolution: _____

Project Manager Review: _____ Date: _____

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)



PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

LOG-IN CHECKLIST

Printed: 10/16/2017 11:36:35AM

Attn: Mr. Joju Abraham

Client: Georgia Power

Project: CCR Event

Date Received: 10/13/17 15:20

Work Order: AAJ0483

Logged In By: Mohammad M. Rahman

OBSERVATIONS

#Samples: 11

#Containers: 46

Minimum Temp(C): 0.9

Maximum Temp(C): 0.9

Custody Seal(s) Used: Yes

CHECKLIST ITEMS

- COC included with Samples YES
- Sample Container(s) Intact YES
- Chain of Custody Complete YES
- Sample Container(s) Match COC YES
- Custody seal Intact YES
- Temperature in Compliance YES
- Sufficient Sample Volume for Analysis YES
- Zero Headspace Maintained for VOA Analyses YES
- Samples labeled preserved (If Applicable) YES
- Samples received within Allowable Hold Times YES
- Samples Received on Ice YES
- Preservation Confirmed YES

Comments:

October 30, 2017

Mr. Joju Abraham
Georgia Power
2480 Maner Road
Atlanta, GA 30339

RE: Project: AAJ0483 Plant Yates
Pace Project No.: 30233110

Dear Mr. Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on October 16, 2017. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Jacquelyn Collins
jacquelyn.collins@pacelabs.com
(724)850-5612
Project Manager

Enclosures



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: AAJ0483 Plant Yates

Pace Project No.: 30233110

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601

L-A-B DOD-ELAP Accreditation #: L2417

Alabama Certification #: 41590

Arizona Certification #: AZ0734

Arkansas Certification

California Certification #: 04222CA

Colorado Certification

Connecticut Certification #: PH-0694

Delaware Certification

Florida/TNI Certification #: E87683

Georgia Certification #: C040

Guam Certification

Hawaii Certification

Idaho Certification

Illinois Certification

Indiana Certification

Iowa Certification #: 391

Kansas/TNI Certification #: E-10358

Kentucky Certification #: 90133

Louisiana DHH/TNI Certification #: LA140008

Louisiana DEQ/TNI Certification #: 4086

Maine Certification #: PA00091

Maryland Certification #: 308

Massachusetts Certification #: M-PA1457

Michigan/PADEP Certification

Missouri Certification #: 235

Montana Certification #: Cert 0082

Nebraska Certification #: NE-05-29-14

Nevada Certification #: PA014572015-1

New Hampshire/TNI Certification #: 2976

New Jersey/TNI Certification #: PA 051

New Mexico Certification #: PA01457

New York/TNI Certification #: 10888

North Carolina Certification #: 42706

North Dakota Certification #: R-190

Oregon/TNI Certification #: PA200002

Pennsylvania/TNI Certification #: 65-00282

Puerto Rico Certification #: PA01457

Rhode Island Certification #: 65-00282

South Dakota Certification

Tennessee Certification #: TN2867

Texas/TNI Certification #: T104704188-14-8

Utah/TNI Certification #: PA014572015-5

USDA Soil Permit #: P330-14-00213

Vermont Dept. of Health: ID# VT-0282

Virgin Island/PADEP Certification

Virginia/VELAP Certification #: 460198

Washington Certification #: C868

West Virginia DEP Certification #: 143

West Virginia DHHR Certification #: 9964C

Wisconsin Certification

Wyoming Certification #: 8TMS-L

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SAMPLE SUMMARY

Project: AAJ0483 Plant Yates

Pace Project No.: 30233110

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30233110001	PZ-39	Water	10/11/17 14:05	10/16/17 09:15
30233110002	YGWC-42	Water	10/12/17 14:20	10/16/17 09:15
30233110003	YGWC-43	Water	10/12/17 15:10	10/16/17 09:15
30233110004	PZ-37	Water	10/12/17 09:45	10/16/17 09:15
30233110005	PZ-38	Water	10/12/17 16:25	10/16/17 09:15
30233110006	PZ-40	Water	10/12/17 11:05	10/16/17 09:15
30233110007	PZ-41	Water	10/12/17 13:40	10/16/17 09:15
30233110008	EB-2-10-12-17	Water	10/12/17 16:55	10/16/17 09:15
30233110009	FB-1-10-12-17	Water	10/12/17 13:20	10/16/17 09:15
30233110010	Dup-2	Water	10/12/17 00:00	10/16/17 09:15
30233110011	FB-2-10-12-17	Water	10/12/17 15:00	10/16/17 09:15

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: AAJ0483 Plant Yates

Pace Project No.: 30233110

Lab ID	Sample ID	Method	Analysts	Analytes Reported
30233110001	PZ-39	EPA 9315	JC2	1
		EPA 9320	VAL	1
30233110002	YGWC-42	EPA 9315	JC2	1
		EPA 9320	VAL	1
		Total Radium Calculation	JAL	1
30233110003	YGWC-43	EPA 9315	JC2	1
		EPA 9320	VAL	1
		Total Radium Calculation	JAL	1
30233110004	PZ-37	EPA 9315	JC2	1
		EPA 9320	VAL	1
		Total Radium Calculation	JAL	1
30233110005	PZ-38	EPA 9315	JC2	1
		EPA 9320	VAL	1
		Total Radium Calculation	JAL	1
30233110006	PZ-40	EPA 9315	JC2	1
		EPA 9320	VAL	1
		Total Radium Calculation	JAL	1
30233110007	PZ-41	EPA 9315	JC2	1
		EPA 9320	VAL	1
		Total Radium Calculation	JAL	1
30233110008	EB-2-10-12-17	EPA 9315	JC2	1
		EPA 9320	VAL	1
		Total Radium Calculation	JAL	1
30233110009	FB-1-10-12-17	EPA 9315	JC2	1
		EPA 9320	VAL	1
		Total Radium Calculation	JAL	1
30233110010	Dup-2	EPA 9315	JC2	1
		EPA 9320	VAL	1
		Total Radium Calculation	JAL	1
30233110011	FB-2-10-12-17	EPA 9315	JC2	1
		EPA 9320	VAL	1
		Total Radium Calculation	JAL	1

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AAJ0483 Plant Yates

Pace Project No.: 30233110

Parameters		Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226		EPA 9315	0.244 ± 0.224 (0.410) C:82% T:NA	pCi/L	10/19/17 08:27	13982-63-3	
Radium-228		EPA 9320	0.342 ± 0.407 (0.852) C:66% T:93%	pCi/L	10/20/17 12:22	15262-20-1	
Total Radium		Total Radium Calculation	0.586 ± 0.631 (1.26)	pCi/L	10/23/17 13:39	7440-14-4	

Parameters		Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226		EPA 9315	2.94 ± 0.741 (0.480) C:85% T:NA	pCi/L	10/19/17 09:41	13982-63-3	
Radium-228		EPA 9320	0.625 ± 0.386 (0.712) C:70% T:89%	pCi/L	10/20/17 12:22	15262-20-1	
Total Radium		Total Radium Calculation	3.57 ± 1.13 (1.19)	pCi/L	10/23/17 13:39	7440-14-4	

Parameters		Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226		EPA 9315	1.34 ± 0.456 (0.356) C:81% T:NA	pCi/L	10/19/17 09:42	13982-63-3	
Radium-228		EPA 9320	0.238 ± 0.478 (1.04) C:67% T:81%	pCi/L	10/20/17 12:23	15262-20-1	
Total Radium		Total Radium Calculation	1.58 ± 0.934 (1.40)	pCi/L	10/23/17 13:39	7440-14-4	

Parameters		Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226		EPA 9315	1.21 ± 0.442 (0.421) C:88% T:NA	pCi/L	10/19/17 09:42	13982-63-3	
Radium-228		EPA 9320	0.622 ± 0.428 (0.815) C:71% T:77%	pCi/L	10/20/17 12:23	15262-20-1	
Total Radium		Total Radium Calculation	1.83 ± 0.870 (1.24)	pCi/L	10/23/17 13:39	7440-14-4	

Parameters		Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226		EPA 9315	0.861 ± 0.365 (0.463) C:89% T:NA	pCi/L	10/19/17 09:44	13982-63-3	
Radium-228		EPA 9320	0.383 ± 0.381 (0.779) C:66% T:97%	pCi/L	10/20/17 12:23	15262-20-1	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AAJ0483 Plant Yates

Pace Project No.: 30233110

Sample: PZ-38		Lab ID: 30233110005	Collected: 10/12/17 16:25	Received: 10/16/17 09:15	Matrix: Water	
PWS:		Site ID:	Sample Type:			
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Total Radium	Total Radium Calculation	1.24 ± 0.746 (1.24)	pCi/L	10/23/17 13:39	7440-14-4	

Sample: PZ-40		Lab ID: 30233110006	Collected: 10/12/17 11:05	Received: 10/16/17 09:15	Matrix: Water	
PWS:		Site ID:	Sample Type:			
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.929 ± 0.405 (0.525) C:76% T:NA	pCi/L	10/19/17 09:44	13982-63-3	
Radium-228	EPA 9320	0.563 ± 0.421 (0.818) C:71% T:79%	pCi/L	10/20/17 12:23	15262-20-1	
Total Radium	Total Radium Calculation	1.49 ± 0.826 (1.34)	pCi/L	10/23/17 13:39	7440-14-4	

Sample: PZ-41		Lab ID: 30233110007	Collected: 10/12/17 13:40	Received: 10/16/17 09:15	Matrix: Water	
PWS:		Site ID:	Sample Type:			
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.641 ± 0.329 (0.412) C:71% T:NA	pCi/L	10/19/17 09:44	13982-63-3	
Radium-228	EPA 9320	-0.198 ± 0.308 (0.748) C:77% T:82%	pCi/L	10/20/17 12:23	15262-20-1	
Total Radium	Total Radium Calculation	0.641 ± 0.637 (1.16)	pCi/L	10/23/17 13:39	7440-14-4	

Sample: EB-2-10-12-17		Lab ID: 30233110008	Collected: 10/12/17 16:55	Received: 10/16/17 09:15	Matrix: Water	
PWS:		Site ID:	Sample Type:			
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.305 ± 0.292 (0.573) C:74% T:NA	pCi/L	10/19/17 10:38	13982-63-3	
Radium-228	EPA 9320	0.381 ± 0.396 (0.813) C:77% T:74%	pCi/L	10/20/17 12:23	15262-20-1	
Total Radium	Total Radium Calculation	0.686 ± 0.688 (1.39)	pCi/L	10/23/17 13:39	7440-14-4	

Sample: FB-1-10-12-17		Lab ID: 30233110009	Collected: 10/12/17 13:20	Received: 10/16/17 09:15	Matrix: Water	
PWS:		Site ID:	Sample Type:			
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.291 ± 0.225 (0.371) C:81% T:NA	pCi/L	10/19/17 09:44	13982-63-3	
Radium-228	EPA 9320	0.149 ± 0.355 (0.780) C:76% T:73%	pCi/L	10/20/17 12:23	15262-20-1	
Total Radium	Total Radium Calculation	0.440 ± 0.580 (1.15)	pCi/L	10/23/17 13:39	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AAJ0483 Plant Yates

Pace Project No.: 30233110

Sample: Dup-2		Lab ID: 30233110010	Collected: 10/12/17 00:00	Received: 10/16/17 09:15	Matrix: Water		
PWS:		Site ID:	Sample Type:				
Parameters	Method	Act ± Unc (MDC) Carr Trac		Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.698 ± 0.330 (0.441)		pCi/L	10/19/17 09:44	13982-63-3	
		C:88% T:NA					
Radium-228	EPA 9320	0.313 ± 0.361 (0.749)		pCi/L	10/20/17 12:23	15262-20-1	
		C:69% T:85%					
Total Radium	Total Radium Calculation	1.01 ± 0.691 (1.19)		pCi/L	10/23/17 13:39	7440-14-4	

Sample: FB-2-10-12-17		Lab ID: 30233110011	Collected: 10/12/17 15:00	Received: 10/16/17 09:15	Matrix: Water		
PWS:		Site ID:	Sample Type:				
Parameters	Method	Act ± Unc (MDC) Carr Trac		Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.166 ± 0.206 (0.427)		pCi/L	10/19/17 09:44	13982-63-3	
		C:82% T:NA					
Radium-228	EPA 9320	0.175 ± 0.390 (0.853)		pCi/L	10/20/17 12:24	15262-20-1	
		C:66% T:80%					
Total Radium	Total Radium Calculation	0.341 ± 0.596 (1.28)		pCi/L	10/23/17 13:39	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: AAJ0483 Plant Yates

Pace Project No.: 30233110

QC Batch:	275694	Analysis Method:	EPA 9320
QC Batch Method:	EPA 9320	Analysis Description:	9320 Radium 228
Associated Lab Samples:	30233110001, 30233110002, 30233110003, 30233110004, 30233110005, 30233110006, 30233110007, 30233110008, 30233110009, 30233110010, 30233110011		

METHOD BLANK:	1355356	Matrix:	Water
Associated Lab Samples:	30233110001, 30233110002, 30233110003, 30233110004, 30233110005, 30233110006, 30233110007, 30233110008, 30233110009, 30233110010, 30233110011		

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.573 ± 0.385 (0.731) C:79% T:78%	pCi/L	10/20/17 12:21	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: AAJ0483 Plant Yates

Pace Project No.: 30233110

QC Batch:	275693	Analysis Method:	EPA 9315
QC Batch Method:	EPA 9315	Analysis Description:	9315 Total Radium
Associated Lab Samples:	30233110001, 30233110002, 30233110003, 30233110004, 30233110005, 30233110006, 30233110007, 30233110008, 30233110009, 30233110010, 30233110011		

METHOD BLANK:	1355355	Matrix:	Water
Associated Lab Samples:	30233110001, 30233110002, 30233110003, 30233110004, 30233110005, 30233110006, 30233110007, 30233110008, 30233110009, 30233110010, 30233110011		

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.249 ± 0.195 (0.302) C:89% T:NA	pCi/L	10/19/17 08:27	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: AAJ0483 Plant Yates
Pace Project No.: 30233110

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval).

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Chain of Custody



Workorder: AAJ0483 Workorder Name: Pace - Pittsburgh Plant Yates Owner Received Date: 10/3/2017 Results Requested By: 11/7/2017

Report To:
 Betsy McDaniel
 Pace Analytical Atlanta
 110 Technology Parkway
 Peachtree Corners, GA 30092
 Phone (770)-734-4200

Subcontract To:
 Pace - Pittsburgh
 1638 Roseytown Road
 Stes. 2,3,4
 Greensburg, PA 15601
 Phone (724) 850-5600

Requested Analysis

WO#: 30233110

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers		Date/Time	Comments
						CON	NH		
1	PZ-39	G	10/11/2017 14:05	AAJ0483-01	GW	2			
2	YGWC-42	G	10/12/2017 14:20	AAJ0483-02	GW	4			
3	YGWC-43	G	10/12/2017 15:10	AAJ0483-03	GW	2			
4	PZ-37	G	10/12/2017 9:45	AAJ0483-04	GW	2			
5	PZ-38	G	10/12/2017 16:25	AAJ0483-05	GW	2			
6	PZ-40	G	10/12/2017 11:05	AAJ0483-06	GW	2			
7	PZ-41	G	10/12/2017 13:40	AAJ0483-07	GW	2			
8	EB-2-10-12-17	G	10/12/2017 16:55	AAJ0483-08	W	2			
9	FB-1-10-12-17	G	10/12/2017 13:20	AAJ0483-09	W	2			
10	Dup-2	G	10/12/2017 0:00	AAJ0483-10	GW	2			
Transfers Released By: M. RAHMAN Date/Time: 10/13/17 Received By: [Signature] Date/Time: 10-16-17 0915									
1	Radium 226, 228, Total								
2									
3									

COOLER TEMPERATURE ON RECEIPT: 11.5 °C CUSTODY SEAL Y OR N: Y RECEIVED ON ICE Y OR N: N SAMPLE INTACT Y OR N: Y

***In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC

This chain of custody is considered complete as is since this information is available in the owner laboratory.

30233110 =

Chain of Custody



Workorder: AAJ0483 Workorder Name: Pace - Pittsburgh Owner Received Date: 10/3/2017 Results Requested By: 11/7/2017

Report To: Betsy McDaniel
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 110 Technology Parkway
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Subcontract To: Pace - Pittsburgh
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 Greensburg, PA 15601
 Phone (724) 850-5600

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers			Date/Time	Comments
						N	O	H		
11	FB-2-10-12-17	G	10/12/2017 15:00	AAJ0483-11	W			2	X	Radium 226, 228, Total
12										
13										
14										
15										
16										
17										
18										
19										
20										

Transfers Released By: *M. RAHMAN* Date/Time: *10/13/17* Received By: *John Bergstrom/Pace* Date/Time: *10-16-17/2015*

Cooler Temperature on Receipt: *N/A* °C Custody Seal Y or N: *N* Received on Ice Y or N: *N* Sample Intact Y or N: *N*

***In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC. This chain of custody is considered complete as is since this information is available in the owner laboratory.

30233110

Sample Condition Upon Receipt

Face Analytical

Client Name: GIA Power

Project # AA70483

Courier: Fed Ex UPS USPS Client Commercial Pace Other

Tracking #: _____

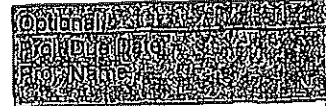
Custody Seal on Cooler/Box Present: yes no Seals intact: yes no

Packing Material: Bubble Wrap Bubble Bags None Other

Thermometer Used IR-4 Type of Ice: Wet Blue None Samples on Ice, cooling process has begun

Cooler Temperature 0.9 Biological Tissue is Frozen: Yes No

Temp should be above freezing to 6°C



Date and Initials of person examining contents: 10/13/17 MA

Comments:

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.	
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.	
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.	
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.	
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.	
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.	
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.	
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.	
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.	
-Pace Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.	
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.	
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.	
-Includes date/time/ID/Analysis Matrix: <u>GIA</u>			
All containers needing preservation have been checked.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	13.	
All containers needing preservation are found to be in compliance with EPA recommendation.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Initial when completed	Lot # of added preservative
Samples checked for dechlorination:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.	
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.	
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	16.	
Trip Blank Custody/Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A		
Pace Trip Blank Lot # (if purchased):			

Client Notification/ Resolution:

Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

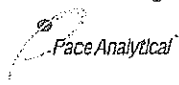
Project Manager Review: _____

Date: _____

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

F-ALLC003rev.3 11September2006

Pittsburgh Lab Sample Condition Upon Receipt



Client Name: Pace, GA

Project # 30233110

Courier: Fed Ex UPS USPS Client Commercial Pace Other _____

Tracking #: 7413 6599 2500

Label AML
LIMS Login COL

Custody Seal on Cooler/Box Present: yes no Seals intact: yes no

Thermometer Used N/A Type of Ice: Wet Blue None

Cooler Temperature Observed Temp _____ °C Correction Factor: _____ °C Final Temp: _____ °C

Temp should be above freezing to 6°C

Date and Initials of person examining contents: AML 10-16-17

Comments:	Yes	No	N/A	
Chain of Custody Present:	X			1.
Chain of Custody Filled Out:	X			2.
Chain of Custody Relinquished:	X			3.
Sampler Name & Signature on COC:		X		4.
Sample Labels match COC:	X			5.
-Includes date/time/ID Matrix: <u>WT</u>				
Samples Arrived within Hold Time:	X			6.
Short Hold Time Analysis (<72hr remaining):		X		7.
Rush Turn Around Time Requested:		X		8.
Sufficient Volume:	X			9.
Correct Containers Used:	X			10.
-Pace Containers Used:	X			
Containers Intact:	X			11.
Orthophosphate field filtered			X	12.
Hex Cr Aqueous Compliance/NPDES sample field filtered			X	13.
Organic Samples checked for dechlorination:			X	14.
Filtered volume received for Dissolved tests			X	15.
All containers have been checked for preservation.	X			16.
All containers needing preservation are found to be in compliance with EPA recommendation.	X			<u>PH62</u>
exceptions: VOA, coliform, TOC, O&G, Phenolics				Initial when completed: <u>AML</u> Date/time of preservation: _____
				Lot # of added preservative: _____
Headspace in VOA Vials (>6mm):			X	17.
Trip Blank Present:		X		18.
Trip Blank Custody Seals Present		X		
Rad Aqueous Samples Screened > 0.5 mrem/hr		X		Initial when completed: <u>AML</u> Date: <u>10-16-17</u>

Client Notification/ Resolution:

Person Contacted: _____ Date/Time: _____ Contacted By: _____

Comments/ Resolution: _____

A check in this box indicates that additional information has been stored in ereports.

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

*PM review is documented electronically in LIMS. When the Project Manager closes the SRF Review schedule in LIMS. The review is in the Status section of the Workorder Edit Screen.

Quality Control Sample Performance Assessment



Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-228
Analyst: VAL
Date: 10/18/2017
Worklist: 38279
Matrix: DW

Method Blank Assessment	
MB Sample ID	1355356
MB concentration:	0.573
M/B Counting Uncertainty:	0.371
MB MDC:	0.731
MB Numerical Performance Indicator:	3.03
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	
LCS38279	N
Count Date:	10/20/2017
Spike I.D.:	17-033
Spike Concentration (pCi/mL):	23.228
Volume Used (mL):	0.20
Aliquot Volume (L, g, F):	0.815
Target Conc. (pCi/L, g, F):	5.699
Uncertainty (Calculated):	0.410
Result (pCi/L, g, F):	5.705
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.782
Numerical Performance Indicator:	0.01
Percent Recovery:	100.11%
Status vs Numerical Indicator:	N/A
Status vs Recovery:	Pass

Duplicate Sample Assessment	
Sample I.D.:	30233110002
Duplicate Sample I.D.:	30233110002DUP
Sample Result (pCi/L, g, F):	0.625
Sample Result Counting Uncertainty (pCi/L, g, F):	0.369
Sample Duplicate Result (pCi/L, g, F):	1.022
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.470
Are sample and/or duplicate results below MDC?	See Below ##
Duplicate Numerical Performance Indicator:	-1.302
Duplicate RPD:	48.17%
Duplicate Status vs Numerical Indicator:	N/A
Duplicate Status vs RPD:	Fail**

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

Quoted

***Batch must be re-prepped due to unacceptable precision.

Sample Matrix Spike Control Assessment	
Sample Collection Date:	
Sample I.D.:	
Sample MS I.D.:	
Sample MSD I.D.:	
Spike I.D.:	
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	
Spike Volume Used in MS (mL):	
Spike Volume Used in MSD (mL):	
MS Aliquot (L, g, F):	
MS Target Conc. (pCi/L, g, F):	
MSD Aliquot (L, g, F):	
MSD Target Conc. (pCi/L, g, F):	
Spike uncertainty (calculated):	
Sample Result:	
Sample Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Result:	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
MS Numerical Performance Indicator:	
MS Percent Recovery:	
MSD Percent Recovery:	
MS Status vs Numerical Indicator:	
MSD Status vs Numerical Indicator:	
MS Status vs Recovery:	
MSD Status vs Recovery:	

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.:	
Sample MS I.D.:	
Sample MSD I.D.:	
Sample Matrix Spike Result:	
Sample Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Sample Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
Duplicate Numerical Performance Indicator:	
(Based on the Percent Recoveries) MS/MSD Duplicate RPD:	
MS/MSD Duplicate Status vs Numerical Indicator:	
MS/MSD Duplicate Status vs RPD:	

Quality Control Sample Performance Assessment



Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-226
Analyst: JC2
Date: 10/18/2017
Worklist: 38278
Matrix: DW

Method Blank Assessment

MB Sample ID: 1355355
MB concentration: 0.249
M/B Counting Uncertainty: 0.191
MB MDC: 0.302
MB Numerical Performance Indicator: 2.55
MB Status vs Numerical Indicator: N/A
MB Status vs. MDC: Pass

Laboratory Control Sample Assessment

Count Date:	Count	LCS (Y or N)?
10/19/2017	17-030	Y
10/19/2017	80.189	LCS38278
	0.10	10/19/2017
	0.508	17-030
	15.794	80.189
	1.455	0.10
	13.094	0.508
	1.218	15.727
	-2.79	1.449
	82.91%	12.980
	N/A	1.233
	Pass	-2.83
		82.54%
		N/A
		Pass

Duplicate Sample Assessment

Sample I.D.: LCS38278
Duplicate Sample I.D.: LCS38278
Sample Result (pCi/L, g, F): 13.094
Sample Duplicate Result (pCi/L, g, F): 1.218
Sample Duplicate Result (pCi/L, g, F): 12.980
Are sample and/or duplicate results below MDC? NO
Duplicate Numerical Performance Indicator: 0.129
Duplicate RPD: 0.87%
Duplicate Status vs Numerical Indicator: N/A
Duplicate Status vs RPD: Pass

Sample Matrix Spike Control Assessment

Sample Collection Date:
Sample I.D.:
Sample MS I.D.:
Sample MSD I.D.:
Spike I.D.:
MS/MSD Decay Corrected Spike Concentration (pCi/mL):
Spike Volume Used in MS (mL):
Spike Volume Used in MSD (mL):
MS Aliquot (L, g, F):
MS Target Conc. (pCi/L, g, F):
MSD Aliquot (L, g, F):
MSD Target Conc. (pCi/L, g, F):
Spike uncertainty (calculated):
Sample Result:
Sample Result Counting Uncertainty (pCi/L, g, F):
Matrix Spike Result:
Sample Matrix Spike Duplicate Result:
Sample Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):
MS Numerical Performance Indicator:
MSD Numerical Performance Indicator:
MS Percent Recovery:
MSD Percent Recovery:
MS Status vs Numerical Indicator:
MSD Status vs Numerical Indicator:
MS Status vs Recovery:
MSD Status vs Recovery:

Matrix Spike/Matrix Spike Duplicate Sample Assessment

Sample I.D.:
Sample MS I.D.:
Sample MSD I.D.:
Sample Matrix Spike Result:
Sample Matrix Spike Result Counting Uncertainty (pCi/L, g, F):
Sample Matrix Spike Duplicate Result:
Sample Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):
Duplicate Numerical Performance Indicator:
MS/MSD Duplicate RPD:
MS/MSD Duplicate Status vs Numerical Indicator:
MS/MSD Duplicate Status vs RPD:

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

Handwritten signature

Product Name: Low-Flow System

Date: 2017-11-21 11:27:45

Project Information:

Operator Name Chris Parker
Company Name Atlantic Coast Consulting
Project Name Plant Yates Phase 2 CCR
Site Name Plant Yates
Latitude 33° 27' 46.14"
Longitude -84° -53' -52.68"
Sonde SN 466086
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type Peripump
Tubing Type Poly
Tubing Diameter .17 in
Tubing Length 47.0 ft

Pump placement from TOC 41.5 ft

Well Information:

Well ID PZ-37
Well diameter 2 in
Well Total Depth 46.50 ft
Screen Length 10 ft
Depth to Water 11.68 ft

Pumping Information:

Final Pumping Rate 180 mL/min
Total System Volume 0.2997809 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 5 in
Total Volume Pumped 11.7 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	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	11:04:11	2099.99	18.21	5.91	1216.76	6.78	12.00	0.17	-48.65
Last 5	11:09:11	2399.98	18.21	5.70	1238.95	4.99	12.00	0.20	-15.66
Last 5	11:14:11	2699.98	18.21	5.58	1255.64	4.76	12.00	0.25	-0.10
Last 5	11:19:11	2999.98	18.07	5.50	1269.33	4.12	12.00	0.29	10.50
Last 5	11:24:11	3299.97	18.22	5.49	1285.36	3.05	12.00	0.29	15.30
Variance 0			-0.00	-0.12	16.70			0.05	15.55
Variance 1			-0.14	-0.09	13.69			0.04	10.61
Variance 2			0.15	-0.00	16.03			-0.00	4.80

Notes

Cloudy 50s. Collected at 11:30

Grab Samples

Product Name: Low-Flow System

Date: 2017-11-20 12:44:22

Project Information:

Operator Name Chris Parker
Company Name Atlantic Coast Consulting
Project Name Plant Yates Phase 2 CCR
Site Name Plant Yates
Latitude 33° 27' 46.14"
Longitude -84° 53' -52.68"
Sonde SN 466086
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type Peripump
Tubing Type Poly
Tubing Diameter .17 in
Tubing Length 50.0 ft

Pump placement from TOC 45.0 ft

Well Information:

Well ID PZ-38
Well diameter 2 in
Well Total Depth 50.12 ft
Screen Length 10 ft
Depth to Water 31.83 ft

Pumping Information:

Final Pumping Rate 75 mL/min
Total System Volume 0.3131711 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 4 in
Total Volume Pumped 3.4 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			+/- 0	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	12:19:48	600.01	17.55	4.95	1583.46	8.13	32.10	2.75	188.88
Last 5	12:24:48	900.01	18.07	4.86	1580.55	5.79	32.10	2.63	184.81
Last 5	12:29:48	1199.99	18.25	4.87	1574.36	4.85	32.10	2.69	180.13
Last 5	12:34:48	1499.99	18.11	4.84	1573.03	4.73	32.10	2.92	180.20
Last 5	12:39:49	1800.99	18.45	4.87	1581.71	4.55	32.10	2.76	181.33
Variance 0			0.18	0.01	-6.19			0.06	-4.68
Variance 1			-0.15	-0.03	-1.33			0.23	0.07
Variance 2			0.34	0.04	8.68			-0.16	1.14

Notes

Sunny 50s. Collected at 12:45

Grab Samples

Product Name: Low-Flow System

Date: 2017-11-20 16:19:08

Project Information:

Operator Name Chris Parker
Company Name Atlantic Coast Consulting
Project Name Plant Yates Phase 2 CCR
Site Name Plant Yates
Latitude 33° 27' 46.14"
Longitude -84° 53' -52.68"
Sonde SN 466086
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type Peripump
Tubing Type Poly
Tubing Diameter .17 in
Tubing Length 50 ft

Pump placement from TOC 43.2 ft

Well Information:

Well ID PZ-40
Well diameter 2 in
Well Total Depth 48.17 ft
Screen Length 10 ft
Depth to Water 27.83 ft

Pumping Information:

Final Pumping Rate 130 mL/min
Total System Volume 0.3131711 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 5 in
Total Volume Pumped 4.5 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	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	15:57:06	600.04	17.14	5.12	185.96	0.89	28.20	5.59	139.78
Last 5	16:02:06	900.01	17.00	5.10	188.97	0.64	28.20	5.70	142.11
Last 5	16:07:06	1200.00	16.87	5.09	192.51	0.76	28.20	5.74	145.37
Last 5	16:12:06	1500.00	16.81	5.13	195.53	0.68	28.20	5.77	144.54
Last 5	16:17:06	1800.01	16.70	5.10	195.64	0.55	28.20	5.77	146.91
Variance 0			-0.13	-0.01	3.54			0.05	3.26
Variance 1			-0.07	0.04	3.01			0.02	-0.83
Variance 2			-0.11	-0.03	0.11			0.01	2.37

Notes

Sunny 50s. Collected at 16:20

Grab Samples

Product Name: Low-Flow System

Date: 2017-11-21 12:35:10

Project Information:

Operator Name Chris Parker
Company Name Atlantic Coast Consulting
Project Name Plant Yates Phase 2 CCR
Site Name Plant Yates
Latitude 33° 27' 46.14"
Longitude -84° -53' -52.68"
Sonde SN 466086
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type Peripump
Tubing Type poly
Tubing Diameter .17 in
Tubing Length 68.0 ft

Pump placement from TOC 62.7 ft

Well Information:

Well ID PZ-41
Well diameter 2 in
Well Total Depth 67.70 ft
Screen Length 10 ft
Depth to Water 29.08 ft

Pumping Information:

Final Pumping Rate 130 mL/min
Total System Volume 0.3935128 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 4 in
Total Volume Pumped 4.6 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	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	12:12:50	600.01	20.19	4.77	842.75	3.04	29.40	1.19	76.05
Last 5	12:17:50	900.01	20.15	4.72	850.48	2.18	29.40	1.21	86.24
Last 5	12:22:50	1200.01	19.97	4.70	850.10	2.02	29.40	1.11	94.07
Last 5	12:27:50	1500.00	19.30	4.72	852.95	2.11	29.40	1.11	99.48
Last 5	12:32:50	1800.00	19.59	4.69	858.69	1.95	29.40	1.10	105.84
Variance 0			-0.18	-0.02	-0.38			-0.09	7.84
Variance 1			-0.67	0.02	2.85			-0.01	5.41
Variance 2			0.30	-0.03	5.74			-0.00	6.35

Notes

Sunny 50s. Collected at 12:35

Grab Samples



PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
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(770) 734-4200 FAX (770) 734-4201

Laboratory Report

Prepared For:

**Georgia Power
2480 Maner Road
Atlanta, GA 30339**

Attention: Mr. Joju Abraham

Report Number: AAK0755

December 05, 2017

Project: CCR Event

Project #: Plant Yates

We appreciate the opportunity to provide the analytical support for your project. The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Approved:

A handwritten signature in black ink that reads "Betsy McDaniel" written over a horizontal line.

Project Manager

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All test results relate only to the samples analyzed.



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Atlanta GA, 30339

Attention: Mr. Joju Abraham

December 05, 2017

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
PZ-38	AAK0755-01	Ground Water	11/20/17 12:45	11/21/17 16:40
PZ-39	AAK0755-02	Ground Water	11/20/17 15:05	11/21/17 16:40
PZ-40	AAK0755-03	Ground Water	11/20/17 16:20	11/21/17 16:40
PZ-37	AAK0755-04	Ground Water	11/21/17 11:30	11/21/17 16:40
PZ-41	AAK0755-05	Ground Water	11/21/17 12:35	11/21/17 16:40



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Attention: Mr. Joju Abraham

December 05, 2017

Case Narrative

The Radium analysis by methods EPA 9315/9320 was performed by Pace-Pittsburgh, 1638 Roseytown Road - Suites 2, 3, 4, Greensburg PA 15601. The Pace-Pittsburgh lab contact is Jacquelyn Collins at 724-850-5612.



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Georgia Power
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 Atlanta GA, 30339

Attention: Mr. Joju Abraham

December 05, 2017

Report No.: AAK0755

Project: CCR Event

Client ID: PZ-38

Lab Number ID: AAK0755-01

Date/Time Sampled: 11/20/2017 12:45:00PM

Date/Time Received: 11/21/2017 4:40:00PM

Matrix: Ground Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	1390	25	10	mg/L	SM 2540 C		1	11/27/17 12:40	11/27/17 12:40	7110723	JPT
Inorganic Anions											
Chloride	6.9	0.25	0.02	mg/L	EPA 300.0		1	11/28/17 10:41	11/28/17 16:11	7110758	RLC
Fluoride	0.20	0.30	0.03	mg/L	EPA 300.0	J	1	11/28/17 10:41	11/28/17 16:11	7110758	RLC
Sulfate	980	25	0.42	mg/L	EPA 300.0		25	11/28/17 10:41	11/28/17 19:37	7110758	RLC
Metals, Total											
Antimony	ND	0.0030	0.0006	mg/L	EPA 6020B		1	11/29/17 09:20	11/29/17 15:59	7110742	CSW
Arsenic	0.0008	0.0050	0.0005	mg/L	EPA 6020B	J	1	11/29/17 09:20	11/29/17 15:59	7110742	CSW
Barium	0.0255	0.0100	0.0004	mg/L	EPA 6020B		1	11/29/17 09:20	11/29/17 15:59	7110742	CSW
Beryllium	0.0053	0.0030	0.00009	mg/L	EPA 6020B		1	11/29/17 09:20	11/29/17 15:59	7110742	CSW
Boron	21.8	2.00	0.298	mg/L	EPA 6020B		50	11/29/17 09:20	11/29/17 16:04	7110742	CSW
Cadmium	0.0027	0.0010	0.0001	mg/L	EPA 6020B		1	11/29/17 09:20	11/29/17 15:59	7110742	CSW
Calcium	184	25.0	2.02	mg/L	EPA 6020B		50	11/29/17 09:20	11/29/17 16:04	7110742	CSW
Chromium	ND	0.0100	0.0005	mg/L	EPA 6020B		1	11/29/17 09:20	11/29/17 15:59	7110742	CSW
Cobalt	ND	0.0100	0.0003	mg/L	EPA 6020B		1	11/29/17 09:20	11/29/17 15:59	7110742	CSW
Lead	0.0001	0.0050	0.00007	mg/L	EPA 6020B	J	1	11/29/17 09:20	11/29/17 15:59	7110742	CSW
Molybdenum	ND	0.0100	0.0010	mg/L	EPA 6020B		1	11/29/17 09:20	11/29/17 15:59	7110742	CSW
Selenium	0.246	0.0100	0.0018	mg/L	EPA 6020B		1	11/29/17 09:20	11/29/17 15:59	7110742	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	11/29/17 09:20	11/29/17 15:59	7110742	CSW
Lithium	0.0083	0.0500	0.0015	mg/L	EPA 6020B	J	1	11/29/17 09:20	11/29/17 15:59	7110742	CSW
Mercury	0.00008	0.00050	0.000036	mg/L	EPA 7470A	B-01, J	1	11/28/17 16:30	11/29/17 17:03	7110762	MTC



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 Atlanta GA, 30339

December 05, 2017

Attention: Mr. Joju Abraham

Report No.: AAK0755

Project: CCR Event

Client ID: PZ-39

Lab Number ID: AAK0755-02

Date/Time Sampled: 11/20/2017 3:05:00PM

Date/Time Received: 11/21/2017 4:40:00PM

Matrix: Ground Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	139	25	10	mg/L	SM 2540 C		1	11/27/17 12:40	11/27/17 12:40	7110723	JPT
Inorganic Anions											
Chloride	1.8	0.25	0.02	mg/L	EPA 300.0		1	11/28/17 10:41	11/28/17 16:31	7110758	RLC
Fluoride	ND	0.30	0.03	mg/L	EPA 300.0		1	11/28/17 10:41	11/28/17 16:31	7110758	RLC
Sulfate	24	1.0	0.02	mg/L	EPA 300.0		1	11/28/17 10:41	11/28/17 16:31	7110758	RLC
Metals, Total											
Antimony	ND	0.0030	0.0006	mg/L	EPA 6020B		1	11/29/17 09:20	11/29/17 16:24	7110742	CSW
Arsenic	ND	0.0050	0.0005	mg/L	EPA 6020B		1	11/29/17 09:20	11/29/17 16:24	7110742	CSW
Barium	0.0081	0.0100	0.0004	mg/L	EPA 6020B	J	1	11/29/17 09:20	11/29/17 16:24	7110742	CSW
Beryllium	ND	0.0030	0.00009	mg/L	EPA 6020B		1	11/29/17 09:20	11/29/17 16:24	7110742	CSW
Boron	0.0251	0.0400	0.0060	mg/L	EPA 6020B	J	1	11/29/17 09:20	11/29/17 16:24	7110742	CSW
Cadmium	ND	0.0010	0.0001	mg/L	EPA 6020B		1	11/29/17 09:20	11/29/17 16:24	7110742	CSW
Calcium	1.81	0.500	0.0404	mg/L	EPA 6020B		1	11/29/17 09:20	11/29/17 16:24	7110742	CSW
Chromium	ND	0.0100	0.0005	mg/L	EPA 6020B		1	11/29/17 09:20	11/29/17 16:24	7110742	CSW
Cobalt	ND	0.0100	0.0003	mg/L	EPA 6020B		1	11/29/17 09:20	11/29/17 16:24	7110742	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	11/29/17 09:20	11/29/17 16:24	7110742	CSW
Molybdenum	0.0081	0.0100	0.0010	mg/L	EPA 6020B	J	1	11/29/17 09:20	11/29/17 16:24	7110742	CSW
Selenium	ND	0.0100	0.0018	mg/L	EPA 6020B		1	11/29/17 09:20	11/29/17 16:24	7110742	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	11/29/17 09:20	11/29/17 16:24	7110742	CSW
Lithium	0.0018	0.0500	0.0015	mg/L	EPA 6020B	J	1	11/29/17 09:20	11/29/17 16:24	7110742	CSW
Mercury	0.00007	0.00050	0.000036	mg/L	EPA 7470A	B-01, J	1	11/28/17 16:30	11/29/17 17:06	7110762	MTC



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December 05, 2017

Attention: Mr. Joju Abraham

Report No.: AAK0755

Project: CCR Event

Client ID: PZ-40

Lab Number ID: AAK0755-03

Date/Time Sampled: 11/20/2017 4:20:00PM

Date/Time Received: 11/21/2017 4:40:00PM

Matrix: Ground Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	179	25	10	mg/L	SM 2540 C		1	11/27/17 12:40	11/27/17 12:40	7110723	JPT
Inorganic Anions											
Chloride	4.4	0.25	0.02	mg/L	EPA 300.0		1	11/28/17 10:41	11/28/17 16:52	7110758	RLC
Fluoride	ND	0.30	0.03	mg/L	EPA 300.0		1	11/28/17 10:41	11/28/17 16:52	7110758	RLC
Sulfate	71	5.0	0.08	mg/L	EPA 300.0		5	11/28/17 10:41	11/28/17 19:58	7110758	RLC
Metals, Total											
Antimony	ND	0.0030	0.0006	mg/L	EPA 6020B		1	11/29/17 09:20	11/29/17 16:35	7110742	CSW
Arsenic	ND	0.0050	0.0005	mg/L	EPA 6020B		1	11/29/17 09:20	11/29/17 16:35	7110742	CSW
Barium	0.0671	0.0100	0.0004	mg/L	EPA 6020B		1	11/29/17 09:20	11/29/17 16:35	7110742	CSW
Beryllium	0.0003	0.0030	0.00009	mg/L	EPA 6020B	J	1	11/29/17 09:20	11/29/17 16:35	7110742	CSW
Boron	0.156	0.0400	0.0060	mg/L	EPA 6020B		1	11/29/17 09:20	11/29/17 16:35	7110742	CSW
Cadmium	ND	0.0010	0.0001	mg/L	EPA 6020B		1	11/29/17 09:20	11/29/17 16:35	7110742	CSW
Calcium	10.4	5.00	2.02	mg/L	EPA 6020B		50	11/29/17 09:20	11/29/17 16:41	7110742	CSW
Chromium	ND	0.0100	0.0005	mg/L	EPA 6020B		1	11/29/17 09:20	11/29/17 16:35	7110742	CSW
Cobalt	ND	0.0100	0.0003	mg/L	EPA 6020B		1	11/29/17 09:20	11/29/17 16:35	7110742	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	11/29/17 09:20	11/29/17 16:35	7110742	CSW
Molybdenum	ND	0.0100	0.0010	mg/L	EPA 6020B		1	11/29/17 09:20	11/29/17 16:35	7110742	CSW
Selenium	0.0042	0.0100	0.0018	mg/L	EPA 6020B	J	1	11/29/17 09:20	11/29/17 16:35	7110742	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	11/29/17 09:20	11/29/17 16:35	7110742	CSW
Lithium	ND	0.0500	0.0015	mg/L	EPA 6020B		1	11/29/17 09:20	11/29/17 16:35	7110742	CSW
Mercury	0.00008	0.00050	0.000036	mg/L	EPA 7470A	B-01, J	1	11/28/17 16:30	11/29/17 17:08	7110762	MTC



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December 05, 2017

Attention: Mr. Joju Abraham

Report No.: AAK0755

Project: CCR Event

Client ID: PZ-37

Lab Number ID: AAK0755-04

Date/Time Sampled: 11/21/2017 11:30:00AM

Date/Time Received: 11/21/2017 4:40:00PM

Matrix: Ground Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	1100	25	10	mg/L	SM 2540 C		1	11/27/17 12:40	11/27/17 12:40	7110723	JPT
Inorganic Anions											
Chloride	6.5	0.25	0.02	mg/L	EPA 300.0		1	11/28/17 10:41	11/28/17 17:13	7110758	RLC
Fluoride	0.26	0.30	0.03	mg/L	EPA 300.0	J	1	11/28/17 10:41	11/28/17 17:13	7110758	RLC
Sulfate	700	20	0.34	mg/L	EPA 300.0		20	11/28/17 10:41	11/30/17 13:40	7110758	RLC
Metals, Total											
Antimony	ND	0.0030	0.0006	mg/L	EPA 6020B		1	11/29/17 09:20	11/29/17 16:47	7110742	CSW
Arsenic	0.0008	0.0050	0.0005	mg/L	EPA 6020B	J	1	11/29/17 09:20	11/29/17 16:47	7110742	CSW
Barium	0.0579	0.0100	0.0004	mg/L	EPA 6020B		1	11/29/17 09:20	11/29/17 16:47	7110742	CSW
Beryllium	0.0004	0.0030	0.00009	mg/L	EPA 6020B	J	1	11/29/17 09:20	11/29/17 16:47	7110742	CSW
Boron	17.2	2.00	0.298	mg/L	EPA 6020B		50	11/29/17 09:20	11/29/17 16:52	7110742	CSW
Cadmium	0.0002	0.0010	0.0001	mg/L	EPA 6020B	J	1	11/29/17 09:20	11/29/17 16:47	7110742	CSW
Calcium	118	25.0	2.02	mg/L	EPA 6020B		50	11/29/17 09:20	11/29/17 16:52	7110742	CSW
Chromium	0.0017	0.0100	0.0005	mg/L	EPA 6020B	J	1	11/29/17 09:20	11/29/17 16:47	7110742	CSW
Cobalt	0.0097	0.0100	0.0003	mg/L	EPA 6020B	J	1	11/29/17 09:20	11/29/17 16:47	7110742	CSW
Lead	0.0002	0.0050	0.00007	mg/L	EPA 6020B	J	1	11/29/17 09:20	11/29/17 16:47	7110742	CSW
Molybdenum	0.0016	0.0100	0.0010	mg/L	EPA 6020B	J	1	11/29/17 09:20	11/29/17 16:47	7110742	CSW
Selenium	0.225	0.0100	0.0018	mg/L	EPA 6020B		1	11/29/17 09:20	11/29/17 16:47	7110742	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	11/29/17 09:20	11/29/17 16:47	7110742	CSW
Lithium	0.0255	0.0500	0.0015	mg/L	EPA 6020B	J	1	11/29/17 09:20	11/29/17 16:47	7110742	CSW
Mercury	0.00006	0.00050	0.000036	mg/L	EPA 7470A	B-01, J	1	11/28/17 16:30	11/29/17 17:10	7110762	MTC



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 Atlanta GA, 30339

Attention: Mr. Joju Abraham

December 05, 2017

Report No.: AAK0755

Project: CCR Event

Client ID: PZ-41

Lab Number ID: AAK0755-05

Date/Time Sampled: 11/21/2017 12:35:00PM

Date/Time Received: 11/21/2017 4:40:00PM

Matrix: Ground Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	706	25	10	mg/L	SM 2540 C		1	11/27/17 12:40	11/27/17 12:40	7110723	JPT
Inorganic Anions											
Chloride	4.2	0.25	0.02	mg/L	EPA 300.0		1	11/28/17 10:41	11/28/17 17:33	7110758	RLC
Fluoride	ND	0.30	0.03	mg/L	EPA 300.0		1	11/28/17 10:41	11/28/17 17:33	7110758	RLC
Sulfate	430	10	0.17	mg/L	EPA 300.0		10	11/28/17 10:41	11/28/17 20:39	7110758	RLC
Metals, Total											
Antimony	ND	0.0030	0.0006	mg/L	EPA 6020B		1	11/29/17 09:20	11/29/17 16:58	7110742	CSW
Arsenic	ND	0.0050	0.0005	mg/L	EPA 6020B		1	11/29/17 09:20	11/29/17 16:58	7110742	CSW
Barium	0.0320	0.0100	0.0004	mg/L	EPA 6020B		1	11/29/17 09:20	11/29/17 16:58	7110742	CSW
Beryllium	0.0036	0.0030	0.00009	mg/L	EPA 6020B		1	11/29/17 09:20	11/29/17 16:58	7110742	CSW
Boron	12.1	0.200	0.0298	mg/L	EPA 6020B		5	11/29/17 09:20	11/29/17 17:10	7110742	CSW
Cadmium	0.0003	0.0010	0.0001	mg/L	EPA 6020B	J	1	11/29/17 09:20	11/29/17 16:58	7110742	CSW
Calcium	44.4	2.50	0.202	mg/L	EPA 6020B		5	11/29/17 09:20	11/29/17 17:10	7110742	CSW
Chromium	ND	0.0100	0.0005	mg/L	EPA 6020B		1	11/29/17 09:20	11/29/17 16:58	7110742	CSW
Cobalt	0.0003	0.0100	0.0003	mg/L	EPA 6020B	J	1	11/29/17 09:20	11/29/17 16:58	7110742	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	11/29/17 09:20	11/29/17 16:58	7110742	CSW
Molybdenum	ND	0.0100	0.0010	mg/L	EPA 6020B		1	11/29/17 09:20	11/29/17 16:58	7110742	CSW
Selenium	0.0687	0.0100	0.0018	mg/L	EPA 6020B		1	11/29/17 09:20	11/29/17 16:58	7110742	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	11/29/17 09:20	11/29/17 16:58	7110742	CSW
Lithium	0.0043	0.0500	0.0015	mg/L	EPA 6020B	J	1	11/29/17 09:20	11/29/17 16:58	7110742	CSW
Mercury	0.00006	0.00050	0.000036	mg/L	EPA 7470A	B-01, J	1	11/28/17 16:30	11/29/17 17:13	7110762	MTC



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December 05, 2017

Report No.: AAK0755

General Chemistry - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7110723 - SM 2540 C											
Blank (7110723-BLK1)						Prepared & Analyzed: 11/27/17					
Total Dissolved Solids	ND	25	10	mg/L							
LCS (7110723-BS1)						Prepared & Analyzed: 11/27/17					
Total Dissolved Solids	413	25	10	mg/L	400.00		103	84-108			
Duplicate (7110723-DUP1)						Source: AAK0735-01 Prepared & Analyzed: 11/27/17					
Total Dissolved Solids	124	25	10	mg/L		125			0.8	10	



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Report No.: AAK0755

Inorganic Anions - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7110758 - EPA 300.0											
Blank (7110758-BLK1)						Prepared & Analyzed: 11/28/17					
Chloride	ND	0.25	0.02	mg/L							
Fluoride	ND	0.30	0.03	mg/L							
Sulfate	ND	1.0	0.02	mg/L							
LCS (7110758-BS1)						Prepared & Analyzed: 11/28/17					
Chloride	10.7	0.25	0.02	mg/L	10.000		107	90-110			
Fluoride	10.4	0.30	0.03	mg/L	10.000		104	90-110			
Sulfate	10.3	1.0	0.02	mg/L	10.000		103	90-110			
Matrix Spike (7110758-MS1)						Source: AAK0755-05RE1 Prepared & Analyzed: 11/28/17					
Chloride	14.2	0.25	0.02	mg/L	10.000	3.27	109	90-110			
Fluoride	11.1	0.30	0.03	mg/L	10.000	ND	111	90-110			QM-05
Sulfate	263	1.0	0.02	mg/L	10.000	430	NR	90-110			QM-05
Matrix Spike Dup (7110758-MSD1)						Source: AAK0755-05RE1 Prepared & Analyzed: 11/28/17					
Chloride	14.2	0.25	0.02	mg/L	10.000	3.27	109	90-110	0.09	15	
Fluoride	11.2	0.30	0.03	mg/L	10.000	ND	112	90-110	1	15	QM-05
Sulfate	263	1.0	0.02	mg/L	10.000	430	NR	90-110	0.02	15	QM-05



PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
 110 Technology Parkway, Peachtree Corners, GA 30092
 (770) 734-4200 FAX (770) 734-4201

Georgia Power
 2480 Maner Road
 Atlanta GA, 30339

Attention: Mr. Joju Abraham

December 05, 2017

Report No.: AAK0755

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	----	-----	-------	-------------	---------------	------	-------------	-----	-----------	-------

Batch 7110742 - EPA 3005A

Blank (7110742-BLK1)

Prepared & Analyzed: 11/29/17

Antimony	ND	0.0030	0.0006	mg/L							
Arsenic	ND	0.0050	0.0005	mg/L							
Barium	ND	0.0100	0.0004	mg/L							
Beryllium	ND	0.0030	0.00009	mg/L							
Boron	ND	0.0400	0.0060	mg/L							
Cadmium	ND	0.0010	0.0001	mg/L							
Calcium	ND	0.500	0.0404	mg/L							
Chromium	ND	0.0100	0.0005	mg/L							
Cobalt	ND	0.0100	0.0003	mg/L							
Copper	ND	0.0250	0.0003	mg/L							
Lead	ND	0.0050	0.00007	mg/L							
Molybdenum	ND	0.0100	0.0010	mg/L							
Nickel	ND	0.0100	0.0005	mg/L							
Selenium	ND	0.0100	0.0018	mg/L							
Silver	ND	0.0100	0.0002	mg/L							
Thallium	ND	0.0010	0.00005	mg/L							
Vanadium	ND	0.0100	0.0012	mg/L							
Zinc	ND	0.0100	0.0012	mg/L							
Lithium	ND	0.0500	0.0015	mg/L							

LCS (7110742-BS1)

Prepared & Analyzed: 11/29/17

Antimony	0.103	0.0030	0.0006	mg/L	0.10000		103	80-120			
Arsenic	0.0941	0.0050	0.0005	mg/L	0.10000		94	80-120			
Barium	0.103	0.0100	0.0004	mg/L	0.10000		103	80-120			
Beryllium	0.0993	0.0030	0.00009	mg/L	0.10000		99	80-120			
Cadmium	0.102	0.0010	0.0001	mg/L	0.10000		102	80-120			
Chromium	0.104	0.0100	0.0005	mg/L	0.10000		104	80-120			
Cobalt	0.102	0.0100	0.0003	mg/L	0.10000		102	80-120			
Copper	0.102	0.0250	0.0003	mg/L	0.10000		102	80-120			
Lead	0.101	0.0050	0.00007	mg/L	0.10000		101	80-120			
Nickel	0.102	0.0100	0.0005	mg/L	0.10000		102	80-120			
Selenium	0.0990	0.0100	0.0018	mg/L	0.10000		99	80-120			
Silver	0.0912	0.0100	0.0002	mg/L	0.10000		91	80-120			
Thallium	0.102	0.0010	0.00005	mg/L	0.10000		102	80-120			
Vanadium	0.106	0.0100	0.0012	mg/L	0.10000		106	80-120			
Zinc	0.106	0.0100	0.0012	mg/L	0.10000		106	80-120			
Lithium	0.101	0.0500	0.0015	mg/L	0.10000		101	80-120			



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Attention: Mr. Joju Abraham

December 05, 2017

Report No.: AAK0755

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7110742 - EPA 3005A											
Matrix Spike (7110742-MS1)			Source: AAK0755-04				Prepared & Analyzed: 11/29/17				
Antimony	0.104	0.0030	0.0006	mg/L	0.10000	ND	104	75-125			
Arsenic	0.101	0.0050	0.0005	mg/L	0.10000	0.0008	100	75-125			
Barium	0.167	0.0100	0.0004	mg/L	0.10000	0.0579	109	75-125			
Beryllium	0.0950	0.0030	0.00009	mg/L	0.10000	0.0004	95	75-125			
Cadmium	0.103	0.0010	0.0001	mg/L	0.10000	0.0002	103	75-125			
Chromium	0.107	0.0100	0.0005	mg/L	0.10000	0.0017	105	75-125			
Cobalt	0.111	0.0100	0.0003	mg/L	0.10000	0.0097	101	75-125			
Copper	0.104	0.0250	0.0003	mg/L	0.10000	0.0017	103	75-125			
Lead	0.0956	0.0050	0.00007	mg/L	0.10000	0.0002	95	75-125			
Nickel	0.105	0.0100	0.0005	mg/L	0.10000	0.0021	103	75-125			
Selenium	0.331	0.0100	0.0018	mg/L	0.10000	0.225	106	75-125			
Silver	0.0920	0.0100	0.0002	mg/L	0.10000	ND	92	75-125			
Thallium	0.0990	0.0010	0.00005	mg/L	0.10000	ND	99	75-125			
Vanadium	0.111	0.0100	0.0012	mg/L	0.10000	ND	111	75-125			
Zinc	0.111	0.0100	0.0012	mg/L	0.10000	0.0094	102	75-125			
Lithium	0.124	0.0500	0.0015	mg/L	0.10000	0.0255	98	75-125			
Matrix Spike Dup (7110742-MSD1)			Source: AAK0755-04				Prepared & Analyzed: 11/29/17				
Antimony	0.101	0.0030	0.0006	mg/L	0.10000	ND	101	75-125	3	20	
Arsenic	0.0997	0.0050	0.0005	mg/L	0.10000	0.0008	99	75-125	1	20	
Barium	0.162	0.0100	0.0004	mg/L	0.10000	0.0579	104	75-125	3	20	
Beryllium	0.0923	0.0030	0.00009	mg/L	0.10000	0.0004	92	75-125	3	20	
Cadmium	0.0979	0.0010	0.0001	mg/L	0.10000	0.0002	98	75-125	5	20	
Chromium	0.107	0.0100	0.0005	mg/L	0.10000	0.0017	105	75-125	0.1	20	
Cobalt	0.111	0.0100	0.0003	mg/L	0.10000	0.0097	102	75-125	0.4	20	
Copper	0.0982	0.0250	0.0003	mg/L	0.10000	0.0017	96	75-125	6	20	
Lead	0.0969	0.0050	0.00007	mg/L	0.10000	0.0002	97	75-125	1	20	
Nickel	0.103	0.0100	0.0005	mg/L	0.10000	0.0021	101	75-125	2	20	
Selenium	0.328	0.0100	0.0018	mg/L	0.10000	0.225	104	75-125	0.8	20	
Silver	0.0889	0.0100	0.0002	mg/L	0.10000	ND	89	75-125	3	20	
Thallium	0.0981	0.0010	0.00005	mg/L	0.10000	ND	98	75-125	1	20	
Vanadium	0.108	0.0100	0.0012	mg/L	0.10000	ND	108	75-125	3	20	
Zinc	0.108	0.0100	0.0012	mg/L	0.10000	0.0094	99	75-125	3	20	
Lithium	0.120	0.0500	0.0015	mg/L	0.10000	0.0255	94	75-125	3	20	



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Georgia Power
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 Atlanta GA, 30339

Attention: Mr. Joju Abraham

December 05, 2017

Report No.: AAK0755

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7110742 - EPA 3005A											
Post Spike (7110742-PS1)		Source: AAK0755-04				Prepared & Analyzed: 11/29/17					
Antimony	98.4			ug/L	100.00	0.0358	98	80-120			
Arsenic	101			ug/L	100.00	0.809	100	80-120			
Barium	168			ug/L	100.00	57.9	110	80-120			
Beryllium	93.1			ug/L	100.00	0.365	93	80-120			
Cadmium	102			ug/L	100.00	0.217	101	80-120			
Chromium	107			ug/L	100.00	1.71	106	80-120			
Cobalt	110			ug/L	100.00	9.73	100	80-120			
Copper	102			ug/L	100.00	1.71	100	80-120			
Lead	95.5			ug/L	100.00	0.166	95	80-120			
Nickel	104			ug/L	100.00	2.11	102	80-120			
Selenium	334			ug/L	100.00	225	109	80-120			
Silver	91.3			ug/L	100.00	0.0078	91	80-120			
Thallium	96.0			ug/L	100.00	0.0131	96	80-120			
Vanadium	108			ug/L	100.00	0.251	108	80-120			
Zinc	113			ug/L	100.00	9.39	104	80-120			
Lithium	121			ug/L	100.00	25.5	95	80-120			

Batch 7110762 - EPA 7470A

Blank (7110762-BLK1)											
						Prepared: 11/28/17 Analyzed: 11/29/17					
Mercury	0.00007	0.00050	0.000036	mg/L							J
LCS (7110762-BS1)											
						Prepared: 11/28/17 Analyzed: 11/29/17					
Mercury	0.00234	0.00050	0.000036	mg/L	2.5000E-3		94	80-120			
Matrix Spike (7110762-MS1)											
				Source: AAK0755-01				Prepared: 11/28/17 Analyzed: 11/29/17			
Mercury	0.00235	0.00050	0.000036	mg/L	2.5000E-3	0.00008	91	75-125			



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 2480 Maner Road
 Atlanta GA, 30339

Attention: Mr. Joju Abraham

December 05, 2017

Report No.: AAK0755

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7110762 - EPA 7470A											
Matrix Spike Dup (7110762-MSD1)			Source: AAK0755-01			Prepared: 11/28/17 Analyzed: 11/29/17					
Mercury	0.00225	0.00050	0.000036	mg/L	2.5000E-3	0.00008	87	75-125	5	20	
Post Spike (7110762-PS1)			Source: AAK0755-01			Prepared: 11/28/17 Analyzed: 11/29/17					
Mercury	1.60			ug/L	1.6667	0.0518	93	80-120			



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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

December 05, 2017

Legend

Definition of Laboratory Terms

- ND** - Not Detected at levels equal to or greater than the MDL
BRL - Not Detected at levels equal to or greater than the RL
RL - Reporting Limit **MDL** - Method Detection Limit
SOP - Method run per Pace Standard Operating Procedure
CFU - Colony Forming Units
DF - Dilution Factor **TIC** - Tentatively Identified Compound

Sample Information

N-Nitrosodiphenylamine breaks down to diphenylamine in the GCMS; both analytes are reported as N-Nitrosodiphenylamine. Pace is not NELAC certified for N-Nitrosodiphenylamine.

Phthalic acid and phthalic anhydride are reported as dimethyl phthalate

Maleic acid and maleic anhydride are reported as dimethyl malate

1,2-Diphenylhydrazine breaks down to azobenzene in the GCMS; both analytes are reported as azobenzene

Definition of Qualifiers

- QM-05** The spike recovery was outside acceptance limits for the MS and/or MSD and/or PDS due to suspected matrix interference. Sample results for the QC batch were accepted based on acceptable LCS recoveries.
- J** Estimated value less than Reporting Limit (RL) but greater than Method Detection Limit(MDL) (CLP J-Flag).
- B-01** Analyte was detected in the associated method blank at an estimated level equal to or greater than the MDL. Sample values reported as greater than the MDL and less than 10x the method blank value are reported as estimated values.

Note: Unless otherwise noted, all results are reported on an as received basis.



CHAIN OF CUSTODY RECORD

Pace Analytical Services, Inc.
 110 TECHNOLOGY PARKWAY, PEACHTREE CORNERS, GA 30092
 (770) 734-4200 : FAX (770) 734-4201 : www.asi-lab.com

PAGE: 1 OF 1

CLIENT NAME: Georgia Power CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER: 241 Ralph McGill Blvd SE B10185 Atlanta, GA 30308 404-506-7239		REPORT TO: Lauren Petty CC: Maria Padilla Heath McCorkle REQUESTED COMPLETION DATE: PO #: laburch@southernco.com		PROJECT NAME/STATE: Plant Yates Phase II Facilities PROJECT #: Phase 2 CCR	
Collection DATE	Collection TIME	MATRIX CODE*	C O M P	C O R A B	SAMPLE IDENTIFICATION
11-20-17	1245	GW	✓	✓	P2-38
11-20-17	1505	GW	✓	✓	P2-39
11-20-17	1620	GW	✓	✓	P2-40
11-21-17	1130	GW	✓	✓	P2-37
11-21-17	1235	GW	✓	✓	P2-41

CONTAINER TYPE	ANALYSIS REQUESTED	DATE/TIME	RELINQUISHED BY:	DATE/TIME
3	Metals App. III & IV (EPA 6020/7470)		<i>[Signature]</i>	11-21-2017 1640
7	Cl, F, SO ₄ & TDS (EPA 300.0 & SM 2540C)			
3	Radium 226 & 228 (SW-846 9315/9320)			

CONTAINER TYPE	ANALYSIS REQUESTED	DATE/TIME	RELINQUISHED BY:	DATE/TIME
4				
4				
4				
4				
4				

CONTAINER TYPE	ANALYSIS REQUESTED	DATE/TIME	RELINQUISHED BY:	DATE/TIME
3	Metals App. III & IV (EPA 6020/7470)			
7	Cl, F, SO ₄ & TDS (EPA 300.0 & SM 2540C)			
3	Radium 226 & 228 (SW-846 9315/9320)			

Plant Yates COC Phase II.xlsx

Sample Condition Upon Receipt



Client Name: GA Power Project # AAK0755

Courier: Fed Ex UPS USPS Client Commercial Pace Other _____
 Tracking #: _____
 Custody Seal on Cooler/Box Present: yes no Seals intact: yes no

Optional:
 Proj. Due Date: _____
 Proj. Name: _____

Packing Material: Bubble Wrap Bubble Bags None Other _____
 Thermometer Used THRO82 Type of Ice: Wet Blue None Samples on ice, cooling process has begun
 Cooler Temperature 3.1 Biological Tissue is Frozen: Yes No
 Temp should be above freezing to 8°C

Date and Initials of person examining contents: 11/24/17 C24

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Short Hold Time Analysis (<72hr):	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6.
Rush Turn Around Time Requested:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	7. <u>4 day TAT</u>
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Pace Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes date/time/ID/Analysis Matrix:	<u>GA</u>	
All containers needing preservation have been checked.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Initial when completed
		Lot # of added preservative
Samples checked for dechlorination:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	16.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):	_____	

Client Notification/ Resolution: _____ Field Data Required? Y / N
 Person Contacted: _____ Date/Time: _____
 Comments/ Resolution: _____

Project Manager Review: _____ Date: _____

Note: Whenever there is a discrepancy affecting North Carolina compliance samples a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)



PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

LOG-IN CHECKLIST

Printed: 11/22/2017 11:04:55AM

Attn: Mr. Joju Abraham

Client: Georgia Power

Project: CCR Event

Date Received: 11/21/17 16:40

Work Order: AAK0755

Logged In By: Charles Hawks

OBSERVATIONS

#Samples: 5

#Containers: 20

Minimum Temp(C): 3.1

Maximum Temp(C): 3.1

Custody Seal(s) Used: Yes

CHECKLIST ITEMS

- COC included with Samples YES
- Sample Container(s) Intact YES
- Chain of Custody Complete YES
- Sample Container(s) Match COC YES
- Custody seal Intact YES
- Temperature in Compliance YES
- Sufficient Sample Volume for Analysis YES
- Zero Headspace Maintained for VOA Analyses YES
- Samples labeled preserved (If Applicable) YES
- Samples received within Allowable Hold Times YES
- Samples Received on Ice YES
- Preservation Confirmed YES

Comments:

December 19, 2017

Mr. Joju Abraham
Georgia Power
2480 Maner Road
Atlanta, GA 30339

RE: Project: AAK0755 Plant Yates
Pace Project No.: 30237100

Dear Mr. Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on November 28, 2017. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Jacquelyn Collins
jacquelyn.collins@pacelabs.com
(724)850-5612
Project Manager

Enclosures



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: AAK0755 Plant Yates
Pace Project No.: 30237100

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
L-A-B DOD-ELAP Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification
Connecticut Certification #: PH-0694
Delaware Certification
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: 90133
Louisiana DHH/TNI Certification #: LA140008
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: PA00091
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification
Missouri Certification #: 235

Montana Certification #: Cert 0082
Nebraska Certification #: NE-05-29-14
Nevada Certification #: PA014572015-1
New Hampshire/TNI Certification #: 2976
New Jersey/TNI Certification #: PA 051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Oregon/TNI Certification #: PA200002
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN2867
Texas/TNI Certification #: T104704188-14-8
Utah/TNI Certification #: PA014572015-5
USDA Soil Permit #: P330-14-00213
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Certification
Wyoming Certification #: 8TMS-L

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: AAK0755 Plant Yates

Pace Project No.: 30237100

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30237100001	PZ-38	Water	11/20/17 12:45	11/28/17 10:00
30237100002	PZ-39	Water	11/20/17 15:05	11/28/17 10:00
30237100003	PZ-40	Water	11/20/17 16:20	11/28/17 10:00
30237100004	PZ-37	Water	11/21/17 11:30	11/28/17 10:00
30237100005	PZ-41	Water	11/21/17 12:35	11/28/17 10:00

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: AAK0755 Plant Yates

Pace Project No.: 30237100

Lab ID	Sample ID	Method	Analysts	Analytes Reported
30237100001	PZ-38	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30237100002	PZ-39	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30237100003	PZ-40	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30237100004	PZ-37	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30237100005	PZ-41	EPA 9315	LAL	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AAK0755 Plant Yates
Pace Project No.: 30237100

Sample: PZ-38		Lab ID: 30237100001	Collected: 11/20/17 12:45	Received: 11/28/17 10:00	Matrix: Water		
PWS:		Site ID:	Sample Type:				
Parameters	Method	Act ± Unc (MDC) Carr Trac		Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.279 ± 0.191 (0.316)		pCi/L	12/11/17 08:23	13982-63-3	
		C:82% T:NA					
Radium-228	EPA 9320	0.0627 ± 0.302 (0.691)		pCi/L	12/13/17 15:29	15262-20-1	
		C:80% T:78%					
Total Radium	Total Radium Calculation	0.342 ± 0.493 (1.01)		pCi/L	12/15/17 11:08	7440-14-4	

Sample: PZ-39		Lab ID: 30237100002	Collected: 11/20/17 15:05	Received: 11/28/17 10:00	Matrix: Water		
PWS:		Site ID:	Sample Type:				
Parameters	Method	Act ± Unc (MDC) Carr Trac		Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.321 ± 0.191 (0.288)		pCi/L	12/11/17 08:23	13982-63-3	
		C:90% T:NA					
Radium-228	EPA 9320	0.495 ± 0.337 (0.640)		pCi/L	12/13/17 15:29	15262-20-1	
		C:79% T:82%					
Total Radium	Total Radium Calculation	0.816 ± 0.528 (0.928)		pCi/L	12/15/17 11:08	7440-14-4	

Sample: PZ-40		Lab ID: 30237100003	Collected: 11/20/17 16:20	Received: 11/28/17 10:00	Matrix: Water		
PWS:		Site ID:	Sample Type:				
Parameters	Method	Act ± Unc (MDC) Carr Trac		Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.382 ± 0.201 (0.284)		pCi/L	12/11/17 08:23	13982-63-3	
		C:88% T:NA					
Radium-228	EPA 9320	0.536 ± 0.395 (0.770)		pCi/L	12/13/17 15:29	15262-20-1	
		C:80% T:75%					
Total Radium	Total Radium Calculation	0.918 ± 0.596 (1.05)		pCi/L	12/15/17 11:08	7440-14-4	

Sample: PZ-37		Lab ID: 30237100004	Collected: 11/21/17 11:30	Received: 11/28/17 10:00	Matrix: Water		
PWS:		Site ID:	Sample Type:				
Parameters	Method	Act ± Unc (MDC) Carr Trac		Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.394 ± 0.213 (0.322)		pCi/L	12/11/17 08:23	13982-63-3	
		C:86% T:NA					
Radium-228	EPA 9320	0.931 ± 0.398 (0.624)		pCi/L	12/13/17 15:29	15262-20-1	
		C:77% T:82%					
Total Radium	Total Radium Calculation	1.33 ± 0.611 (0.946)		pCi/L	12/15/17 11:08	7440-14-4	

Sample: PZ-41		Lab ID: 30237100005	Collected: 11/21/17 12:35	Received: 11/28/17 10:00	Matrix: Water		
PWS:		Site ID:	Sample Type:				
Parameters	Method	Act ± Unc (MDC) Carr Trac		Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.320 ± 0.197 (0.322)		pCi/L	12/11/17 08:23	13982-63-3	
		C:89% T:NA					
Radium-228	EPA 9320	1.69 ± 0.536 (0.647)		pCi/L	12/13/17 15:29	15262-20-1	
		C:80% T:74%					

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AAK0755 Plant Yates

Pace Project No.: 30237100

Sample: PZ-41 **Lab ID: 30237100005** Collected: 11/21/17 12:35 Received: 11/28/17 10:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Total Radium	Total Radium Calculation	2.01 ± 0.733 (0.969)	pCi/L	12/15/17 11:08	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: AAK0755 Plant Yates

Pace Project No.: 30237100

QC Batch: 281556 Analysis Method: EPA 9315
 QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium
 Associated Lab Samples: 30237100001, 30237100002, 30237100003, 30237100004, 30237100005

METHOD BLANK: 1382048 Matrix: Water
 Associated Lab Samples: 30237100001, 30237100002, 30237100003, 30237100004, 30237100005

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.288 ± 0.179 (0.277) C:92% T:NA	pCi/L	12/11/17 08:22	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: AAK0755 Plant Yates

Pace Project No.: 30237100

QC Batch: 281557

Analysis Method: EPA 9320

QC Batch Method: EPA 9320

Analysis Description: 9320 Radium 228

Associated Lab Samples: 30237100001, 30237100002, 30237100003, 30237100004, 30237100005

METHOD BLANK: 1382049

Matrix: Water

Associated Lab Samples: 30237100001, 30237100002, 30237100003, 30237100004, 30237100005

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	-0.0385 ± 0.305 (0.720) C:79% T:83%	pCi/L	12/13/17 15:28	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: AAK0755 Plant Yates

Pace Project No.: 30237100

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval).

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

REPORT OF LABORATORY ANALYSIS

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Chain of Custody



Workorder: AAK0755 Plant Yates Owner Received Date: Results Requested By: 12/19/2017

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers	Released By	Date/Time	Received By	Date/Time	Comments				
1	PZ-38	G	11/20/2017 12:45	AAK0755-01	GW	2					X	LAB USE ONLY 001			
2	PZ-39	G	11/20/2017 15:05	AAK0755-02	GW	2					X	002			
3	PZ-40	G	11/20/2017 16:20	AAK0755-03	GW	2					X	003			
4	PZ-37	G	11/21/2017 11:30	AAK0755-04	GW	2					X	004			
5	PZ-41	G	11/21/2017 12:35	AAK0755-05	GW	2					X	005			
6															
7															
8															
9															
10															
Transfers											Released By	Date/Time	Received By	Date/Time	Comments
1														11/28/17 1:00	
2															
3															

Report To:
Betsy McDaniel
Pace Analytical Atlanta
110 Technology Parkway
Peachtree Corners, GA 30092
Phone (770)-734-4200

Subcontract To:
Pace - Pittsburgh
1638 Roseytown Road
Stes. 2,3,4
Greensburg, PA 15601
Phone (724) 850-5600

Requested Analysis
W0#: 30237100
30237100

Workorder: AAK0755 Plant Yates Owner Received Date: Results Requested By: 12/19/2017

Report To: Betsy McDaniel
Pace Analytical Atlanta
110 Technology Parkway
Peachtree Corners, GA 30092
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Phone (724) 850-5600

Requested Analysis
W0#: 30237100
30237100

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers	Released By	Date/Time	Received By	Date/Time	Comments				
1	PZ-38	G	11/20/2017 12:45	AAK0755-01	GW	2					X	LAB USE ONLY 001			
2	PZ-39	G	11/20/2017 15:05	AAK0755-02	GW	2					X	002			
3	PZ-40	G	11/20/2017 16:20	AAK0755-03	GW	2					X	003			
4	PZ-37	G	11/21/2017 11:30	AAK0755-04	GW	2					X	004			
5	PZ-41	G	11/21/2017 12:35	AAK0755-05	GW	2					X	005			
6															
7															
8															
9															
10															
Transfers											Released By	Date/Time	Received By	Date/Time	Comments
1														11/28/17 1:00	
2															
3															

Cooler Temperature on Receipt 11/17 °C Custody Seal Y or N Received on Ice Y or N Sample Intact Y or N

***In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC
This chain of custody is considered complete as is since this information is available in the owner laboratory.

Pittsburgh Lab Sample Condition Upon Receipt



Client Name: Pace GA.

Project # 30237100

Courier: Fed Ex UPS USPS Client Commercial Pace Other _____

Label ZH
LIMS Login ANL

Tracking #: 741366600968

Custody Seal on Cooler/Box Present: yes no Seals intact: yes no

Thermometer Used N/A Type of Ice: Wet Blue None

Cooler Temperature Observed Temp _____ °C Correction Factor: _____ °C Final Temp: _____ °C

Temp should be above freezing to 6°C

Date and Initials of person examining contents: ZH 11/28/17

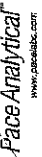
Comments:	Yes	No	N/A	
Chain of Custody Present:	/			1.
Chain of Custody Filled Out:	/			2.
Chain of Custody Relinquished:	/	/		3. <u>ZH 11/28/17</u>
Sampler Name & Signature on COC:	/			4.
Sample Labels match COC:	/			5.
-Includes date/time/ID Matrix: <u>WT</u>				
Samples Arrived within Hold Time:	/			6.
Short Hold Time Analysis (<72hr remaining):		/		7.
Rush Turn Around Time Requested:		/		8.
Sufficient Volume:	/			9.
Correct Containers Used:	/			10.
-Pace Containers Used:	/			
Containers Intact:	/			11.
Orthophosphate field filtered			/	12.
Hex Cr Aqueous Compliance/NPDES sample field filtered			/	13.
Organic Samples checked for dechlorination:			/	14.
Filtered volume received for Dissolved tests			/	15.
All containers have been checked for preservation.	/			16. <u>PHCZ</u>
All containers needing preservation are found to be in compliance with EPA recommendation.	/			
exceptions: VOA, coliform, TOC, O&G, Phenolics				Initial when completed: <u>ZH</u> Date/time of preservation: _____
				Lot # of added preservative: _____
Headspace in VOA Vials (>6mm):			/	17.
Trip Blank Present:			/	18.
Trip Blank Custody Seals Present			/	
Rad Aqueous Samples Screened > 0.5 mrem/hr		/		Initial when completed: <u>ZH</u> Date: <u>11/28/17</u>

Client Notification/ Resolution:
 Person Contacted: _____ Date/Time: _____ Contacted By: _____
 Comments/ Resolution: _____

A check in this box indicates that additional information has been stored in ereports.

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)
 *PM review is documented electronically in LIMS. When the Project Manager closes the SRF Review schedule in LIMS. The review is in the Status section of the Workorder Edit Screen.

Quality Control Sample Performance Assessment



Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-228
 Analyst: JLW
 Date: 12/11/2017
 Worklist: 39025
 Matrix: DW

Method Blank Assessment	
MB Sample ID	1382049
MB concentration:	-0.039
MB Counting Uncertainty:	0.305
MB MDC:	0.720
MB Numerical Performance Indicator:	-0.25
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment		Y
LCS39025		12/13/2017
Count Date:	12/13/2017	17-033
Spike I.D.:	17-033	22.817
Spike Concentration (pCi/mL):	22.817	0.20
Volume Used (mL):	0.20	0.819
Aliquot Volume (L, g, F):	0.813	5.573
Target Conc. (pCi/L, g, F):	5.616	0.401
Uncertainty (Calculated):	0.404	5.834
Result (pCi/L, g, F):	7.451	0.629
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.710	0.69
Numerical Performance Indicator:	4.40	104.70%
Percent Recovery:	132.69%	N/A
Status vs Numerical Indicator:	N/A	Pass
Status vs Recovery:	Pass	

Duplicate Sample Assessment	
Sample I.D.:	LCS39025
Duplicate Sample I.D.:	LCS39025
Sample Result (pCi/L, g, F):	7.451
Sample Result Counting Uncertainty (pCi/L, g, F):	0.710
Sample Duplicate Result (pCi/L, g, F):	5.834
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.629
Are sample and/or duplicate results below MDC?	NO
Duplicate Numerical Performance Indicator:	3.342
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	23.58%
Duplicate Status vs Numerical Indicator:	N/A
Duplicate Status vs RPD:	Pass

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

Callahan

*55747
12/14/17*

Sample Matrix Spike Control Assessment	
Sample Collection Date:	
Sample I.D.:	
Sample MS I.D.:	
Sample MSD I.D.:	
Spikes I.D.:	
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	
Spike Volume Used in MS (mL):	
Spike Volume Used in MSD (mL):	
MS Aliquot (L, g, F):	
MS Target Conc. (pCi/L, g, F):	
MSD Aliquot (L, g, F):	
MSD Target Conc. (pCi/L, g, F):	
Spike uncertainty (calculated):	
Sample Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Sample Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
MS Numerical Performance Indicator:	
MSD Numerical Performance Indicator:	
MS Percent Recovery:	
MSD Percent Recovery:	
MS Status vs Numerical Indicator:	
MSD Status vs Numerical Indicator:	
MS Status vs Recovery:	
MSD Status vs Recovery:	

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.:	
Sample MS I.D.:	
Sample MSD I.D.:	
Sample Matrix Spike Result:	
Sample Matrix Spike Duplicate Result:	
Sample Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
Duplicate Numerical Performance Indicator:	
(Based on the Percent Recoveries) MS/MSD Duplicate RPD:	
MS/MSD Duplicate Status vs Numerical Indicator:	
MS/MSD Duplicate Status vs RPD:	

Quality Control Sample Performance Assessment

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-226
Analyst: LAL
Date: 12/7/2017
Worklist: 39024
Matrix: DW



Method Blank Assessment	
MB Sample ID	1382048
MB Concentration:	0.288
n/B Counting Uncertainty:	0.174
MB MDC:	0.277
MB Numerical Performance Indicator:	3.25
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	See Comment*

Laboratory Control Sample Assessment	
LCS (Y or N)?	Y
LCS39024	LCS39024
Count Date:	12/11/2017
Spike I.D.:	17-030
Spike Concentration (pCi/mL):	80.184
Volume Used (mL):	0.10
Aliquot Volume (L, g, F):	0.506
Target Conc. (pCi/L, g, F):	15.846
Uncertainty (Calculated):	1.460
Result (pCi/L, g, F):	14.413
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.986
Numerical Performance Indicator:	-1.98
Percent Recovery:	88.75%
Status vs Numerical Indicator:	N/A
Status vs Recovery:	Pass

Duplicate Sample Assessment	
Sample I.D.:	LCS39024
Duplicate Sample I.D.:	LCS39024
Sample Result (pCi/L, g, F):	14.413
Sample Result Counting Uncertainty (pCi/L, g, F):	0.979
Sample Duplicate Result (pCi/L, g, F):	14.064
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.986
Are sample and/or duplicate results below MDC?	NO
Duplicate Numerical Performance Indicator:	0.493
Duplicate RPD:	2.45%
Duplicate Status vs Numerical Indicator:	N/A
Duplicate Status vs RPD:	Pass

Sample Matrix Spike Control Assessment	
Sample Collection Date:	
Sample I.D.:	
Sample MS I.D.:	
Sample MSD I.D.:	
Spike I.D.:	
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	
Spike Volume Used in MS (mL):	
Spike Volume Used in MSD (mL):	
MS Aliquot (L, g, F):	
MS Target Conc. (pCi/L, g, F):	
MSD Aliquot (L, g, F):	
MSD Target Conc. (pCi/L, g, F):	
Spike uncertainty (calculated):	
Sample Result:	
Sample Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Result:	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
MS Numerical Performance Indicator:	
MSD Numerical Performance Indicator:	
MS Percent Recovery:	
MSD Percent Recovery:	
MS Status vs Numerical Indicator:	
MS Status vs Recovery:	
MSD Status vs Recovery:	

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.:	
Sample MS I.D.:	
Sample MSD I.D.:	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Sample Matrix Spike Duplicate Counting Uncertainty (pCi/L, g, F):	
Duplicate Numerical Performance Indicator:	
MS/MSD Duplicate RPD:	
MS/MSD Duplicate Status vs Numerical Indicator:	
MS/MSD Duplicate Status vs RPD:	

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:
*The method blank result is below the reporting limit for this analysis and is acceptable.

Am 12/12/17

Am 12/11/17

Product Name: Low-Flow System

Date: 2018-01-11 11:14:51

Project Information:

Operator Name Chris Parker
Company Name ACC
Project Name Plant Yates - Phase 2
Site Name Plant Yates - Phase 2 CCR
Latitude 33° 27' 27.71"
Longitude -84° -53' -49.99"
Sonde SN 466086
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type Peripump
Tubing Type poly
Tubing Diameter .17 in
Tubing Length 47.0 ft

Pump placement from TOC 41.9 ft

Well Information:

Well ID PZ-37
Well diameter 2 in
Well Total Depth 46.90 ft
Screen Length 10 ft
Depth to Water 11.69 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.2997809 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 4 in
Total Volume Pumped 6.6 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	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	10:49:33	300.03	15.80	6.99	1061.94	3.61	11.90	1.17	-63.62
Last 5	10:54:33	600.00	16.57	6.25	1161.05	3.70	11.90	0.24	-60.46
Last 5	10:59:33	899.99	16.73	5.96	1175.89	5.51	11.90	0.18	-44.56
Last 5	11:04:33	1199.99	16.69	5.87	1184.20	3.51	11.90	0.15	-37.96
Last 5	11:09:34	1500.99	16.78	5.87	1202.37	4.45	12.00	0.14	-32.47
Variance 0			0.16	-0.29	14.84			-0.06	15.91
Variance 1			-0.04	-0.10	8.31			-0.03	6.60
Variance 2			0.09	0.00	18.17			-0.02	5.48

Notes

Collected at 11:15. Light rain 50s

Grab Samples

Product Name: Low-Flow System

Date: 2018-01-12 13:46:22

Project Information:

Operator Name Chris Parker
Company Name ACC
Project Name Plant Yates - Phase 2
Site Name Plant Yates - Phase 2 CCR
Latitude 33° 27' 27.71"
Longitude -84° -53' -49.99"
Sonde SN 466086
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type QED
Tubing Type Bladder
Tubing Diameter .17 in
Tubing Length 53.0 ft

Pump placement from TOC 45.3 ft

Well Information:

Well ID PZ-38
Well diameter 2 in
Well Total Depth 50.28 ft
Screen Length 10 ft
Depth to Water 32.12 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.7215614 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 7 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	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	13:24:42	899.99	15.13	4.77	1656.40	1.23	32.70	0.70	109.49
Last 5	13:29:42	1199.99	15.30	4.74	1653.59	1.41	32.70	0.70	108.62
Last 5	13:34:42	1500.04	15.74	4.77	1651.83	1.02	32.80	0.67	107.48
Last 5	13:39:42	1800.00	15.80	4.77	1648.23	0.91	32.80	0.53	107.73
Last 5	13:44:42	2099.97	15.98	4.78	1648.03	1.05	32.80	0.44	107.45
Variance 0			0.44	0.02	-1.76			-0.03	-1.14
Variance 1			0.05	0.00	-3.60			-0.14	0.25
Variance 2			0.18	0.01	-0.20			-0.09	-0.28

Notes

Collected at 13:50. Light rain 50s

Grab Samples

Product Name: Low-Flow System

Date: 2018-01-11 13:07:33

Project Information:

Operator Name Chris Parker
Company Name ACC
Project Name Plant Yates - Phase 2
Site Name Plant Yates - Phase 2 CCR
Latitude 33° 27' 27.71"
Longitude -84° -53' -49.99"
Sonde SN 466086
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type Peripump
Tubing Type poly
Tubing Diameter .17 in
Tubing Length 70 ft

Pump placement from TOC 63.5 ft

Well Information:

Well ID PZ-39
Well diameter 2 in
Well Total Depth 68.50 ft
Screen Length 10 ft
Depth to Water 25.19 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.4024396 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 5 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	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	12:45:15	1500.00	16.87	6.38	103.62	2.55	25.60	2.69	-7.08
Last 5	12:50:15	1799.98	16.83	6.36	101.41	1.89	25.60	3.25	-5.66
Last 5	12:55:15	2099.99	16.82	6.35	101.10	2.29	25.60	3.63	-4.71
Last 5	13:00:15	2399.98	16.80	6.35	97.42	2.12	25.60	3.74	-4.44
Last 5	13:05:15	2699.98	16.78	6.29	97.85	1.96	25.60	3.93	-1.39
Variance 0			-0.00	-0.01	-0.31			0.37	0.95
Variance 1			-0.03	-0.00	-3.68			0.11	0.27
Variance 2			-0.01	-0.06	0.43			0.19	3.05

Notes

Collected at 13:10. Light rain, 50s

Grab Samples

Product Name: Low-Flow System

Date: 2018-01-10 16:12:43

Project Information:

Operator Name Chris Parker
Company Name ACC
Project Name Plant Yates - Phase 2
Site Name Plant Yates - Phase 2 CCR
Latitude 33° 27' 27.71"
Longitude -84° -53' -49.99"
Sonde SN 466086
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type QED
Tubing Type poly
Tubing Diameter .17 in
Tubing Length 49.0 ft

Pump placement from TOC 43.3 ft

Well Information:

Well ID YPZ-40
Well diameter 2 in
Well Total Depth 48.35 ft
Screen Length 10 ft
Depth to Water 27.60 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.7037078 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 8 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	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	15:49:06	900.02	17.95	5.47	191.78	0.62	28.30	5.55	101.61
Last 5	15:54:06	1200.00	17.65	5.17	196.73	0.40	28.30	5.60	104.93
Last 5	15:59:06	1500.00	17.65	5.05	200.27	0.63	28.30	5.90	107.56
Last 5	16:04:06	1800.00	17.55	5.00	202.15	0.56	28.30	5.88	107.69
Last 5	16:09:06	2100.00	17.38	4.97	202.46	0.38	28.30	5.85	108.26
Variance 0			-0.01	-0.12	3.54			0.30	2.63
Variance 1			-0.10	-0.05	1.88			-0.02	0.13
Variance 2			-0.17	-0.03	0.31			-0.03	0.57

Notes

Collected at 16:10. Cloudy 60s

Grab Samples

Product Name: Low-Flow System

Date: 2018-01-11 14:44:00

Project Information:

Operator Name Chris Parker
Company Name ACC
Project Name Plant Yates - Phase 2
Site Name Plant Yates - Phase 2 CCR
Latitude 33° 27' 27.71"
Longitude -84° -53' -49.99"
Sonde SN 466086
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type Peripump
Tubing Type poly
Tubing Diameter .17 in
Tubing Length 70 ft

Pump placement from TOC 62.9 ft

Well Information:

Well ID PZ-41
Well diameter 2 in
Well Total Depth 67.92 ft
Screen Length 10 ft
Depth to Water 29.48 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.4024396 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 5 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	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	14:20:00	900.01	16.80	4.81	877.28	1.36	29.90	1.42	51.62
Last 5	14:25:00	1200.01	16.82	4.73	887.66	0.85	29.90	1.46	61.35
Last 5	14:30:00	1500.01	16.91	4.77	894.58	0.74	29.90	1.35	64.51
Last 5	14:35:00	1799.99	16.88	4.72	895.04	0.59	29.90	1.25	71.06
Last 5	14:40:01	2100.98	16.90	4.73	896.92	0.78	29.90	1.20	73.72
Variance 0			0.10	0.04	6.92			-0.11	3.15
Variance 1			-0.04	-0.05	0.45			-0.10	6.55
Variance 2			0.02	0.01	1.89			-0.05	2.66

Notes

Collected at 1445. Light rain 50s.

Grab Samples



PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

Laboratory Report

Prepared For:

**Georgia Power
2480 Maner Road
Atlanta, GA 30339**

Attention: Mr. Joju Abraham

Report Number: ABA0377

January 26, 2018

Project: CCR Event

Project #: Plant Yates

We appreciate the opportunity to provide the analytical support for your project. The analytical results in this report are based upon information supplied by you, the client, and are for your exclusive use. If you have any questions regarding this data package, please do not hesitate to call.

Approved:

A handwritten signature in black ink that reads "Betsy McDaniel" written over a horizontal line.

Project Manager

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All test results relate only to the samples analyzed.



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(770) 734-4200 FAX (770) 734-4201

Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

January 26, 2018

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
PZ-40	ABA0377-01	Ground Water	01/10/18 16:10	01/12/18 16:15
PZ-37	ABA0377-02	Ground Water	01/11/18 11:15	01/12/18 16:15
PZ-39	ABA0377-03	Ground Water	01/11/18 13:10	01/12/18 16:15
PZ-41	ABA0377-04	Ground Water	01/11/18 14:45	01/12/18 16:15
PZ-38	ABA0377-05	Ground Water	01/12/18 13:50	01/12/18 16:15



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Georgia Power
2480 Maner Road
Atlanta GA, 30339

Attention: Mr. Joju Abraham

January 26, 2018

Case Narrative

The Radium analysis by methods EPA 9315/9320 was performed by Pace-Pittsburgh, 1638 Roseytown Road - Suites 2, 3, 4, Greensburg PA 15601. The Pace-Pittsburgh lab contact is Jacquelyn Collins at 724-850-5612.



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Georgia Power
 2480 Maner Road
 Atlanta GA, 30339

January 26, 2018

Attention: Mr. Joju Abraham

Report No.: ABA0377

Project: CCR Event

Client ID: PZ-40

Lab Number ID: ABA0377-01

Date/Time Sampled: 1/10/2018 4:10:00PM

Date/Time Received: 1/12/2018 4:15:00PM

Matrix: Ground Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	140	25	10	mg/L	SM 2540 C		1	01/16/18 13:38	01/16/18 13:38	8010374	JPT
Inorganic Anions											
Chloride	4.6	0.25	0.02	mg/L	EPA 300.0		1	01/18/18 13:24	01/19/18 04:34	8010428	MWB
Fluoride	ND	0.30	0.03	mg/L	EPA 300.0		1	01/18/18 13:24	01/19/18 04:34	8010428	MWB
Sulfate	66	5.0	0.08	mg/L	EPA 300.0		5	01/18/18 13:24	01/20/18 21:15	8010428	MWB
Metals, Total											
Antimony	ND	0.0030	0.0006	mg/L	EPA 6020B		1	01/15/18 09:20	01/19/18 20:32	8010319	CSW
Arsenic	ND	0.0050	0.0005	mg/L	EPA 6020B		1	01/15/18 09:20	01/19/18 20:32	8010319	CSW
Barium	0.0656	0.0100	0.0004	mg/L	EPA 6020B		1	01/15/18 09:20	01/19/18 20:32	8010319	CSW
Beryllium	0.0003	0.0030	0.00009	mg/L	EPA 6020B	J	1	01/15/18 09:20	01/19/18 20:32	8010319	CSW
Boron	0.150	0.0400	0.0060	mg/L	EPA 6020B		1	01/15/18 09:20	01/19/18 20:32	8010319	CSW
Cadmium	ND	0.0010	0.0001	mg/L	EPA 6020B		1	01/15/18 09:20	01/19/18 20:32	8010319	CSW
Calcium	10.2	5.00	2.02	mg/L	EPA 6020B		50	01/15/18 09:20	01/19/18 20:38	8010319	CSW
Chromium	ND	0.0100	0.0005	mg/L	EPA 6020B		1	01/15/18 09:20	01/19/18 20:32	8010319	CSW
Cobalt	ND	0.0100	0.0003	mg/L	EPA 6020B		1	01/15/18 09:20	01/19/18 20:32	8010319	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	01/15/18 09:20	01/19/18 20:32	8010319	CSW
Molybdenum	ND	0.0100	0.0010	mg/L	EPA 6020B		1	01/15/18 09:20	01/19/18 20:32	8010319	CSW
Selenium	0.0043	0.0100	0.0018	mg/L	EPA 6020B	J	1	01/15/18 09:20	01/19/18 20:32	8010319	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	01/15/18 09:20	01/19/18 20:32	8010319	CSW
Lithium	ND	0.0500	0.0015	mg/L	EPA 6020B		1	01/15/18 09:20	01/19/18 20:32	8010319	CSW
Mercury	ND	0.00050	0.000036	mg/L	EPA 7470A		1	01/24/18 11:05	01/25/18 12:47	8010385	MTC



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Georgia Power
 2480 Maner Road
 Atlanta GA, 30339

Attention: Mr. Joju Abraham

January 26, 2018

Report No.: ABA0377

Project: CCR Event

Client ID: PZ-37

Lab Number ID: ABA0377-02

Date/Time Sampled: 1/11/2018 11:15:00AM

Date/Time Received: 1/12/2018 4:15:00PM

Matrix: Ground Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	1020	25	10	mg/L	SM 2540 C		1	01/16/18 13:38	01/16/18 13:38	8010374	JPT
Inorganic Anions											
Chloride	5.0	0.25	0.02	mg/L	EPA 300.0		1	01/18/18 13:24	01/19/18 04:54	8010428	MWB
Fluoride	ND	0.30	0.03	mg/L	EPA 300.0		1	01/18/18 13:24	01/19/18 04:54	8010428	MWB
Sulfate	590	20	0.34	mg/L	EPA 300.0		20	01/18/18 13:24	01/20/18 21:37	8010428	MWB
Metals, Total											
Antimony	ND	0.0030	0.0006	mg/L	EPA 6020B		1	01/15/18 09:20	01/19/18 20:44	8010319	CSW
Arsenic	0.0006	0.0050	0.0005	mg/L	EPA 6020B	J	1	01/15/18 09:20	01/19/18 20:44	8010319	CSW
Barium	0.0549	0.0100	0.0004	mg/L	EPA 6020B		1	01/15/18 09:20	01/19/18 20:44	8010319	CSW
Beryllium	0.0003	0.0030	0.00009	mg/L	EPA 6020B	J	1	01/15/18 09:20	01/19/18 20:44	8010319	CSW
Boron	15.8	2.00	0.298	mg/L	EPA 6020B		50	01/15/18 09:20	01/19/18 20:49	8010319	CSW
Cadmium	0.0004	0.0010	0.0001	mg/L	EPA 6020B	J	1	01/15/18 09:20	01/19/18 20:44	8010319	CSW
Calcium	119	25.0	2.02	mg/L	EPA 6020B		50	01/15/18 09:20	01/19/18 20:49	8010319	CSW
Chromium	0.0010	0.0100	0.0005	mg/L	EPA 6020B	J	1	01/15/18 09:20	01/19/18 20:44	8010319	CSW
Cobalt	0.0131	0.0100	0.0003	mg/L	EPA 6020B		1	01/15/18 09:20	01/19/18 20:44	8010319	CSW
Lead	0.0001	0.0050	0.00007	mg/L	EPA 6020B	J	1	01/15/18 09:20	01/19/18 20:44	8010319	CSW
Molybdenum	0.0015	0.0100	0.0010	mg/L	EPA 6020B	J	1	01/15/18 09:20	01/19/18 20:44	8010319	CSW
Selenium	0.168	0.0100	0.0018	mg/L	EPA 6020B		1	01/15/18 09:20	01/19/18 20:44	8010319	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	01/15/18 09:20	01/19/18 20:44	8010319	CSW
Lithium	0.0271	0.0500	0.0015	mg/L	EPA 6020B	J	1	01/15/18 09:20	01/19/18 20:44	8010319	CSW
Mercury	ND	0.00050	0.000036	mg/L	EPA 7470A		1	01/24/18 11:05	01/25/18 12:49	8010385	MTC



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Georgia Power
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 Atlanta GA, 30339

Attention: Mr. Joju Abraham

January 26, 2018

Report No.: ABA0377

Project: CCR Event

Client ID: PZ-39

Lab Number ID: ABA0377-03

Date/Time Sampled: 1/11/2018 1:10:00PM

Date/Time Received: 1/12/2018 4:15:00PM

Matrix: Ground Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	153	25	10	mg/L	SM 2540 C		1	01/16/18 13:38	01/16/18 13:38	8010374	JPT
Inorganic Anions											
Chloride	1.6	0.25	0.02	mg/L	EPA 300.0		1	01/18/18 13:24	01/19/18 05:15	8010428	MWB
Fluoride	ND	0.30	0.03	mg/L	EPA 300.0		1	01/18/18 13:24	01/19/18 05:15	8010428	MWB
Sulfate	23	1.0	0.02	mg/L	EPA 300.0		1	01/18/18 13:24	01/19/18 05:15	8010428	MWB
Metals, Total											
Antimony	ND	0.0030	0.0006	mg/L	EPA 6020B		1	01/15/18 09:20	01/19/18 20:55	8010319	CSW
Arsenic	ND	0.0050	0.0005	mg/L	EPA 6020B		1	01/15/18 09:20	01/19/18 20:55	8010319	CSW
Barium	0.0077	0.0100	0.0004	mg/L	EPA 6020B	J	1	01/15/18 09:20	01/19/18 20:55	8010319	CSW
Beryllium	ND	0.0030	0.00009	mg/L	EPA 6020B		1	01/15/18 09:20	01/19/18 20:55	8010319	CSW
Boron	0.0255	0.0400	0.0060	mg/L	EPA 6020B	J	1	01/15/18 09:20	01/19/18 20:55	8010319	CSW
Cadmium	ND	0.0010	0.0001	mg/L	EPA 6020B		1	01/15/18 09:20	01/19/18 20:55	8010319	CSW
Calcium	1.54	0.500	0.0404	mg/L	EPA 6020B		1	01/15/18 09:20	01/19/18 20:55	8010319	CSW
Chromium	ND	0.0100	0.0005	mg/L	EPA 6020B		1	01/15/18 09:20	01/19/18 20:55	8010319	CSW
Cobalt	ND	0.0100	0.0003	mg/L	EPA 6020B		1	01/15/18 09:20	01/19/18 20:55	8010319	CSW
Lead	0.0002	0.0050	0.00007	mg/L	EPA 6020B	J	1	01/15/18 09:20	01/19/18 20:55	8010319	CSW
Molybdenum	0.0074	0.0100	0.0010	mg/L	EPA 6020B	J	1	01/15/18 09:20	01/19/18 20:55	8010319	CSW
Selenium	ND	0.0100	0.0018	mg/L	EPA 6020B		1	01/15/18 09:20	01/19/18 20:55	8010319	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	01/15/18 09:20	01/19/18 20:55	8010319	CSW
Lithium	0.0019	0.0500	0.0015	mg/L	EPA 6020B	J	1	01/15/18 09:20	01/19/18 20:55	8010319	CSW
Mercury	ND	0.00050	0.000036	mg/L	EPA 7470A		1	01/24/18 11:05	01/25/18 12:51	8010385	MTC



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Georgia Power
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 Atlanta GA, 30339

January 26, 2018

Attention: Mr. Joju Abraham

Report No.: ABA0377

Project: CCR Event

Client ID: PZ-41

Lab Number ID: ABA0377-04

Date/Time Sampled: 1/11/2018 2:45:00PM

Date/Time Received: 1/12/2018 4:15:00PM

Matrix: Ground Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	701	25	10	mg/L	SM 2540 C		1	01/16/18 13:38	01/16/18 13:38	8010374	JPT
Inorganic Anions											
Chloride	3.8	0.25	0.02	mg/L	EPA 300.0		1	01/18/18 13:24	01/19/18 05:36	8010428	MWB
Fluoride	ND	0.30	0.03	mg/L	EPA 300.0		1	01/18/18 13:24	01/19/18 05:36	8010428	MWB
Sulfate	390	50	0.85	mg/L	EPA 300.0		50	01/18/18 13:24	01/20/18 22:21	8010428	MWB
Metals, Total											
Antimony	ND	0.0030	0.0006	mg/L	EPA 6020B		1	01/15/18 09:20	01/19/18 21:07	8010319	CSW
Arsenic	ND	0.0050	0.0005	mg/L	EPA 6020B		1	01/15/18 09:20	01/19/18 21:07	8010319	CSW
Barium	0.0300	0.0100	0.0004	mg/L	EPA 6020B		1	01/15/18 09:20	01/19/18 21:07	8010319	CSW
Beryllium	0.0037	0.0030	0.00009	mg/L	EPA 6020B		1	01/15/18 09:20	01/19/18 21:07	8010319	CSW
Boron	12.8	2.00	0.298	mg/L	EPA 6020B		50	01/15/18 09:20	01/19/18 21:12	8010319	CSW
Cadmium	0.0002	0.0010	0.0001	mg/L	EPA 6020B	J	1	01/15/18 09:20	01/19/18 21:07	8010319	CSW
Calcium	43.9	25.0	2.02	mg/L	EPA 6020B		50	01/15/18 09:20	01/19/18 21:12	8010319	CSW
Chromium	ND	0.0100	0.0005	mg/L	EPA 6020B		1	01/15/18 09:20	01/19/18 21:07	8010319	CSW
Cobalt	0.0003	0.0100	0.0003	mg/L	EPA 6020B	J	1	01/15/18 09:20	01/19/18 21:07	8010319	CSW
Lead	0.00007	0.0050	0.00007	mg/L	EPA 6020B	J	1	01/15/18 09:20	01/19/18 21:07	8010319	CSW
Molybdenum	ND	0.0100	0.0010	mg/L	EPA 6020B		1	01/15/18 09:20	01/19/18 21:07	8010319	CSW
Selenium	0.0690	0.0100	0.0018	mg/L	EPA 6020B		1	01/15/18 09:20	01/19/18 21:07	8010319	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	01/15/18 09:20	01/19/18 21:07	8010319	CSW
Lithium	0.0044	0.0500	0.0015	mg/L	EPA 6020B	J	1	01/15/18 09:20	01/19/18 21:07	8010319	CSW
Mercury	ND	0.00050	0.000036	mg/L	EPA 7470A		1	01/24/18 11:05	01/25/18 12:54	8010385	MTC



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Georgia Power
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 Atlanta GA, 30339

January 26, 2018

Attention: Mr. Joju Abraham

Report No.: ABA0377

Project: CCR Event

Client ID: PZ-38

Lab Number ID: ABA0377-05

Date/Time Sampled: 1/12/2018 1:50:00PM

Date/Time Received: 1/12/2018 4:15:00PM

Matrix: Ground Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	1400	25	10	mg/L	SM 2540 C		1	01/16/18 13:38	01/16/18 13:38	8010374	JPT
Inorganic Anions											
Chloride	6.6	0.25	0.02	mg/L	EPA 300.0		1	01/18/18 13:24	01/19/18 05:56	8010428	MWB
Fluoride	0.21	0.30	0.03	mg/L	EPA 300.0	J	1	01/18/18 13:24	01/19/18 05:56	8010428	MWB
Sulfate	880	100	1.7	mg/L	EPA 300.0		100	01/18/18 13:24	01/20/18 22:42	8010428	MWB
Metals, Total											
Antimony	ND	0.0030	0.0006	mg/L	EPA 6020B		1	01/15/18 09:20	01/19/18 21:30	8010319	CSW
Arsenic	0.0010	0.0050	0.0005	mg/L	EPA 6020B	J	1	01/15/18 09:20	01/19/18 21:30	8010319	CSW
Barium	0.0236	0.0100	0.0004	mg/L	EPA 6020B		1	01/15/18 09:20	01/19/18 21:30	8010319	CSW
Beryllium	0.0053	0.0030	0.00009	mg/L	EPA 6020B		1	01/15/18 09:20	01/19/18 21:30	8010319	CSW
Boron	18.7	2.00	0.298	mg/L	EPA 6020B		50	01/15/18 09:20	01/19/18 21:35	8010319	CSW
Cadmium	0.0029	0.0010	0.0001	mg/L	EPA 6020B		1	01/15/18 09:20	01/19/18 21:30	8010319	CSW
Calcium	178	25.0	2.02	mg/L	EPA 6020B		50	01/15/18 09:20	01/19/18 21:35	8010319	CSW
Chromium	ND	0.0100	0.0005	mg/L	EPA 6020B		1	01/15/18 09:20	01/19/18 21:30	8010319	CSW
Cobalt	ND	0.0100	0.0003	mg/L	EPA 6020B		1	01/15/18 09:20	01/19/18 21:30	8010319	CSW
Lead	0.0001	0.0050	0.00007	mg/L	EPA 6020B	J	1	01/15/18 09:20	01/19/18 21:30	8010319	CSW
Molybdenum	ND	0.0100	0.0010	mg/L	EPA 6020B		1	01/15/18 09:20	01/19/18 21:30	8010319	CSW
Selenium	0.249	0.0100	0.0018	mg/L	EPA 6020B		1	01/15/18 09:20	01/19/18 21:30	8010319	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	01/15/18 09:20	01/19/18 21:30	8010319	CSW
Lithium	0.0089	0.0500	0.0015	mg/L	EPA 6020B	J	1	01/15/18 09:20	01/19/18 21:30	8010319	CSW
Mercury	ND	0.00050	0.000036	mg/L	EPA 7470A		1	01/24/18 11:05	01/25/18 12:56	8010385	MTC



PACE ANALYTICAL SERVICES, LLC.

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Georgia Power
 2480 Maner Road
 Atlanta GA, 30339

Attention: Mr. Joju Abraham

January 26, 2018

Report No.: ABA0377

General Chemistry - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 8010374 - SM 2540 C											
Blank (8010374-BLK1)						Prepared & Analyzed: 01/16/18					
Total Dissolved Solids	ND	25	10	mg/L							
LCS (8010374-BS1)						Prepared & Analyzed: 01/16/18					
Total Dissolved Solids	417	25	10	mg/L	400.00		104	84-108			
Duplicate (8010374-DUP1)						Source: ABA0339-06 Prepared & Analyzed: 01/16/18					
Total Dissolved Solids	841	25	10	mg/L		838			0.4	10	
Duplicate (8010374-DUP2)						Source: ABA0339-08 Prepared & Analyzed: 01/16/18					
Total Dissolved Solids	33	25	10	mg/L		28			16	10	QR-03



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January 26, 2018

Report No.: ABA0377

Inorganic Anions - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 8010428 - EPA 300.0											
Blank (8010428-BLK1)						Prepared & Analyzed: 01/18/18					
Chloride	0.03	0.25	0.02	mg/L							J
Fluoride	ND	0.30	0.03	mg/L							
Sulfate	ND	1.0	0.02	mg/L							
LCS (8010428-BS1)						Prepared & Analyzed: 01/18/18					
Chloride	10.1	0.25	0.02	mg/L	10.000		101	90-110			
Fluoride	10.0	0.30	0.03	mg/L	10.000		100	90-110			
Sulfate	10.0	1.0	0.02	mg/L	10.000		100	90-110			
Matrix Spike (8010428-MS1)						Source: ABA0339-08 Prepared: 01/18/18 Analyzed: 01/19/18					
Chloride	10.1	0.25	0.02	mg/L	10.000	0.06	100	90-110			
Fluoride	10.1	0.30	0.03	mg/L	10.000	ND	101	90-110			
Sulfate	10.0	1.0	0.02	mg/L	10.000	0.04	100	90-110			
Matrix Spike (8010428-MS2)						Source: ABA0377-05 Prepared: 01/18/18 Analyzed: 01/19/18					
Chloride	15.4	0.25	0.02	mg/L	10.000	6.63	87	90-110			QM-02
Fluoride	10.9	0.30	0.03	mg/L	10.000	0.21	107	90-110			
Sulfate	408	1.0	0.02	mg/L	10.000	430	NR	90-110			QM-02
Matrix Spike Dup (8010428-MSD1)						Source: ABA0339-08 Prepared: 01/18/18 Analyzed: 01/19/18					
Chloride	10.1	0.25	0.02	mg/L	10.000	0.06	100	90-110	0.2	15	
Fluoride	10.1	0.30	0.03	mg/L	10.000	ND	101	90-110	0.4	15	
Sulfate	10.0	1.0	0.02	mg/L	10.000	0.04	100	90-110	0.1	15	



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Report No.: ABA0377

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 8010319 - EPA 3005A

Blank (8010319-BLK1)

Prepared: 01/15/18 Analyzed: 01/19/18

Antimony	ND	0.0030	0.0006	mg/L							
Arsenic	ND	0.0050	0.0005	mg/L							
Barium	ND	0.0100	0.0004	mg/L							
Beryllium	ND	0.0030	0.00009	mg/L							
Boron	ND	0.0400	0.0060	mg/L							
Cadmium	ND	0.0010	0.0001	mg/L							
Calcium	ND	0.500	0.0404	mg/L							
Chromium	ND	0.0100	0.0005	mg/L							
Cobalt	ND	0.0100	0.0003	mg/L							
Copper	ND	0.0250	0.0003	mg/L							
Iron	ND	0.0400	0.0043	mg/L							
Lead	ND	0.0050	0.00007	mg/L							
Magnesium	ND	0.0500	0.0063	mg/L							
Molybdenum	ND	0.0100	0.0010	mg/L							
Nickel	ND	0.0100	0.0005	mg/L							
Potassium	ND	0.100	0.0165	mg/L							
Selenium	ND	0.0100	0.0018	mg/L							
Silver	ND	0.0100	0.0002	mg/L							
Sodium	ND	0.100	0.0135	mg/L							
Thallium	ND	0.0010	0.00005	mg/L							
Vanadium	ND	0.0100	0.0012	mg/L							
Zinc	ND	0.0100	0.0012	mg/L							
Lithium	ND	0.0500	0.0015	mg/L							

LCS (8010319-BS1)

Prepared: 01/15/18 Analyzed: 01/19/18

Antimony	0.108	0.0030	0.0006	mg/L	0.10000		108	80-120			
Arsenic	0.100	0.0050	0.0005	mg/L	0.10000		100	80-120			
Barium	0.0981	0.0100	0.0004	mg/L	0.10000		98	80-120			
Beryllium	0.102	0.0030	0.00009	mg/L	0.10000		102	80-120			
Boron	1.02	0.0400	0.0060	mg/L	1.0000		102	80-120			
Cadmium	0.102	0.0010	0.0001	mg/L	0.10000		102	80-120			
Calcium	1.00	0.500	0.0404	mg/L	1.0000		100	80-120			
Chromium	0.103	0.0100	0.0005	mg/L	0.10000		103	80-120			
Cobalt	0.101	0.0100	0.0003	mg/L	0.10000		101	80-120			
Copper	0.100	0.0250	0.0003	mg/L	0.10000		100	80-120			
Iron	1.03	0.0400	0.0043	mg/L	1.0000		103	80-120			
Lead	0.101	0.0050	0.00007	mg/L	0.10000		101	80-120			
Magnesium	1.01	0.0500	0.0063	mg/L	1.0000		101	80-120			
Molybdenum	0.102	0.0100	0.0010	mg/L	0.10000		102	80-120			
Nickel	0.0995	0.0100	0.0005	mg/L	0.10000		99	80-120			



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Report No.: ABA0377

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 8010319 - EPA 3005A											
LCS (8010319-BS1)						Prepared: 01/15/18 Analyzed: 01/19/18					
Potassium	1.02	0.100	0.0165	mg/L	1.0000		102	80-120			
Selenium	0.101	0.0100	0.0018	mg/L	0.10000		101	80-120			
Silver	0.102	0.0100	0.0002	mg/L	0.10000		102	80-120			
Sodium	0.991	0.100	0.0135	mg/L	1.0000		99	80-120			
Thallium	0.102	0.0010	0.00005	mg/L	0.10000		102	80-120			
Vanadium	0.109	0.0100	0.0012	mg/L	0.10000		109	80-120			
Zinc	0.104	0.0100	0.0012	mg/L	0.10000		104	80-120			
Lithium	0.104	0.0500	0.0015	mg/L	0.10000		104	80-120			
Matrix Spike (8010319-MS1)						Source: ABA0339-01 Prepared: 01/15/18 Analyzed: 01/19/18					
Antimony	0.109	0.0030	0.0006	mg/L	0.10000	ND	109	75-125			
Arsenic	0.101	0.0050	0.0005	mg/L	0.10000	0.0006	101	75-125			
Barium	0.167	0.0100	0.0004	mg/L	0.10000	0.0702	97	75-125			
Beryllium	0.0948	0.0030	0.00009	mg/L	0.10000	ND	95	75-125			
Boron	1.79	0.0400	0.0060	mg/L	1.0000	0.838	95	75-125			
Cadmium	0.101	0.0010	0.0001	mg/L	0.10000	0.0002	101	75-125			
Calcium	50.8	25.0	2.02	mg/L	1.0000	47.6	323	75-125			QM-02
Chromium	0.0978	0.0100	0.0005	mg/L	0.10000	ND	98	75-125			
Cobalt	0.0919	0.0100	0.0003	mg/L	0.10000	ND	92	75-125			
Copper	0.0937	0.0250	0.0003	mg/L	0.10000	0.0004	93	75-125			
Iron	1.44	0.0400	0.0043	mg/L	1.0000	0.477	97	75-125			
Lead	0.0988	0.0050	0.00007	mg/L	0.10000	0.0009	98	75-125			
Magnesium	15.9	2.50	0.314	mg/L	1.0000	13.9	208	75-125			QM-02
Molybdenum	0.101	0.0100	0.0010	mg/L	0.10000	ND	101	75-125			
Nickel	0.0920	0.0100	0.0005	mg/L	0.10000	ND	92	75-125			
Potassium	10.9	5.00	0.824	mg/L	1.0000	9.11	176	75-125			QM-02
Selenium	0.102	0.0100	0.0018	mg/L	0.10000	ND	102	75-125			
Silver	0.0977	0.0100	0.0002	mg/L	0.10000	ND	98	75-125			
Sodium	36.2	5.00	0.674	mg/L	1.0000	32.3	389	75-125			QM-02
Thallium	0.0995	0.0010	0.00005	mg/L	0.10000	0.00006	99	75-125			
Vanadium	0.103	0.0100	0.0012	mg/L	0.10000	0.0012	102	75-125			
Zinc	0.110	0.0100	0.0012	mg/L	0.10000	0.0106	100	75-125			
Lithium	0.0978	0.0500	0.0015	mg/L	0.10000	ND	98	75-125			



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January 26, 2018

Report No.: ABA0377

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 8010319 - EPA 3005A											
Matrix Spike Dup (8010319-MSD1)			Source: ABA0339-01			Prepared: 01/15/18 Analyzed: 01/19/18					
Antimony	0.110	0.0030	0.0006	mg/L	0.10000	ND	110	75-125	0.9	20	
Arsenic	0.100	0.0050	0.0005	mg/L	0.10000	0.0006	100	75-125	1	20	
Barium	0.171	0.0100	0.0004	mg/L	0.10000	0.0702	100	75-125	2	20	
Beryllium	0.0929	0.0030	0.00009	mg/L	0.10000	ND	93	75-125	2	20	
Boron	1.76	0.0400	0.0060	mg/L	1.0000	0.838	92	75-125	2	20	
Cadmium	0.0981	0.0010	0.0001	mg/L	0.10000	0.0002	98	75-125	3	20	
Calcium	49.5	25.0	2.02	mg/L	1.0000	47.6	187	75-125	3	20	QM-02
Chromium	0.0972	0.0100	0.0005	mg/L	0.10000	ND	97	75-125	0.6	20	
Cobalt	0.0943	0.0100	0.0003	mg/L	0.10000	ND	94	75-125	3	20	
Copper	0.0966	0.0250	0.0003	mg/L	0.10000	0.0004	96	75-125	3	20	
Iron	1.44	0.0400	0.0043	mg/L	1.0000	0.477	96	75-125	0.5	20	
Lead	0.0966	0.0050	0.00007	mg/L	0.10000	0.0009	96	75-125	2	20	
Magnesium	15.2	2.50	0.314	mg/L	1.0000	13.9	137	75-125	5	20	QM-02
Molybdenum	0.105	0.0100	0.0010	mg/L	0.10000	ND	105	75-125	4	20	
Nickel	0.0950	0.0100	0.0005	mg/L	0.10000	ND	95	75-125	3	20	
Potassium	10.4	5.00	0.824	mg/L	1.0000	9.11	133	75-125	4	20	QM-02
Selenium	0.0973	0.0100	0.0018	mg/L	0.10000	ND	97	75-125	5	20	
Silver	0.101	0.0100	0.0002	mg/L	0.10000	ND	101	75-125	4	20	
Sodium	34.0	5.00	0.674	mg/L	1.0000	32.3	162	75-125	6	20	QM-02
Thallium	0.0971	0.0010	0.00005	mg/L	0.10000	0.00006	97	75-125	2	20	
Vanadium	0.103	0.0100	0.0012	mg/L	0.10000	0.0012	102	75-125	0.2	20	
Zinc	0.112	0.0100	0.0012	mg/L	0.10000	0.0106	101	75-125	1	20	
Lithium	0.0970	0.0500	0.0015	mg/L	0.10000	ND	97	75-125	0.8	20	
Post Spike (8010319-PS1)			Source: ABA0339-01			Prepared: 01/15/18 Analyzed: 01/19/18					
Antimony	111			ug/L	100.00	0.201	111	80-120			
Arsenic	99.8			ug/L	100.00	0.606	99	80-120			
Barium	168			ug/L	100.00	70.2	98	80-120			
Beryllium	93.4			ug/L	100.00	0.0559	93	80-120			
Boron	1740			ug/L	1000.0	838	90	80-120			
Cadmium	99.0			ug/L	100.00	0.172	99	80-120			
Calcium	52500			ug/L	1000.0	47600	493	80-120			QM-02
Chromium	96.6			ug/L	100.00	0.439	96	80-120			
Cobalt	94.6			ug/L	100.00	0.212	94	80-120			
Copper	94.7			ug/L	100.00	0.435	94	80-120			
Iron	1460			ug/L	1000.0	477	98	80-120			
Lead	100			ug/L	100.00	0.874	99	80-120			
Magnesium	15900			ug/L	1000.0	13900	203	80-120			QM-02
Molybdenum	105			ug/L	100.00	0.137	105	80-120			
Nickel	94.3			ug/L	100.00	0.463	94	80-120			



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January 26, 2018

Report No.: ABA0377

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 8010319 - EPA 3005A											
Post Spike (8010319-PS1)			Source: ABA0339-01			Prepared: 01/15/18 Analyzed: 01/19/18					
Potassium	10300			ug/L	1000.0	9110	115	80-120			
Selenium	100			ug/L	100.00	0.493	100	80-120			
Silver	101			ug/L	100.00	0.0085	101	80-120			
Sodium	36000			ug/L	1000.0	32300	365	80-120			QM-02
Thallium	100			ug/L	100.00	0.0613	100	80-120			
Vanadium	102			ug/L	100.00	1.21	101	80-120			
Zinc	111			ug/L	100.00	10.6	101	80-120			
Lithium	98.2			ug/L	100.00	0.387	98	80-120			
Batch 8010385 - EPA 7470A											
Blank (8010385-BLK1)						Prepared: 01/24/18 Analyzed: 01/25/18					
Mercury	ND	0.00050	0.000036	mg/L							
LCS (8010385-BS1)						Prepared: 01/24/18 Analyzed: 01/25/18					
Mercury	0.00248	0.00050	0.000036	mg/L	2.5000E-3		99	80-120			
Matrix Spike (8010385-MS1)			Source: ABA0377-01			Prepared: 01/24/18 Analyzed: 01/25/18					
Mercury	0.00254	0.00050	0.000036	mg/L	2.5000E-3	ND	102	75-125			
Matrix Spike Dup (8010385-MSD1)			Source: ABA0377-01			Prepared: 01/24/18 Analyzed: 01/25/18					
Mercury	0.00258	0.00050	0.000036	mg/L	2.5000E-3	ND	103	75-125	2	20	
Post Spike (8010385-PS1)			Source: ABA0377-01			Prepared: 01/24/18 Analyzed: 01/25/18					
Mercury	1.82			ug/L	1.6667	-0.0231	109	80-120			



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Legend

Definition of Laboratory Terms

- ND** - Not Detected at levels equal to or greater than the MDL
- BRL** - Not Detected at levels equal to or greater than the RL
- RL** - Reporting Limit **MDL** - Method Detection Limit
- SOP** - Method run per Pace Standard Operating Procedure
- CFU** - Colony Forming Units
- DF** - Dilution Factor **TIC** - Tentatively Identified Compound

Sample Information

N-Nitrosodiphenylamine breaks down to diphenylamine in the GCMS; both analytes are reported as N-Nitrosodiphenylamine. Pace is not NELAC certified for N-Nitrosodiphenylamine.

Phthalic acid and phthalic anhydride are reported as dimethyl phthalate

Maleic acid and maleic anhydride are reported as dimethyl malate

1,2-Diphenylhydrazine breaks down to azobenzene in the GCMS; both analytes are reported as azobenzene

Definition of Qualifiers

- QR-03** The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to suspected matrix interference and/or non-homogeneous sample matrix.
- QM-02** The spike recovery is outside acceptance limits due to insignificant spike amount as compared to sample concentration.
- J** Estimated value less than Reporting Limit (RL) but greater than Method Detection Limit(MDL) (CLP J-Flag).

Note: Unless otherwise noted, all results are reported on an as received basis.



Sample Condition Upon Receipt

Client Name: GTA Power Project # ADA0377

Courier: Fed Ex UPS USPS Client Commercial Pace Other

Tracking #: _____

Custody Seal on Cooler/Box Present: yes no Seals intact: yes no



Packing Material: Bubble Wrap Bubble Bags None Other

Thermometer Used IR-4 Type of Ice: Wet Blue None Samples on ice, cooling process has begun

Cooler Temperature 0.1 Biological Tissue Is Frozen: Yes No

Temp should be above freezing to 6°C

Comments: Date and Initials of person examining contents: 1/12/18 MK

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.	
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.	
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.	
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.	
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.	
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.	
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.	
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.	
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.	
-Pace Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.	
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.	
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.	
-Includes date/time/ID/Analysis Matrix:	<u>GTA</u>		
All containers needing preservation have been checked.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	13.	
All containers needing preservation are found to be in compliance with EPA recommendation.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Initial when completed	Lot # of added preservative
Samples checked for dechlorination:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.	
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.	
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	16.	
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A		
Pace Trip Blank Lot # (if purchased):			

Client Notification/ Resolution: _____ Date/Time: _____ Field Data Required? Y / N

Project Manager Review: _____ Date: _____

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)



PACE ANALYTICAL SERVICES, LLC.

Environmental Monitoring & Laboratory Analysis
110 Technology Parkway, Peachtree Corners, GA 30092
(770) 734-4200 FAX (770) 734-4201

LOG-IN CHECKLIST

Printed: 1/15/2018 9:43:08AM

Attn: Mr. Joju Abraham

Client: Georgia Power

Project: CCR Event

Date Received: 01/12/18 16:15

Work Order: ABA0377

Logged In By: Mohammad M. Rahman

OBSERVATIONS

#Samples: 5

#Containers: 20

Minimum Temp(C): 0.1

Maximum Temp(C): 0.1

Custody Seal(s) Used: Yes

CHECKLIST ITEMS

- COC included with Samples YES
- Sample Container(s) Intact YES
- Chain of Custody Complete YES
- Sample Container(s) Match COC YES
- Custody seal Intact YES
- Temperature in Compliance YES
- Sufficient Sample Volume for Analysis YES
- Zero Headspace Maintained for VOA Analyses YES
- Samples labeled preserved (If Applicable) YES
- Samples received within Allowable Hold Times YES
- Samples Received on Ice YES
- Preservation Confirmed YES

Comments:

February 06, 2018

Mr. Joju Abraham
Georgia Power
2480 Maner Road
Atlanta, GA 30339

RE: Project: ABA0377 Plant Yates
Pace Project No.: 30240903

Dear Mr. Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on January 16, 2018. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Jacquelyn Collins
jacquelyn.collins@pacelabs.com
(724)850-5612
Project Manager

Enclosures



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: ABA0377 Plant Yates

Pace Project No.: 30240903

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601

L-A-B DOD-ELAP Accreditation #: L2417

Alabama Certification #: 41590

Arizona Certification #: AZ0734

Arkansas Certification

California Certification #: 04222CA

Colorado Certification

Connecticut Certification #: PH-0694

Delaware Certification

Florida/TNI Certification #: E87683

Georgia Certification #: C040

Guam Certification

Hawaii Certification

Idaho Certification

Illinois Certification

Indiana Certification

Iowa Certification #: 391

Kansas/TNI Certification #: E-10358

Kentucky Certification #: 90133

Louisiana DHH/TNI Certification #: LA140008

Louisiana DEQ/TNI Certification #: 4086

Maine Certification #: PA00091

Maryland Certification #: 308

Massachusetts Certification #: M-PA1457

Michigan/PADEP Certification

Missouri Certification #: 235

Montana Certification #: Cert 0082

Nebraska Certification #: NE-05-29-14

Nevada Certification #: PA014572015-1

New Hampshire/TNI Certification #: 2976

New Jersey/TNI Certification #: PA 051

New Mexico Certification #: PA01457

New York/TNI Certification #: 10888

North Carolina Certification #: 42706

North Dakota Certification #: R-190

Oregon/TNI Certification #: PA200002

Pennsylvania/TNI Certification #: 65-00282

Puerto Rico Certification #: PA01457

Rhode Island Certification #: 65-00282

South Dakota Certification

Tennessee Certification #: TN2867

Texas/TNI Certification #: T104704188-14-8

Utah/TNI Certification #: PA014572015-5

USDA Soil Permit #: P330-14-00213

Vermont Dept. of Health: ID# VT-0282

Virgin Island/PADEP Certification

Virginia/VELAP Certification #: 460198

Washington Certification #: C868

West Virginia DEP Certification #: 143

West Virginia DHHR Certification #: 9964C

Wisconsin Certification

Wyoming Certification #: 8TMS-L

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: ABA0377 Plant Yates

Pace Project No.: 30240903

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30240903001	PZ-40	Water	01/10/18 16:10	01/16/18 11:10
30240903002	PZ-37	Water	01/11/18 11:15	01/16/18 11:10
30240903003	PZ-39	Water	01/11/18 13:10	01/16/18 11:10
30240903004	PZ-41	Water	01/11/18 14:45	01/16/18 11:10
30240903005	PZ-38	Water	01/12/18 13:50	01/16/18 11:10

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: ABA0377 Plant Yates
Pace Project No.: 30240903

Lab ID	Sample ID	Method	Analysts	Analytes Reported
30240903001	PZ-40	EPA 9315	JC2	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30240903002	PZ-37	EPA 9315	JC2	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30240903003	PZ-39	EPA 9315	JC2	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30240903004	PZ-41	EPA 9315	JC2	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1
30240903005	PZ-38	EPA 9315	JC2	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: ABA0377 Plant Yates
Pace Project No.: 30240903

Sample: PZ-40		Lab ID: 30240903001	Collected: 01/10/18 16:10	Received: 01/16/18 11:10	Matrix: Water		
PWS:		Site ID:	Sample Type:				
Parameters	Method	Act ± Unc (MDC) Carr Trac		Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.648 ± 0.256 (0.279)		pCi/L	01/22/18 08:48	13982-63-3	
		C:88% T:NA					
Radium-228	EPA 9320	0.406 ± 0.289 (0.557)		pCi/L	01/30/18 15:28	15262-20-1	
		C:82% T:94%					
Total Radium	Total Radium Calculation	1.05 ± 0.545 (0.836)		pCi/L	02/01/18 11:49	7440-14-4	

Sample: PZ-37		Lab ID: 30240903002	Collected: 01/11/18 11:15	Received: 01/16/18 11:10	Matrix: Water		
PWS:		Site ID:	Sample Type:				
Parameters	Method	Act ± Unc (MDC) Carr Trac		Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.631 ± 0.246 (0.246)		pCi/L	01/22/18 08:58	13982-63-3	
		C:88% T:NA					
Radium-228	EPA 9320	0.895 ± 0.454 (0.814)		pCi/L	01/30/18 15:28	15262-20-1	
		C:78% T:86%					
Total Radium	Total Radium Calculation	1.53 ± 0.700 (1.06)		pCi/L	02/01/18 11:49	7440-14-4	

Sample: PZ-39		Lab ID: 30240903003	Collected: 01/11/18 13:10	Received: 01/16/18 11:10	Matrix: Water		
PWS:		Site ID:	Sample Type:				
Parameters	Method	Act ± Unc (MDC) Carr Trac		Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.342 ± 0.190 (0.244)		pCi/L	01/22/18 08:58	13982-63-3	
		C:88% T:NA					
Radium-228	EPA 9320	0.499 ± 0.371 (0.721)		pCi/L	01/30/18 15:28	15262-20-1	
		C:80% T:77%					
Total Radium	Total Radium Calculation	0.841 ± 0.561 (0.965)		pCi/L	02/01/18 11:49	7440-14-4	

Sample: PZ-41		Lab ID: 30240903004	Collected: 01/11/18 14:45	Received: 01/16/18 11:10	Matrix: Water		
PWS:		Site ID:	Sample Type:				
Parameters	Method	Act ± Unc (MDC) Carr Trac		Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.687 ± 0.260 (0.288)		pCi/L	01/22/18 08:58	13982-63-3	
		C:91% T:NA					
Radium-228	EPA 9320	0.232 ± 0.349 (0.753)		pCi/L	01/30/18 15:28	15262-20-1	
		C:82% T:79%					
Total Radium	Total Radium Calculation	0.919 ± 0.609 (1.04)		pCi/L	02/01/18 11:49	7440-14-4	

Sample: PZ-38		Lab ID: 30240903005	Collected: 01/12/18 13:50	Received: 01/16/18 11:10	Matrix: Water		
PWS:		Site ID:	Sample Type:				
Parameters	Method	Act ± Unc (MDC) Carr Trac		Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.682 ± 0.288 (0.365)		pCi/L	01/22/18 08:58	13982-63-3	
		C:78% T:NA					
Radium-228	EPA 9320	0.356 ± 0.309 (0.622)		pCi/L	01/30/18 15:28	15262-20-1	
		C:83% T:85%					

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: ABA0377 Plant Yates

Pace Project No.: 30240903

Sample: PZ-38 **Lab ID: 30240903005** Collected: 01/12/18 13:50 Received: 01/16/18 11:10 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Total Radium	Total Radium Calculation	1.04 ± 0.597 (0.987)	pCi/L	02/01/18 11:49	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: ABA0377 Plant Yates
Pace Project No.: 30240903

QC Batch: 285231 Analysis Method: EPA 9320
QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228
Associated Lab Samples: 30240903001, 30240903002, 30240903003, 30240903004, 30240903005

METHOD BLANK: 1399115 Matrix: Water
Associated Lab Samples: 30240903001, 30240903002, 30240903003, 30240903004, 30240903005

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.237 ± 0.301 (0.640) C:83% T:87%	pCi/L	01/30/18 15:27	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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QUALITY CONTROL - RADIOCHEMISTRY

Project: ABA0377 Plant Yates
Pace Project No.: 30240903

QC Batch: 285233 Analysis Method: EPA 9315
QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium
Associated Lab Samples: 30240903001, 30240903002, 30240903003, 30240903004, 30240903005

METHOD BLANK: 1399117 Matrix: Water
Associated Lab Samples: 30240903001, 30240903002, 30240903003, 30240903004, 30240903005

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.375 ± 0.191 (0.230) C:89% T:NA	pCi/L	01/22/18 08:48	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: ABA0377 Plant Yates

Pace Project No.: 30240903

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval).

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

REPORT OF LABORATORY ANALYSIS

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Chain of Custody



Workorder: ABA0377

Workorder Name: Plant Yates

Owner Received Date:

Results Requested By: 2/7/2018

Subcontract To:

Pace - Pittsburgh
1638 Roseytown Road
Stes. 2,3,4
Greensburg, PA 15601
Phone (724) 850-5600

Betsy McDaniel
Pace Analytical Atlanta
110 Technology Parkway
Peachtree Corners, GA 30092
Phone (770)-734-4200

Requested Analysis

WO#: 30240903



Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers		LAB USE ONLY	
						EO	NH		
1	PZ-40	G	1/10/2018 16:10	ABA0377-01	GW	2			
2	PZ-37	G	1/11/2018 11:15	ABA0377-02	GW	2			
3	PZ-39	G	1/11/2018 13:10	ABA0377-03	GW	2			
4	PZ-41	G	1/11/2018 14:45	ABA0377-04	GW	2			
5	PZ-38	G	1/12/2018 13:50	ABA0377-05	GW	2			
6									
7									
8									
9									
10									
Transfers Released By						Received By		Date/Time	
1									
2									1/14/18 11:00
3									

Transfers Released By: [Signature] Received By: [Signature] Date/Time: 1/14/18 11:00

Cooler Temperature on Receipt: N/A °C Custody Seal Y or N: Received on Ice Y or N: Sample Intact Y or N

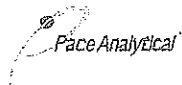
***In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC. This chain of custody is considered complete as is since this information is available in the owner laboratory.

Friday, June 17, 2016 11:01:34 AM

FMT-ALL-C-002rev.00 24March2009

Pittsburgh Lab Sample Condition Upon Receipt

30240903



Client Name: Pace Atlanta Project # _____

Courier: Fed Ex UPS USPS Client Commercial Pace Other _____

Tracking #: 741366610720

Label	<u>ZH</u>
LIMS Login	<u>PNV</u>

Custody Seal on Cooler/Box Present: yes no Seals intact: yes no

Thermometer Used N/A Type of Ice: Wet Blue None

Cooler Temperature Observed Temp _____ °C Correction Factor: _____ °C Final Temp: _____ °C

Temp should be above freezing to 6°C

Date and Initials of person examining contents: ZH 1/16/18

Comments:	Yes	No	N/A	
Chain of Custody Present:	/			1.
Chain of Custody Filled Out:	/			2.
Chain of Custody Relinquished:		/		3.
Sampler Name & Signature on COC:		/		4.
Sample Labels match COC:	/			5.
-Includes date/time/ID Matrix: <u>WT</u>				
Samples Arrived within Hold Time:	/			6.
Short Hold Time Analysis (<72hr remaining):		/		7.
Rush Turn Around Time Requested:		/		8.
Sufficient Volume:	/			9.
Correct Containers Used:	/			10.
-Pace Containers Used:	/			
Containers Intact:	/			11.
Orthophosphate field filtered			/	12.
Hex Cr Aqueous Compliance/NPDES sample field filtered			/	13.
Organic Samples checked for dechlorination:			/	14.
Filtered volume received for Dissolved tests			/	15.
All containers have been checked for preservation.	/			16. <u>PHLZ</u>
All containers needing preservation are found to be in compliance with EPA recommendation.	/			
exceptions: VOA, coliform, TOC, O&G, Phenolics				Initial when completed: <u>ZH</u> Date/time of preservation: _____
				Lot # of added preservative: _____
Headspace in VOA Vials (>6mm):			/	17.
Trip Blank Present:			/	18.
Trip Blank Custody Seals Present			/	
Rad Aqueous Samples Screened > 0.5 mrem/hr		/		Initial when completed: <u>ZH</u> Date: <u>1/16/18</u>

Client Notification/ Resolution:
 Person Contacted: _____ Date/Time: _____ Contacted By: _____
 Comments/ Resolution: _____

A check in this box indicates that additional information has been stored in ereports.

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)
 *PM review is documented electronically in LIMS. When the Project Manager closes the SRF Review schedule in LIMS. The review is in the Status section of the Workorder Edit Screen.

Quality Control Sample Performance Assessment



Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-226
Analyst: JC2
Date: 1/19/2018
Worklist: 39544
Matrix: DW

Method Blank Assessment

MB Sample ID: 1399117
MB concentration: 0.375
M/F Counting Uncertainty: 0.183
MB MDC: 0.230
MB Numerical Performance Indicator: 4.02
MB Status vs Numerical Indicator: N/A
MB Status vs. MDC: See Comment*

Laboratory Control Sample Assessment

Count Date:	LCSD (Y or N)?
1/22/2018	Y
17-030	LCSD39544
80.180	1/22/2018
0.10	17-030
0.504	80.180
16.012	0.10
1.475	0.504
14.276	16.012
13.111	1.475
0.940	14.276
-3.14	13.111
82.46%	0.940
N/A	-3.14
Pass	82.46%
	N/A
	Pass

Duplicate Sample Assessment

Sample I.D.: LCS39544
Duplicate Sample I.D.: LCS39544
Sample Result (pCi/L, g, F): 14.276
Sample Result Counting Uncertainty (pCi/L, g, F): 1.019
Sample Duplicate Result (pCi/L, g, F): 13.111
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F): 0.940
Are sample and/or duplicate results below MDC? NO
Duplicate Numerical Performance Indicator: 1.646
Duplicate RPD: 8.51%
Duplicate Status vs Numerical Indicator: N/A
Duplicate Status vs RPD: Pass

Enter Duplicate sample IDs if other than LCS/LCSD in the space below.

Sample Matrix Spike Control Assessment

Sample Collection Date:
Sample I.D.:
Sample MS I.D.:
Sample MSD I.D.:
Spike I.D.:
MS/MSD Decay Corrected Spike Concentration (pCi/mL):
Spike Volume Used in MS (mL):
Spike Volume Used in MSD (mL):
MS Aliquot (L, g, F):
MS Target Conc. (pCi/L, g, F):
MSD Aliquot (L, g, F):
MSD Target Conc. (pCi/L, g, F):
Spike uncertainty (calculated):
Sample Result:
Sample Matrix Spike Result:
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):
Sample Matrix Spike Duplicate Result:
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):
MS Numerical Performance Indicator:
MS Percent Recovery:
MSD Percent Recovery:
MS Status vs Numerical Indicator:
MSD Status vs Numerical Indicator:
MS Status vs Recovery:
MSD Status vs Recovery:

Matrix Spike/Matrix Spike Duplicate Sample Assessment

Sample I.D.:
Sample MS I.D.:
Sample MSD I.D.:
Sample Matrix Spike Result:
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):
Sample Matrix Spike Duplicate Result:
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):
Duplicate Numerical Performance Indicator:
MS/MSD Duplicate RPD:
MS/MSD Duplicate Status vs Numerical Indicator:
MS/MSD Duplicate Status vs RPD:

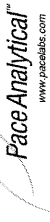
Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

*The method blank result is below the reporting limit for this analysis and is acceptable.

M/1/23/18

Quality Control Sample Performance Assessment



Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-228
Analyst: JLW
Date: 1/22/2018
Worklist: 39542
Matrix: DW

Method Blank Assessment	
MB Sample ID	1399115
MB concentration:	0.237
M/B Counting Uncertainty:	0.298
MB MDC:	0.640
MB Numerical Performance Indicator:	1.55
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment		LCSD (Y or N)?
Count Date:	1/30/2018	LCSD39542
Spike I.D.:	17-033	1/30/2018
Spike Concentration (pCi/mL):	22.458	17-033
Volume Used (mL):	0.20	22.458
Aliquot Volume (L, g, F):	0.803	0.20
Target Conc. (pCi/L, g, F):	5.592	0.804
Uncertainty (Calculated):	0.403	5.584
Result (pCi/L, g, F):	4.016	0.402
LCSD/LCSD Counting Uncertainty (pCi/L, g, F):	0.584	5.234
Numerical Performance Indicator:	-4.35	0.635
Percent Recovery:	71.83%	-0.91
Status vs Numerical Indicator:	N/A	93.73%
Status vs Recovery:	Pass	N/A
		Pass

Duplicate Sample Assessment		Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Sample I.D.:	LCS39542	
Duplicate Sample I.D.:	LCS39542	
Sample Result (pCi/L, g, F):	4.016	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.584	
Sample Duplicate Result (pCi/L, g, F):	5.234	
Sample Duplicate Counting Uncertainty (pCi/L, g, F):	0.635	
Are sample and/or duplicate results below MDC?	NO	
Duplicate Numerical Performance Indicator:	-2.768	
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	26.46%	
Duplicate Status vs Numerical Indicator:	N/A	
Duplicate Status vs RPD:	Pass	

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

Handwritten notes:
DW
1/22/18
JLW

Sample Matrix Spike Control Assessment	
Sample Collection Date:	
Sample I.D.:	
Sample MS I.D.:	
Sample MSD I.D.:	
Spike I.D.:	
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	
Spike Volume Used in MS (mL):	
MS Aliquot (L, g, F):	
MSD Aliquot (L, g, F):	
MS Target Conc. (pCi/L, g, F):	
MSD Target Conc. (pCi/L, g, F):	
Spike uncertainty (calculated):	
Sample Result:	
Sample Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Result:	
Sample Matrix Spike Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Sample Matrix Spike Duplicate Counting Uncertainty (pCi/L, g, F):	
MS Numerical Performance Indicator:	
MSD Numerical Performance Indicator:	
MS Percent Recovery:	
MSD Percent Recovery:	
MS Status vs Numerical Indicator:	
MSD Status vs Numerical Indicator:	
MS Status vs Recovery:	
MSD Status vs Recovery:	

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.:	
Sample MS I.D.:	
Sample MSD I.D.:	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Sample Matrix Spike Duplicate Counting Uncertainty (pCi/L, g, F):	
Duplicate Numerical Performance Indicator:	
(Based on the Percent Recoveries) MS/MSD Duplicate RPD:	
MS/MSD Duplicate Status vs Numerical Indicator:	
MS/MSD Duplicate Status vs RPD:	

Product Name: Low-Flow System

Date: 2018-02-20 12:20:53

Project Information:

Operator Name Ryan Walker
Company Name Atlantic Coast Consulting
Project Name Plant Yates- Phase 2
Site Name Plant Yates-Phase 2-CCR
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 466058
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type Peristaltic Pump
Tubing Type poly
Tubing Diameter .17 in
Tubing Length 51 ft

Pump placement from TOC 41.9 ft

Well Information:

Well ID PZ-37
Well diameter 2 in
Well Total Depth 46.90 ft
Screen Length 10 ft
Depth to Water 11.27 ft

Pumping Information:

Final Pumping Rate 190 mL/min
Total System Volume 0.3176346 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 3.96 in
Total Volume Pumped 15.2 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%	+/- 0		+/- 10%	+/- 10
Last 5	11:59:03	3600.96	18.19	6.10	1179.40	2.71	11.60	0.25	53.22
Last 5	12:04:03	3900.96	18.18	6.00	1194.85	2.60	11.60	0.32	54.55
Last 5	12:09:03	4200.94	18.26	5.91	1206.01	2.62	11.60	0.40	55.68
Last 5	12:14:03	4500.94	18.21	5.88	1212.82	2.52	11.60	0.40	57.25
Last 5	12:19:03	4800.94	18.26	5.90	1220.16	2.57	11.60	0.37	57.92
Variance 0			0.08	-0.09	11.16			0.09	1.13
Variance 1			-0.05	-0.03	6.81			-0.01	1.57
Variance 2			0.04	0.02	7.34			-0.02	0.67

Notes

Sampled at 12:20. Cloudy, 70's.

Grab Samples

Product Name: Low-Flow System

Date: 2018-02-20 15:33:03

Project Information:

Operator Name Ryan Walker
Company Name Atlantic Coast Consulting
Project Name Plant Yates- Phase 2
Site Name Plant Yates-Phase 2-CCR
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 466058
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type Peristaltic Pump
Tubing Type poly
Tubing Diameter .17 in
Tubing Length 55 ft

Pump placement from TOC 45.3 ft

Well Information:

Well ID PZ-38
Well diameter 2 in
Well Total Depth 50.29 ft
Screen Length 10 ft
Depth to Water 32.15 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.3354883 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 7.8 in
Total Volume Pumped 5.5 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%	+/- 0		+/- 10%	+/- 10
Last 5	15:07:49	1500.00	19.15	5.11	1510.83	6.31	32.80	1.32	81.24
Last 5	15:12:49	1799.99	19.11	5.11	1512.21	6.11	32.80	1.38	82.40
Last 5	15:17:49	2099.99	19.06	5.10	1511.67	5.57	32.80	1.44	83.25
Last 5	15:22:49	2399.98	18.97	5.10	1511.75	4.77	32.80	1.52	84.15
Last 5	15:27:49	2699.98	18.98	5.10	1512.25	4.93	32.80	1.58	85.16
Variance 0			-0.05	-0.01	-0.55			0.06	0.85
Variance 1			-0.09	0.00	0.08			0.08	0.90
Variance 2			0.01	-0.01	0.50			0.06	1.01

Notes

Sampled at 15:30. Cloudy, 70's.

Grab Samples

Product Name: Low-Flow System

Date: 2018-02-20 10:16:43

Project Information:

Operator Name Ryan Walker
Company Name Atlantic Coast Consulting
Project Name Plant Yates- Phase 2
Site Name Plant Yates-Phase 2-CCR
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 466058
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type Peristaltic Pump
Tubing Type poly
Tubing Diameter .17 in
Tubing Length 73 ft

Pump placement from TOC 63.5 ft

Well Information:

Well ID PZ-39
Well diameter 2 in
Well Total Depth 68.50 ft
Screen Length 10 ft
Depth to Water 25.15 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.4158299 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 5.4 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			+/- 10	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 10
Last 5	09:55:16	600.01	17.86	7.31	89.48	3.47	25.50	1.06	96.48
Last 5	10:00:16	900.01	17.81	7.29	88.68	3.23	25.50	0.99	95.73
Last 5	10:05:16	1200.00	17.77	7.24	88.45	3.17	25.60	0.97	96.30
Last 5	10:10:16	1499.99	17.77	7.22	88.02	3.01	25.60	0.98	95.04
Last 5	10:15:16	1799.99	17.77	7.22	87.65	3.33	25.60	0.98	94.48
Variance 0			-0.04	-0.06	-0.23			-0.02	0.57
Variance 1			-0.01	-0.02	-0.42			0.00	-1.26
Variance 2			0.00	-0.00	-0.37			0.00	-0.56

Notes

Sampled at 10:15. Cloudy, 60's.

Grab Samples

Product Name: Low-Flow System

Date: 2018-02-19 15:25:38

Project Information:

Operator Name Ryan Walker
Company Name Atlantic Coast Consulting
Project Name Plant Yates- Phase 2
Site Name Plant Yates-Phase 2-CCR
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 466058
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type Peristaltic Pump
Tubing Type poly
Tubing Diameter .17 in
Tubing Length 53 ft

Pump placement from TOC 43.3 ft

Well Information:

Well ID PZ-40
Well diameter 2 in
Well Total Depth 48.35 ft
Screen Length 10 ft
Depth to Water 26.50 ft

Pumping Information:

Final Pumping Rate 125 mL/min
Total System Volume 0.3265614 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 9.6 in
Total Volume Pumped 3.75 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%	+/- 0		+/- 10%	+/- 10
Last 5	15:03:32	600.02	19.33	5.79	135.07	2.81	27.30	4.75	126.75
Last 5	15:08:32	900.01	19.70	5.71	157.20	1.78	27.30	5.19	130.49
Last 5	15:13:32	1200.01	19.95	5.66	165.76	2.82	27.30	5.41	132.21
Last 5	15:18:32	1500.01	19.72	5.62	167.26	3.46	27.30	5.52	134.20
Last 5	15:23:32	1800.00	19.82	5.60	168.74	2.25	27.30	5.55	135.67
Variance 0			0.25	-0.04	8.56			0.22	1.72
Variance 1			-0.23	-0.04	1.50			0.11	1.99
Variance 2			0.10	-0.02	1.48			0.03	1.48

Notes

Sampled at 15:25. Sunny, 70's.

Grab Samples

Product Name: Low-Flow System

Date: 2018-02-19 14:01:54

Project Information:

Operator Name Ryan Walker
Company Name Atlantic Coast Consulting
Project Name Plant Yates- Phase 2
Site Name Plant Yates-Phase 2-CCR
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 466058
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type Peristaltic Pump
Tubing Type poly
Tubing Diameter .17 in
Tubing Length 73 ft

Pump placement from TOC 62.9 ft

Well Information:

Well ID PZ-41
Well diameter 2 in
Well Total Depth 67.92 ft
Screen Length 10 ft
Depth to Water 28.98 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.4158299 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 9.84 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			+/- 10	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 10
Last 5	13:39:49	1800.00	19.33	4.99	793.31	2.73	29.80	0.81	127.29
Last 5	13:44:49	2099.99	19.17	4.99	797.96	3.08	29.80	0.98	127.95
Last 5	13:49:49	2399.99	19.21	4.99	796.98	2.59	29.80	1.06	128.79
Last 5	13:54:49	2699.98	19.10	4.99	802.67	2.91	29.80	1.11	129.73
Last 5	13:59:49	2999.98	19.19	4.96	804.65	2.45	29.80	1.17	130.90
Variance 0			0.04	-0.00	-0.98			0.08	0.84
Variance 1			-0.11	-0.00	5.68			0.05	0.94
Variance 2			0.08	-0.03	1.98			0.06	1.17

Notes

Sampled at 1400. Sunny 70's.

Grab Samples

August 15, 2018

Joju Abraham
Georgia Power - Coal Combustion Residuals
2480 Maner Road
Atlanta, GA 30339

RE: Project: Plant Yates Phase II
Pace Project No.: 262138

Dear Joju Abraham:

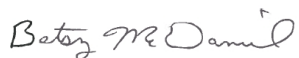
Enclosed are the analytical results for sample(s) received by the laboratory on February 22, 2018. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

REV03292018_report revised to add Ca data.

REV08152018_report revised to change metals units to mg/L per consultant.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Betsy McDaniel
betsy.mcdaniel@pacelabs.com
(770)734-4200
Project Manager

Enclosures

cc: Maria Padilla, Georgia Power
Chris Parker, Atlantic Coast Consulting
Evan Perry, Atlantic Coast Consulting
Lauren Petty, Southern Company Services, Inc.
Rebecca Thornton, Pace Analytical Atlanta



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: Plant Yates Phase II

Pace Project No.: 262138

Atlanta Certification IDs

110 Technology Parkway Peachtree Corners, GA 30092

Florida DOH Certification #: E87315

Georgia DW Inorganics Certification #: 812

Georgia DW Microbiology Certification #: 812

North Carolina Certification #: 381

South Carolina Certification #: 98011001

Texas Certification #: T104704397-08-TX

Virginia Certification #: 460204

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601

ANAB DOD-ELAP Rad Accreditation #: L2417

Alabama Certification #: 41590

Arizona Certification #: AZ0734

Arkansas Certification

California Certification #: 04222CA

Colorado Certification #: PA01547

Connecticut Certification #: PH-0694

Delaware Certification

EPA Region 4 DW Rad

Florida/TNI Certification #: E87683

Georgia Certification #: C040

Guam Certification

Hawaii Certification

Idaho Certification

Illinois Certification

Indiana Certification

Iowa Certification #: 391

Kansas/TNI Certification #: E-10358

Kentucky Certification #: KY90133

KY WW Permit #: KY0098221

KY WW Permit #: KY0000221

Louisiana DHH/TNI Certification #: LA180012

Louisiana DEQ/TNI Certification #: 4086

Maine Certification #: 2017020

Maryland Certification #: 308

Massachusetts Certification #: M-PA1457

Michigan/PADEP Certification #: 9991

Missouri Certification #: 235

Montana Certification #: Cert0082

Nebraska Certification #: NE-OS-29-14

Nevada Certification #: PA014572018-1

New Hampshire/TNI Certification #: 297617

New Jersey/TNI Certification #: PA051

New Mexico Certification #: PA01457

New York/TNI Certification #: 10888

North Carolina Certification #: 42706

North Dakota Certification #: R-190

Ohio EPA Rad Approval: #41249

Oregon/TNI Certification #: PA200002-010

Pennsylvania/TNI Certification #: 65-00282

Puerto Rico Certification #: PA01457

Rhode Island Certification #: 65-00282

South Dakota Certification

Tennessee Certification #: 02867

Texas/TNI Certification #: T104704188-17-3

Utah/TNI Certification #: PA014572017-9

USDA Soil Permit #: P330-17-00091

Vermont Dept. of Health: ID# VT-0282

Virgin Island/PADEP Certification

Virginia/VELAP Certification #: 9526

Washington Certification #: C868

West Virginia DEP Certification #: 143

West Virginia DHHR Certification #: 9964C

Wisconsin Approve List for Rad

Wyoming Certification #: 8TMS-L

Asheville Certification IDs

2225 Riverside Drive, Asheville, NC 28804

Florida/NELAP Certification #: E87648

Massachusetts Certification #: M-NC030

North Carolina Drinking Water Certification #: 37712

North Carolina Wastewater Certification #: 40

South Carolina Certification #: 99030001

Virginia/VELAP Certification #: 460222

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SAMPLE SUMMARY

Project: Plant Yates Phase II

Pace Project No.: 262138

Lab ID	Sample ID	Matrix	Date Collected	Date Received
262138001	PZ-38	Water	02/20/18 15:30	02/22/18 10:00
262138002	PZ-38	Water	02/20/18 15:30	02/22/18 10:00

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SAMPLE ANALYTE COUNT

Project: Plant Yates Phase II

Pace Project No.: 262138

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
262138001	PZ-38	EPA 6020B	CSW	14	PASI-GA
		EPA 7470A	MTC	1	PASI-GA
		SM 2540C	NAL	1	PASI-A
		EPA 300.0	RLC	3	PASI-GA
262138002	PZ-38	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA

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ANALYTICAL RESULTS

Project: Plant Yates Phase II

Pace Project No.: 262138

Sample: PZ-38		Lab ID: 262138001		Collected: 02/20/18 15:30		Received: 02/22/18 10:00		Matrix: Water	
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Antimony	ND	mg/L	0.0030	0.00078	1	02/27/18 10:07	02/28/18 18:37	7440-36-0	
Arsenic	0.00096J	mg/L	0.0050	0.00057	1	02/27/18 10:07	02/28/18 18:37	7440-38-2	
Barium	0.026	mg/L	0.010	0.00078	1	02/27/18 10:07	02/28/18 18:37	7440-39-3	
Beryllium	0.0053	mg/L	0.0030	0.000050	1	02/27/18 10:07	02/28/18 18:37	7440-41-7	
Boron	18.6	mg/L	2.0	0.20	50	02/27/18 10:07	03/05/18 14:03	7440-42-8	M6
Cadmium	0.0029	mg/L	0.0010	0.000093	1	02/27/18 10:07	02/28/18 18:37	7440-43-9	
Calcium	184	mg/L	25.0	0.69	50	02/27/18 10:07	02/28/18 18:48	7440-70-2	M6
Chromium	ND	mg/L	0.010	0.0016	1	02/27/18 10:07	02/28/18 18:37	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	02/27/18 10:07	02/28/18 18:37	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	02/27/18 10:07	02/28/18 18:37	7439-92-1	
Lithium	0.0082J	mg/L	0.050	0.00097	1	02/27/18 10:07	02/28/18 18:37	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	02/27/18 10:07	02/28/18 18:37	7439-98-7	
Selenium	0.25	mg/L	0.010	0.0014	1	02/27/18 10:07	02/28/18 18:37	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	02/27/18 10:07	02/28/18 18:37	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00050	0.000036	1	02/27/18 15:50	02/28/18 16:32	7439-97-6	
2540C Total Dissolved Solids		Analytical Method: SM 2540C							
Total Dissolved Solids	1300	mg/L	50.0	50.0	1		02/27/18 11:57		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Chloride	6.2	mg/L	0.25	0.024	1		02/28/18 20:49	16887-00-6	
Fluoride	ND	mg/L	0.30	0.029	1		02/28/18 20:49	16984-48-8	M1
Sulfate	905	mg/L	50.0	0.85	50		03/06/18 03:57	14808-79-8	

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QUALITY CONTROL DATA

Project: Plant Yates Phase II
Pace Project No.: 262138

QC Batch: 1654 Analysis Method: EPA 7470A
QC Batch Method: EPA 7470A Analysis Description: 7470 Mercury
Associated Lab Samples: 262138001

METHOD BLANK: 9608 Matrix: Water
Associated Lab Samples: 262138001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00050	0.000036	02/28/18 15:54	

LABORATORY CONTROL SAMPLE: 9609

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	.0025	0.0029	116	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 9840 9841

Parameter	Units	262140001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	mg/L	ND	.0025	.0025	0.0028	0.0027	110	108	75-125	2	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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QUALITY CONTROL DATA

Project: Plant Yates Phase II
Pace Project No.: 262138

QC Batch: 1651 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020B MET
Associated Lab Samples: 262138001

METHOD BLANK: 9601 Matrix: Water
Associated Lab Samples: 262138001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00078	02/28/18 18:25	
Arsenic	mg/L	ND	0.0050	0.00057	02/28/18 18:25	
Barium	mg/L	ND	0.010	0.00078	02/28/18 18:25	
Beryllium	mg/L	ND	0.0030	0.000050	02/28/18 18:25	
Boron	mg/L	ND	0.040	0.0039	02/28/18 18:25	
Cadmium	mg/L	ND	0.0010	0.000093	02/28/18 18:25	
Calcium	mg/L	ND	0.50	0.014	02/28/18 18:25	
Chromium	mg/L	ND	0.010	0.0016	02/28/18 18:25	
Cobalt	mg/L	ND	0.010	0.00052	02/28/18 18:25	
Lead	mg/L	ND	0.0050	0.00027	02/28/18 18:25	
Lithium	mg/L	ND	0.050	0.00097	02/28/18 18:25	
Molybdenum	mg/L	ND	0.010	0.0019	02/28/18 18:25	
Selenium	mg/L	ND	0.010	0.0014	02/28/18 18:25	
Thallium	mg/L	ND	0.0010	0.00014	02/28/18 18:25	

LABORATORY CONTROL SAMPLE: 9602

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	.1	0.10	103	80-120	
Arsenic	mg/L	.1	0.10	100	80-120	
Barium	mg/L	.1	0.10	100	80-120	
Beryllium	mg/L	.1	0.11	107	80-120	
Boron	mg/L	1	1.0	105	80-120	
Cadmium	mg/L	.1	0.10	102	80-120	
Calcium	mg/L	1	1.0	101	80-120	
Chromium	mg/L	.1	0.10	103	80-120	
Cobalt	mg/L	.1	0.10	102	80-120	
Lead	mg/L	.1	0.10	102	80-120	
Lithium	mg/L	.1	0.11	107	80-120	
Molybdenum	mg/L	.1	0.11	106	80-120	
Selenium	mg/L	.1	0.10	102	80-120	
Thallium	mg/L	.1	0.10	103	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 9687 9688

Parameter	Units	262138001 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	MS Result	MSD Result	MSD Result						
Antimony	mg/L	ND	.1	0.11	0.11	0.11	112	113	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Yates Phase II

Pace Project No.: 262138

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 9687			9688									
Parameter	Units	262138001 Result	MS	MSD	MS	MSD	MS	MSD	% Rec	Max		
			Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
Arsenic	mg/L	0.00096J	.1	.1	0.11	0.11	110	111	75-125	1	20	
Barium	mg/L	0.026	.1	.1	0.13	0.13	107	109	75-125	1	20	
Beryllium	mg/L	0.0053	.1	.1	0.091	0.089	86	84	75-125	2	20	
Boron	mg/L	18.6	1	1	19.3	19.6	69	103	75-125	2	20	M6
Cadmium	mg/L	0.0029	.1	.1	0.10	0.11	102	105	75-125	3	20	
Calcium	mg/L	184	1	1	187	188	331	354	75-125	0	20	M6
Chromium	mg/L	ND	.1	.1	0.11	0.11	108	110	75-125	2	20	
Cobalt	mg/L	ND	.1	.1	0.10	0.11	104	106	75-125	2	20	
Lead	mg/L	ND	.1	.1	0.096	0.097	96	97	75-125	1	20	
Lithium	mg/L	0.0082J	.1	.1	0.093	0.093	85	85	75-125	0	20	
Molybdenum	mg/L	ND	.1	.1	0.11	0.11	115	114	75-125	0	20	
Selenium	mg/L	0.25	.1	.1	0.38	0.38	124	125	75-125	0	20	
Thallium	mg/L	ND	.1	.1	0.097	0.098	97	98	75-125	0	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Yates Phase II
Pace Project No.: 262138

QC Batch: 399830 Analysis Method: SM 2540C
QC Batch Method: SM 2540C Analysis Description: 2540C Total Dissolved Solids
Associated Lab Samples: 262138001

METHOD BLANK: 2217434 Matrix: Water
Associated Lab Samples: 262138001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	25.0	25.0	02/27/18 11:57	

LABORATORY CONTROL SAMPLE: 2217435

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	250	246	98	90-110	

SAMPLE DUPLICATE: 2217436

Parameter	Units	92374543023 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1600	1740	9	5	D6

SAMPLE DUPLICATE: 2217437

Parameter	Units	92374543024 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	124	120	3	5	

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QUALITY CONTROL DATA

Project: Plant Yates Phase II
Pace Project No.: 262138

QC Batch: 1766 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 262138001

METHOD BLANK: 10018 Matrix: Water
Associated Lab Samples: 262138001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	0.26J	0.25	0.024	02/28/18 19:27	
Fluoride	mg/L	ND	0.30	0.029	02/28/18 19:27	
Sulfate	mg/L	ND	1.0	0.017	02/28/18 19:27	

LABORATORY CONTROL SAMPLE: 10019

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	10	10.3	103	90-110	
Fluoride	mg/L	10	10.1	101	90-110	
Sulfate	mg/L	10	9.9	99	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 10020 10021

Parameter	Units	262138001		10021		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Chloride	mg/L	6.2	10	10	16.0	15.9	97	96	90-110	1	15
Fluoride	mg/L	ND	10	10	12.1	12.0	121	120	90-110	1	15 M1
Sulfate	mg/L	905	10	10	376	376	-5280	-5290	90-110	0	15 E

MATRIX SPIKE SAMPLE: 10022

Parameter	Units	262140001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	6.7	10	16.1	94	90-110	
Fluoride	mg/L	ND	10	10.4	104	90-110	
Sulfate	mg/L	46.7	10	51.5	48	90-110 E	

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REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Phase II

Pace Project No.: 262138

Sample: PZ-38 **Lab ID: 262138002** Collected: 02/20/18 15:30 Received: 02/22/18 10:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	1.11 ± 0.347 (0.344) C:84% T:NA	pCi/L	03/01/18 18:26	13982-63-3	
Radium-228	EPA 9320	0.491 ± 0.336 (0.640) C:82% T:81%	pCi/L	03/12/18 13:29	15262-20-1	
Total Radium	Total Radium Calculation	1.60 ± 0.683 (0.984)	pCi/L	03/13/18 13:15	7440-14-4	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Yates Phase II

Pace Project No.: 262138

QC Batch: 289706

Analysis Method: EPA 9315

QC Batch Method: EPA 9315

Analysis Description: 9315 Total Radium

Associated Lab Samples: 262138002

METHOD BLANK: 1419136

Matrix: Water

Associated Lab Samples: 262138002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.281 ± 0.133 (0.187) C:85% T:NA	pCi/L	03/01/18 19:19	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Yates Phase II

Pace Project No.: 262138

QC Batch: 290137

Analysis Method: EPA 9320

QC Batch Method: EPA 9320

Analysis Description: 9320 Radium 228

Associated Lab Samples: 262138002

METHOD BLANK: 1420943

Matrix: Water

Associated Lab Samples: 262138002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.628 ± 0.313 (0.532) C:81% T:89%	pCi/L	03/12/18 13:29	

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REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: Plant Yates Phase II
Pace Project No.: 262138

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval).

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-A Pace Analytical Services - Asheville

PASI-GA Pace Analytical Services - Atlanta, GA

PASI-PA Pace Analytical Services - Greensburg

ANALYTE QUALIFIERS

D6 The precision between the sample and sample duplicate exceeded laboratory control limits.

E Analyte concentration exceeded the calibration range. The reported result is estimated.

M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

M6 Matrix spike and Matrix spike duplicate recovery not evaluated against control limits due to sample dilution.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Yates Phase II
Pace Project No.: 262138

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
262138001	PZ-38	EPA 3005A	1651	EPA 6020B	1802
262138001	PZ-38	EPA 7470A	1654	EPA 7470A	1775
262138002	PZ-38	EPA 9315	289706		
262138002	PZ-38	EPA 9320	290137		
262138002	PZ-38	Total Radium Calculation	291087		
262138001	PZ-38	SM 2540C	399830		
262138001	PZ-38	EPA 300.0	1766		

REPORT OF LABORATORY ANALYSIS

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Sample Condition Upon Receipt



Client Name: GA Power

Project # _____

WO#: 262138

PN: BM

Due Date: 03/01/18

CLIENT: GAPower-CCR

Courier: Fed Ex UPS USPS Client Commercial Pace Other _____

Tracking #: _____

Custody Seal on Cooler/Box Present: yes no Seals intact: yes no

Packing Material: Bubble Wrap Bubble Bags None Other _____

Thermometer Used B3

Type of Ice: Wet Blue None _____

Samples on ice, cooling process has begun

Cooler Temperature 1.6

Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: 2/22/18 MK

Temp should be above freezing to 6°C

Comments: _____

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.	
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.	
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.	
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.	
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.	
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.	
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.	
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.	
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.	
-Pace Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.	
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.	
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.	
-Includes date/time/ID/Analysis Matrix: <u>GLW</u>			
All containers needing preservation have been checked.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	13.	
All containers needing preservation are found to be in compliance with EPA recommendation.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Initial when completed	Lot # of added preservative
Samples checked for dechlorination:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.	
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.	
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	16.	
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A		
Pace Trip Blank Lot # (if purchased):			

Client Notification/ Resolution:

Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____

Date: _____

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

August 15, 2018

Joju Abraham
Georgia Power - Coal Combustion Residuals
2480 Maner Road
Atlanta, GA 30339

RE: Project: Plant Yates Phase II
Pace Project No.: 262050

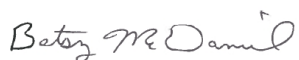
Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on February 20, 2018. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

REV08152018_report revised to change metals units to mg/L per consultant.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Betsy McDaniel
betsy.mcdaniel@pacelabs.com
(770)734-4200
Project Manager

Enclosures

cc: Maria Padilla, Georgia Power
Chris Parker, Atlantic Coast Consulting
Evan Perry, Atlantic Coast Consulting
Lauren Petty, Southern Company Services, Inc.
Rebecca Thornton, Pace Analytical Atlanta



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: Plant Yates Phase II
Pace Project No.: 262050

Atlanta Certification IDs

110 Technology Parkway Peachtree Corners, GA 30092	North Carolina Certification #: 381
Florida DOH Certification #: E87315	South Carolina Certification #: 98011001
Georgia DW Inorganics Certification #: 812	Texas Certification #: T104704397-08-TX
Georgia DW Microbiology Certification #: 812	Virginia Certification #: 460204

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601	Missouri Certification #: 235
ANAB DOD-ELAP Rad Accreditation #: L2417	Montana Certification #: Cert0082
Alabama Certification #: 41590	Nebraska Certification #: NE-OS-29-14
Arizona Certification #: AZ0734	Nevada Certification #: PA014572018-1
Arkansas Certification	New Hampshire/TNI Certification #: 297617
California Certification #: 04222CA	New Jersey/TNI Certification #: PA051
Colorado Certification #: PA01547	New Mexico Certification #: PA01457
Connecticut Certification #: PH-0694	New York/TNI Certification #: 10888
Delaware Certification	North Carolina Certification #: 42706
EPA Region 4 DW Rad	North Dakota Certification #: R-190
Florida/TNI Certification #: E87683	Ohio EPA Rad Approval: #41249
Georgia Certification #: C040	Oregon/TNI Certification #: PA200002-010
Guam Certification	Pennsylvania/TNI Certification #: 65-00282
Hawaii Certification	Puerto Rico Certification #: PA01457
Idaho Certification	Rhode Island Certification #: 65-00282
Illinois Certification	South Dakota Certification
Indiana Certification	Tennessee Certification #: 02867
Iowa Certification #: 391	Texas/TNI Certification #: T104704188-17-3
Kansas/TNI Certification #: E-10358	Utah/TNI Certification #: PA014572017-9
Kentucky Certification #: KY90133	USDA Soil Permit #: P330-17-00091
KY WW Permit #: KY0098221	Vermont Dept. of Health: ID# VT-0282
KY WW Permit #: KY0000221	Virgin Island/PADEP Certification
Louisiana DHH/TNI Certification #: LA180012	Virginia/VELAP Certification #: 9526
Louisiana DEQ/TNI Certification #: 4086	Washington Certification #: C868
Maine Certification #: 2017020	West Virginia DEP Certification #: 143
Maryland Certification #: 308	West Virginia DHHR Certification #: 9964C
Massachusetts Certification #: M-PA1457	Wisconsin Approve List for Rad
Michigan/PADEP Certification #: 9991	Wyoming Certification #: 8TMS-L

Asheville Certification IDs

2225 Riverside Drive, Asheville, NC 28804	North Carolina Wastewater Certification #: 40
Florida/NELAP Certification #: E87648	South Carolina Certification #: 99030001
Massachusetts Certification #: M-NC030	Virginia/VELAP Certification #: 460222
North Carolina Drinking Water Certification #: 37712	

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SAMPLE SUMMARY

Project: Plant Yates Phase II

Pace Project No.: 262050

Lab ID	Sample ID	Matrix	Date Collected	Date Received
262050001	PZ-41	Water	02/19/18 14:00	02/20/18 16:50
262050002	PZ-41	Water	02/19/18 14:00	02/20/18 16:50
262050003	PZ-40	Water	02/19/18 15:25	02/20/18 16:50
262050004	PZ-40	Water	02/19/18 15:25	02/20/18 16:50
262050005	PZ-39	Water	02/20/18 10:15	02/20/18 16:50
262050006	PZ-39	Water	02/20/18 10:15	02/20/18 16:50
262050007	PZ-37	Water	02/20/18 12:20	02/20/18 16:50
262050008	PZ-37	Water	02/20/18 12:20	02/20/18 16:50

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SAMPLE ANALYTE COUNT

Project: Plant Yates Phase II
Pace Project No.: 262050

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
262050001	PZ-41	EPA 6020B	CSW	14	PASI-GA
		EPA 7470A	MTC	1	PASI-GA
		SM 2540C	MJP	1	PASI-A
		EPA 300.0	RLC	3	PASI-GA
262050002	PZ-41	EPA 9315	JC2	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
262050003	PZ-40	EPA 6020B	CSW	14	PASI-GA
		EPA 7470A	MTC	1	PASI-GA
		SM 2540C	MJP	1	PASI-A
		EPA 300.0	RLC	3	PASI-GA
262050004	PZ-40	EPA 9315	JC2	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
262050005	PZ-39	EPA 6020B	CSW	14	PASI-GA
		EPA 7470A	MTC	1	PASI-GA
		SM 2540C	NAL	1	PASI-A
		EPA 300.0	RLC	3	PASI-GA
262050006	PZ-39	EPA 9315	JC2	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
262050007	PZ-37	EPA 6020B	CSW	14	PASI-GA
		EPA 7470A	MTC	1	PASI-GA
		SM 2540C	NAL	1	PASI-A
		EPA 300.0	RLC	3	PASI-GA
262050008	PZ-37	EPA 9315	JC2	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA

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ANALYTICAL RESULTS

Project: Plant Yates Phase II

Pace Project No.: 262050

Sample: PZ-41		Lab ID: 262050001		Collected: 02/19/18 14:00		Received: 02/20/18 16:50		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00078	1	02/27/18 10:06	02/28/18 17:27	7440-36-0		
Arsenic	ND	mg/L	0.0050	0.00057	1	02/27/18 10:06	02/28/18 17:27	7440-38-2		
Barium	0.031	mg/L	0.010	0.00078	1	02/27/18 10:06	02/28/18 17:27	7440-39-3		
Beryllium	0.0039	mg/L	0.0030	0.000050	1	02/27/18 10:06	02/28/18 17:27	7440-41-7		
Boron	15.2	mg/L	2.0	0.20	50	02/27/18 10:06	02/28/18 17:33	7440-42-8		
Cadmium	ND	mg/L	0.0010	0.000093	1	02/27/18 10:06	02/28/18 17:27	7440-43-9		
Calcium	45.3	mg/L	25.0	0.69	50	02/27/18 10:06	02/28/18 17:33	7440-70-2		
Chromium	ND	mg/L	0.010	0.0016	1	02/27/18 10:06	02/28/18 17:27	7440-47-3		
Cobalt	ND	mg/L	0.010	0.00052	1	02/27/18 10:06	02/28/18 17:27	7440-48-4		
Lead	ND	mg/L	0.0050	0.00027	1	02/27/18 10:06	02/28/18 17:27	7439-92-1		
Lithium	ND	mg/L	0.050	0.00097	1	02/27/18 10:06	02/28/18 17:27	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.0019	1	02/27/18 10:06	02/28/18 17:27	7439-98-7		
Selenium	0.071	mg/L	0.010	0.0014	1	02/27/18 10:06	02/28/18 17:27	7782-49-2		
Thallium	ND	mg/L	0.0010	0.00014	1	02/27/18 10:06	02/28/18 17:27	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.000036	1	02/27/18 15:30	02/28/18 17:20	7439-97-6		
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	630	mg/L	50.0	50.0	1		02/25/18 10:20			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Chloride	3.5	mg/L	0.25	0.024	1		02/22/18 22:43	16887-00-6		
Fluoride	ND	mg/L	0.30	0.029	1		02/22/18 22:43	16984-48-8		
Sulfate	414	mg/L	20.0	0.34	20		03/02/18 17:50	14808-79-8		

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ANALYTICAL RESULTS

Project: Plant Yates Phase II

Pace Project No.: 262050

Sample: PZ-40		Lab ID: 262050003		Collected: 02/19/18 15:25		Received: 02/20/18 16:50		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00078	1	02/27/18 10:06	02/28/18 18:31	7440-36-0		
Arsenic	ND	mg/L	0.0050	0.00057	1	02/27/18 10:06	02/28/18 18:31	7440-38-2		
Barium	0.060	mg/L	0.010	0.00078	1	02/27/18 10:06	02/28/18 18:31	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000050	1	02/27/18 10:06	02/28/18 18:31	7440-41-7		
Boron	0.15	mg/L	0.040	0.0039	1	02/27/18 10:06	02/28/18 18:31	7440-42-8		
Cadmium	ND	mg/L	0.0010	0.000093	1	02/27/18 10:06	02/28/18 18:31	7440-43-9		
Calcium	ND	mg/L	25.0	0.69	50	02/27/18 10:06	02/28/18 18:37	7440-70-2		
Chromium	ND	mg/L	0.010	0.0016	1	02/27/18 10:06	02/28/18 18:31	7440-47-3		
Cobalt	ND	mg/L	0.010	0.00052	1	02/27/18 10:06	02/28/18 18:31	7440-48-4		
Lead	ND	mg/L	0.0050	0.00027	1	02/27/18 10:06	02/28/18 18:31	7439-92-1		
Lithium	ND	mg/L	0.050	0.00097	1	02/27/18 10:06	02/28/18 18:31	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.0019	1	02/27/18 10:06	02/28/18 18:31	7439-98-7		
Selenium	ND	mg/L	0.010	0.0014	1	02/27/18 10:06	02/28/18 18:31	7782-49-2		
Thallium	ND	mg/L	0.0010	0.00014	1	02/27/18 10:06	02/28/18 18:31	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.000036	1	02/27/18 15:30	02/28/18 17:22	7439-97-6		
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	119	mg/L	25.0	25.0	1		02/25/18 10:20			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Chloride	4.6	mg/L	0.25	0.024	1		02/22/18 23:04	16887-00-6		
Fluoride	ND	mg/L	0.30	0.029	1		02/22/18 23:04	16984-48-8		
Sulfate	57.2	mg/L	10.0	0.17	10		03/02/18 18:11	14808-79-8		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Yates Phase II

Pace Project No.: 262050

Sample: PZ-39		Lab ID: 262050005		Collected: 02/20/18 10:15		Received: 02/20/18 16:50		Matrix: Water	
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Antimony	ND	mg/L	0.0030	0.00078	1	02/27/18 10:06	02/28/18 18:43	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	02/27/18 10:06	02/28/18 18:43	7440-38-2	
Barium	ND	mg/L	0.010	0.00078	1	02/27/18 10:06	02/28/18 18:43	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	02/27/18 10:06	02/28/18 18:43	7440-41-7	
Boron	ND	mg/L	0.040	0.0039	1	02/27/18 10:06	02/28/18 18:43	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000093	1	02/27/18 10:06	02/28/18 18:43	7440-43-9	
Calcium	1.7	mg/L	0.50	0.014	1	02/27/18 10:06	02/28/18 18:43	7440-70-2	
Chromium	ND	mg/L	0.010	0.0016	1	02/27/18 10:06	02/28/18 18:43	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	02/27/18 10:06	02/28/18 18:43	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	02/27/18 10:06	02/28/18 18:43	7439-92-1	
Lithium	ND	mg/L	0.050	0.00097	1	02/27/18 10:06	02/28/18 18:43	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	02/27/18 10:06	02/28/18 18:43	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	02/27/18 10:06	02/28/18 18:43	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	02/27/18 10:06	02/28/18 18:43	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00050	0.000036	1	02/27/18 15:30	02/28/18 17:24	7439-97-6	
2540C Total Dissolved Solids		Analytical Method: SM 2540C							
Total Dissolved Solids	87.0	mg/L	25.0	25.0	1		02/27/18 11:57		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Chloride	2.0	mg/L	0.25	0.024	1		02/23/18 00:47	16887-00-6	
Fluoride	ND	mg/L	0.30	0.029	1		02/23/18 00:47	16984-48-8	
Sulfate	20.6	mg/L	2.0	0.034	2		03/02/18 18:31	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Yates Phase II

Pace Project No.: 262050

Sample: PZ-37		Lab ID: 262050007		Collected: 02/20/18 12:20		Received: 02/20/18 16:50		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00078	1	02/27/18 10:06	02/28/18 18:54	7440-36-0		
Arsenic	ND	mg/L	0.0050	0.00057	1	02/27/18 10:06	02/28/18 18:54	7440-38-2		
Barium	0.059	mg/L	0.010	0.00078	1	02/27/18 10:06	02/28/18 18:54	7440-39-3		
Beryllium	ND	mg/L	0.015	0.00025	5	02/27/18 10:06	03/05/18 13:16	7440-41-7	D3	
Boron	19.5	mg/L	2.0	0.20	50	02/27/18 10:06	02/28/18 19:00	7440-42-8		
Cadmium	ND	mg/L	0.0010	0.000093	1	02/27/18 10:06	02/28/18 18:54	7440-43-9		
Calcium	124	mg/L	25.0	0.69	50	02/27/18 10:06	02/28/18 19:00	7440-70-2		
Chromium	ND	mg/L	0.010	0.0016	1	02/27/18 10:06	02/28/18 18:54	7440-47-3		
Cobalt	0.016	mg/L	0.010	0.00052	1	02/27/18 10:06	02/28/18 18:54	7440-48-4		
Lead	ND	mg/L	0.0050	0.00027	1	02/27/18 10:06	02/28/18 18:54	7439-92-1		
Lithium	ND	mg/L	0.25	0.0049	5	02/27/18 10:06	03/05/18 13:16	7439-93-2	D3	
Molybdenum	ND	mg/L	0.010	0.0019	1	02/27/18 10:06	02/28/18 18:54	7439-98-7		
Selenium	0.32	mg/L	0.010	0.0014	1	02/27/18 10:06	02/28/18 18:54	7782-49-2		
Thallium	ND	mg/L	0.0010	0.00014	1	02/27/18 10:06	02/28/18 18:54	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.000036	1	02/27/18 15:30	02/28/18 17:27	7439-97-6		
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	1050	mg/L	50.0	50.0	1		02/27/18 11:57			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Chloride	5.2	mg/L	0.25	0.024	1		02/23/18 01:08	16887-00-6		
Fluoride	0.45	mg/L	0.30	0.029	1		02/23/18 01:08	16984-48-8		
Sulfate	677	mg/L	50.0	0.85	50		03/02/18 20:14	14808-79-8		

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QUALITY CONTROL DATA

Project: Plant Yates Phase II
Pace Project No.: 262050

QC Batch: 1653 Analysis Method: EPA 7470A
QC Batch Method: EPA 7470A Analysis Description: 7470 Mercury
Associated Lab Samples: 262050001, 262050003, 262050005, 262050007

METHOD BLANK: 9605 Matrix: Water
Associated Lab Samples: 262050001, 262050003, 262050005, 262050007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00050	0.000036	02/28/18 16:49	

LABORATORY CONTROL SAMPLE: 9606

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	.0025	0.0029	116	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 9838 9839

Parameter	Units	262048003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	mg/L	ND	.0025	.0025	0.0029	0.0029	115	117	75-125	1	20	

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QUALITY CONTROL DATA

Project: Plant Yates Phase II
Pace Project No.: 262050

QC Batch: 1650 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020B MET
Associated Lab Samples: 262050001, 262050003, 262050005, 262050007

METHOD BLANK: 9599 Matrix: Water
Associated Lab Samples: 262050001, 262050003, 262050005, 262050007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00078	02/28/18 15:31	
Arsenic	mg/L	ND	0.0050	0.00057	02/28/18 15:31	
Barium	mg/L	ND	0.010	0.00078	02/28/18 15:31	
Beryllium	mg/L	ND	0.0030	0.000050	02/28/18 15:31	
Boron	mg/L	ND	0.040	0.0039	02/28/18 15:31	
Cadmium	mg/L	ND	0.0010	0.000093	02/28/18 15:31	
Calcium	mg/L	ND	0.50	0.014	02/28/18 15:31	
Chromium	mg/L	ND	0.010	0.0016	02/28/18 15:31	
Cobalt	mg/L	ND	0.010	0.00052	02/28/18 15:31	
Lead	mg/L	ND	0.0050	0.00027	02/28/18 15:31	
Lithium	mg/L	ND	0.050	0.00097	02/28/18 15:31	
Molybdenum	mg/L	ND	0.010	0.0019	02/28/18 15:31	
Selenium	mg/L	ND	0.010	0.0014	02/28/18 15:31	
Thallium	mg/L	ND	0.0010	0.00014	02/28/18 15:31	

LABORATORY CONTROL SAMPLE: 9600

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	.1	0.11	109	80-120	
Arsenic	mg/L	.1	0.10	103	80-120	
Barium	mg/L	.1	0.11	106	80-120	
Beryllium	mg/L	.1	0.10	104	80-120	
Boron	mg/L	1	1.0	105	80-120	
Cadmium	mg/L	.1	0.10	104	80-120	
Calcium	mg/L	1	1.1	106	80-120	
Chromium	mg/L	.1	0.11	105	80-120	
Cobalt	mg/L	.1	0.10	104	80-120	
Lead	mg/L	.1	0.10	103	80-120	
Lithium	mg/L	.1	0.11	105	80-120	
Molybdenum	mg/L	.1	0.11	109	80-120	
Selenium	mg/L	.1	0.10	105	80-120	
Thallium	mg/L	.1	0.10	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 9685 9686

Parameter	Units	262048001 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	MS Result	MSD Result	MSD Result						
Antimony	mg/L	ND	.1	.1	0.11	0.11	108	108	75-125	0	20	

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QUALITY CONTROL DATA

Project: Plant Yates Phase II

Pace Project No.: 262050

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 9685			9686									
Parameter	Units	262048001 Result	MS	MSD	MS	MSD	MS	MSD	% Rec	Max		
			Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
Arsenic	mg/L	ND	.1	.1	0.10	0.10	104	104	75-125	0	20	
Barium	mg/L	0.053	.1	.1	0.16	0.17	102	119	75-125	10	20	
Beryllium	mg/L	ND	.1	.1	0.10	0.11	104	107	75-125	3	20	
Boron	mg/L	ND	1	1	1.0	1.2	103	117	75-125	13	20	
Cadmium	mg/L	ND	.1	.1	0.10	0.10	100	103	75-125	2	20	
Calcium	mg/L	ND	1	1	15.6J	15.4J	157	140	75-125	1	20	M6
Chromium	mg/L	ND	.1	.1	0.10	0.11	105	111	75-125	6	20	
Cobalt	mg/L	ND	.1	.1	0.10	0.11	101	109	75-125	7	20	
Lead	mg/L	ND	.1	.1	0.10	0.10	101	101	75-125	0	20	
Lithium	mg/L	ND	.1	.1	0.10	0.11	102	110	75-125	7	20	
Molybdenum	mg/L	ND	.1	.1	0.11	0.11	107	110	75-125	2	20	
Selenium	mg/L	ND	.1	.1	0.10	0.11	104	107	75-125	3	20	
Thallium	mg/L	ND	.1	.1	0.10	0.10	100	101	75-125	1	20	

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QUALITY CONTROL DATA

Project: Plant Yates Phase II
Pace Project No.: 262050

QC Batch: 399633 Analysis Method: SM 2540C
QC Batch Method: SM 2540C Analysis Description: 2540C Total Dissolved Solids
Associated Lab Samples: 262050001, 262050003

METHOD BLANK: 2216623 Matrix: Water
Associated Lab Samples: 262050001, 262050003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	2.52	2.5	2.5	02/25/18 10:19	

LABORATORY CONTROL SAMPLE: 2216624

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	250	228	91	90-110	

SAMPLE DUPLICATE: 2216625

Parameter	Units	92373944008 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	176	172	2	5	

SAMPLE DUPLICATE: 2216626

Parameter	Units	92373944018 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	ND	25.02		5	

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QUALITY CONTROL DATA

Project: Plant Yates Phase II
Pace Project No.: 262050

QC Batch: 399830 Analysis Method: SM 2540C
QC Batch Method: SM 2540C Analysis Description: 2540C Total Dissolved Solids
Associated Lab Samples: 262050005, 262050007

METHOD BLANK: 2217434 Matrix: Water
Associated Lab Samples: 262050005, 262050007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	25.02	25.0	25.0	02/27/18 11:57	

LABORATORY CONTROL SAMPLE: 2217435

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	250	246	98	90-110	

SAMPLE DUPLICATE: 2217436

Parameter	Units	92374543023 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1600	1740	9	5	D6

SAMPLE DUPLICATE: 2217437

Parameter	Units	92374543024 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	124	120	3	5	

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QUALITY CONTROL DATA

Project: Plant Yates Phase II
Pace Project No.: 262050

QC Batch: 1441 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 262050001, 262050003, 262050005, 262050007

METHOD BLANK: 8751 Matrix: Water
Associated Lab Samples: 262050001, 262050003, 262050005, 262050007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.024	02/22/18 18:36	
Fluoride	mg/L	ND	0.30	0.029	02/22/18 18:36	
Sulfate	mg/L	ND	1.0	0.017	02/22/18 18:36	

LABORATORY CONTROL SAMPLE: 8752

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	10	10.1	101	90-110	
Fluoride	mg/L	10	10.1	101	90-110	
Sulfate	mg/L	10	10.2	102	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 8753 8754

Parameter	Units	262048001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	4.3	10	10	14.0	14.0	97	97	90-110	0	15	
Fluoride	mg/L	ND	10	10	10.1	10.1	99	99	90-110	0	15	
Sulfate	mg/L	64.6	10	10	66.3	66.3	17	18	90-110	0	15 E	

MATRIX SPIKE SAMPLE: 8755

Parameter	Units	262069003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	4.4	10	13.8	94	90-110	
Fluoride	mg/L	0.21J	10	9.8	96	90-110	
Sulfate	mg/L	5.2	10	14.8	96	90-110	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Phase II

Pace Project No.: 262050

Sample: PZ-41 **Lab ID: 262050002** Collected: 02/19/18 14:00 Received: 02/20/18 16:50 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.693 ± 0.302 (0.395) C:87% T:NA	pCi/L	03/01/18 10:19	13982-63-3	
Radium-228	EPA 9320	1.13 ± 0.481 (0.731) C:72% T:82%	pCi/L	03/06/18 13:24	15262-20-1	
Total Radium	Total Radium Calculation	1.82 ± 0.783 (1.13)	pCi/L	03/09/18 12:47	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Phase II

Pace Project No.: 262050

Sample: PZ-40 **Lab ID: 262050004** Collected: 02/19/18 15:25 Received: 02/20/18 16:50 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.869 ± 0.320 (0.290) C:81% T:NA	pCi/L	03/01/18 10:19	13982-63-3	
Radium-228	EPA 9320	1.18 ± 0.541 (0.891) C:73% T:78%	pCi/L	03/06/18 13:24	15262-20-1	
Total Radium	Total Radium Calculation	2.05 ± 0.861 (1.18)	pCi/L	03/09/18 12:47	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Phase II

Pace Project No.: 262050

Sample: PZ-39 **Lab ID: 262050006** Collected: 02/20/18 10:15 Received: 02/20/18 16:50 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.106 ± 0.147 (0.312) C:79% T:NA	pCi/L	03/01/18 10:19	13982-63-3	
Radium-228	EPA 9320	1.47 ± 0.599 (0.932) C:76% T:74%	pCi/L	03/06/18 13:24	15262-20-1	
Total Radium	Total Radium Calculation	1.58 ± 0.746 (1.24)	pCi/L	03/09/18 12:47	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Phase II

Pace Project No.: 262050

Sample: PZ-37 **Lab ID: 262050008** Collected: 02/20/18 12:20 Received: 02/20/18 16:50 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	1.83 ± 0.416 (0.214) C:86% T:NA	pCi/L	02/28/18 13:45	13982-63-3	
Radium-228	EPA 9320	0.924 ± 0.500 (0.878) C:78% T:71%	pCi/L	03/06/18 13:25	15262-20-1	
Total Radium	Total Radium Calculation	2.75 ± 0.916 (1.09)	pCi/L	03/09/18 12:47	7440-14-4	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Yates Phase II

Pace Project No.: 262050

QC Batch:	289268	Analysis Method:	EPA 9315
QC Batch Method:	EPA 9315	Analysis Description:	9315 Total Radium
Associated Lab Samples:	262050002, 262050004, 262050006		

METHOD BLANK:	1417374	Matrix:	Water
Associated Lab Samples:	262050002, 262050004, 262050006		

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.206 ± 0.148 (0.216) C:92% T:NA	pCi/L	03/01/18 10:12	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Yates Phase II

Pace Project No.: 262050

QC Batch: 289269

Analysis Method: EPA 9315

QC Batch Method: EPA 9315

Analysis Description: 9315 Total Radium

Associated Lab Samples: 262050008

METHOD BLANK: 1417375

Matrix: Water

Associated Lab Samples: 262050008

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.147 ± 0.117 (0.204) C:89% T:NA	pCi/L	02/28/18 13:45	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Yates Phase II

Pace Project No.: 262050

QC Batch:	289271	Analysis Method:	EPA 9320
QC Batch Method:	EPA 9320	Analysis Description:	9320 Radium 228
Associated Lab Samples:	262050002, 262050004, 262050006, 262050008		

METHOD BLANK:	1417377	Matrix:	Water
Associated Lab Samples:	262050002, 262050004, 262050006, 262050008		

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.557 ± 0.408 (0.796) C:80% T:87%	pCi/L	03/06/18 13:23	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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QUALIFIERS

Project: Plant Yates Phase II

Pace Project No.: 262050

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval).

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-A Pace Analytical Services - Asheville

PASI-GA Pace Analytical Services - Atlanta, GA

PASI-PA Pace Analytical Services - Greensburg

ANALYTE QUALIFIERS

D3 Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

D6 The precision between the sample and sample duplicate exceeded laboratory control limits.

E Analyte concentration exceeded the calibration range. The reported result is estimated.

M6 Matrix spike and Matrix spike duplicate recovery not evaluated against control limits due to sample dilution.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Yates Phase II
Pace Project No.: 262050

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
262050001	PZ-41	EPA 3005A	1650	EPA 6020B	1792
262050003	PZ-40	EPA 3005A	1650	EPA 6020B	1792
262050005	PZ-39	EPA 3005A	1650	EPA 6020B	1792
262050007	PZ-37	EPA 3005A	1650	EPA 6020B	1792
262050001	PZ-41	EPA 7470A	1653	EPA 7470A	1776
262050003	PZ-40	EPA 7470A	1653	EPA 7470A	1776
262050005	PZ-39	EPA 7470A	1653	EPA 7470A	1776
262050007	PZ-37	EPA 7470A	1653	EPA 7470A	1776
262050002	PZ-41	EPA 9315	289268		
262050004	PZ-40	EPA 9315	289268		
262050006	PZ-39	EPA 9315	289268		
262050008	PZ-37	EPA 9315	289269		
262050002	PZ-41	EPA 9320	289271		
262050004	PZ-40	EPA 9320	289271		
262050006	PZ-39	EPA 9320	289271		
262050008	PZ-37	EPA 9320	289271		
262050002	PZ-41	Total Radium Calculation	290744		
262050004	PZ-40	Total Radium Calculation	290744		
262050006	PZ-39	Total Radium Calculation	290744		
262050008	PZ-37	Total Radium Calculation	290744		
262050001	PZ-41	SM 2540C	399633		
262050003	PZ-40	SM 2540C	399633		
262050005	PZ-39	SM 2540C	399830		
262050007	PZ-37	SM 2540C	399830		
262050001	PZ-41	EPA 300.0	1441		
262050003	PZ-40	EPA 300.0	1441		
262050005	PZ-39	EPA 300.0	1441		
262050007	PZ-37	EPA 300.0	1441		

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CHAIN OF CUSTODY RECORD

Pace Analytical Services, Inc.
110 TECHNOLOGY PARKWAY, PEACHTREE CORNERS, GA 30092
(770) 734-4200 : FAX (770) 734-4201 : www.asi-lab.com

PAGE: 1 OF 2

CLIENT NAME: Georgia Power		CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER: 241 Ralph McGill Blvd SE B10185 Atlanta, GA 30308		REPORT TO: Lauren Petty CC: Maria Padilla Heath McCorkle	
REQUESTED COMPLETION DATE: LABURCH@southernco.com		PROJECT NAME/STATE: Plant Yates Phase II Facilities		PROJECT #: Phase 2 CCR	
Collection DATE	Collection TIME	MATRIX CODE*	SAMPLE IDENTIFICATION		
2-19-18	14:00	GW	X	P2-41	
2-19-18	15:25	GW	X	P2-40	
2-20-18	10:15	GW	X	P2-39	
2-20-18	12:20	GW	X	P2-37	
SAMPLED BY AND TITLE: R. Waller		DATE/TIME: 2-20-18 1500		RELINQUISHED BY: <i>[Signature]</i>	
RECEIVED BY: <i>[Signature]</i>		DATE/TIME: 2-20-18 1650		RELINQUISHED BY: <i>[Signature]</i>	
RECEIVED BY LAB: <i>[Signature]</i>		DATE/TIME: 2-20-18 1650		RELINQUISHED BY: <i>[Signature]</i>	
pH checked: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/>		Temperature: Min: <u>0.2</u> Max: <u>15.0</u>		COURIER: <u>Client</u> OTHER: <input type="checkbox"/>	
Sampled by: <u>Acc</u>		DATE/TIME: <u>2-20-18</u>		DATE/TIME: <u>2-20-18</u>	
Sampled by: <u>Acc</u>		DATE/TIME: <u>2-20-18</u>		DATE/TIME: <u>2-20-18</u>	
Sampled by: <u>Acc</u>		DATE/TIME: <u>2-20-18</u>		DATE/TIME: <u>2-20-18</u>	

CONTAINER TYPE	ANALYSIS REQUESTED	CONTAINER TYPE	PRESERVATION
P - PLASTIC	P 3	L	1 - HCl, ≤6°C
A - AMBER GLASS	P 7	A	2 - H ₂ SO ₄ , ≤6°C
G - CLEAR GLASS	P 3	B	3 - HNO ₃
V - VOA VIAL			4 - NaOH, ≤6°C
S - STERILE			5 - NaOH/ZnAc, ≤6°C
O - OTHER			6 - Na ₂ S ₂ O ₃ , ≤6°C
			7 - ≤6°C not frozen
			*MATRIX CODES:
			DW - DRINKING WATER S - SOIL
			WW - WASTEWATER SL - SLUDGE
			GW - GROUNDWATER SD - SOLID
			SW - SURFACE WATER A - AIR
			ST - STORM WATER L - LIQUID
			W - WATER P - PRODUCT
			REMARKS/ADDITIONAL INFORMATION

FOR LAB USE ONLY

Entered into LIMS: Tracking #: 1650

LAB #: 262050

WO#: 262050

262050

Plant Yates COC Phase II.xlsx

Sample Condition Upon Receipt

WO# : 262050

Face Analytical

Client Name: GAPower

PM: BM Due Date: 02/27/18
CLIENT: GAPower-CCR

Courier: Fed Ex UPS USPS Client Commercial Pace Other

Tracking #: _____

Proj Name _____

Custody Seal on Cooler/Box Present: yes no Seals intact: yes no

Packing Material: Bubble Wrap Bubble Bags None Other

Thermometer Used THERM Type of Ice: Wet Blue None Samples on ice, cooling process has begun

Cooler Temperature 0.2°C
Temp should be above freezing to 6°C

Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: 2/20/18 GW

Comments:

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Pace Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes date/time/ID/Analysis Matrix: <u>GW</u>		
All containers needing preservation have been checked	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Initial when completed
		Lot # of added preservative
Samples checked for dechlorination:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	16.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased): _____		

Client Notification/ Resolution:

Field Data Required? Y / N

Person Contacted _____ Date/Time _____

Comments/ Resolution: _____

Project Manager Review: _____

Date: _____

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

Product Name: Low-Flow System

Date: 2018-04-03 12:19:45

Project Information:

Operator Name Chris Parker
Company Name ACC
Project Name Plant Yates - Phase 2
Site Name Plant Yates - Phase 2 CCR
Latitude 33° 27' 27.71"
Longitude -84° -53' -49.99"
Sonde SN 466086
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type QED
Tubing Type Bladder
Tubing Diameter .25 in
Tubing Length 46 ft

Pump placement from TOC 41 ft

Well Information:

Well ID PZ-37
Well diameter 2 in
Well Total Depth 46.50 ft
Screen Length 10 ft
Depth to Water 11.05 ft

Pumping Information:

Final Pumping Rate 220 mL/min
Total System Volume 0.9290257 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 3 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	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	11:55:16	600.01	19.50	5.60	1118.44	11.00	11.20	1.59	151.54
Last 5	12:00:16	900.01	19.09	5.65	1145.71	8.45	11.20	1.06	135.59
Last 5	12:05:16	1200.01	18.61	5.65	1158.53	6.38	11.20	0.88	129.21
Last 5	12:10:16	1500.01	18.30	5.67	1178.46	4.78	11.30	0.34	124.36
Last 5	12:15:16	1800.00	18.24	5.66	1188.18	4.31	11.30	0.22	120.27
Variance 0			-0.47	0.00	12.82			-0.18	-6.37
Variance 1			-0.31	0.02	19.93			-0.54	-4.85
Variance 2			-0.06	-0.01	9.72			-0.12	-4.10

Notes

Collected at 12:20. Cloudy 70s. DUP 5 here

Grab Samples

Product Name: Low-Flow System

Date: 2018-04-03 11:03:51

Project Information:

Operator Name Chris Parker
Company Name ACC
Project Name Plant Yates - Phase 2
Site Name Plant Yates - Phase 2 CCR
Latitude 33° 27' 27.71"
Longitude -84° -53' -49.99"
Sonde SN 466086
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type QED
Tubing Type Bladder
Tubing Diameter .25 in
Tubing Length 50 ft

Pump placement from TOC 45 ft

Well Information:

Well ID PZ-38
Well diameter 2 in
Well Total Depth 50.12 ft
Screen Length 10 ft
Depth to Water 31.15 ft

Pumping Information:

Final Pumping Rate 140 mL/min
Total System Volume 0.9676365 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 12 in
Total Volume Pumped 5.5 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	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	10:41:42	600.01	17.41	4.88	1572.40	2.78	32.20	1.04	147.52
Last 5	10:46:42	900.01	17.27	4.77	1577.15	2.09	32.20	0.86	151.60
Last 5	10:51:42	1200.01	17.32	4.75	1576.07	1.89	32.20	0.93	155.71
Last 5	10:56:42	1499.99	17.35	4.79	1577.19	1.54	32.20	0.78	156.94
Last 5	11:01:42	1799.99	17.48	4.76	1574.39	1.61	32.20	0.88	161.54
Variance 0			0.05	-0.03	-1.08			0.06	4.11
Variance 1			0.03	0.05	1.12			-0.15	1.23
Variance 2			0.13	-0.03	-2.80			0.10	4.61

Notes

Collected at 11:05. Cloudy 60s. EB 5 here at 10:40-gloves

Grab Samples

Product Name: Low-Flow System

Date: 2018-04-03 10:51:37

Project Information:

Operator Name J Berisford
Company Name Atlantic Coast Consulting
Project Name Plant Yates- Phase 2
Site Name Plant Yates
Latitude 33° 27' 0.31"
Longitude -84° -53' -48.64"
Sonde SN 466058
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED Bladder
Tubing Type poly
Tubing Diameter .375 in
Tubing Length 68 ft

Pump placement from TOC 63 ft

Well Information:

Well ID PZ-39
Well diameter 2 in
Well Total Depth 68.45 ft
Screen Length 10 ft
Depth to Water 24.70 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 1.961868 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 3.6 in
Total Volume Pumped 8.25 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%	+/- 0		+/- 10%	+/- 10
Last 5	10:30:32	2099.99	18.29	6.87	93.27	6.41	25.00	3.83	112.80
Last 5	10:35:32	2399.97	18.35	7.02	92.00	6.06	25.00	4.26	106.83
Last 5	10:40:32	2699.97	18.50	6.89	91.56	5.69	25.00	4.42	108.99
Last 5	10:45:32	2999.96	18.34	6.85	90.55	5.48	25.00	4.51	112.26
Last 5	10:50:32	3299.96	18.52	6.87	89.91	4.87	25.00	4.70	107.72
Variance 0			0.15	-0.12	-0.44			0.16	2.16
Variance 1			-0.15	-0.04	-1.00			0.09	3.28
Variance 2			0.18	0.02	-0.64			0.19	-4.55

Notes

Cloudy, sample time- 1050

Grab Samples

Product Name: Low-Flow System

Date: 2018-04-03 11:52:20

Project Information:

Operator Name J Berisford
Company Name Atlantic Coast Consulting
Project Name Plant Yates- Phase 2
Site Name Plant Yates
Latitude 33° 27' 0.9"
Longitude -84° -53' -53.73"
Sonde SN 466058
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED Bladder
Tubing Type poly
Tubing Diameter .375 in
Tubing Length 48 ft

Pump placement from TOC 43 ft

Well Information:

Well ID PZ-40
Well diameter 2 in
Well Total Depth 48.17 ft
Screen Length 10 ft
Depth to Water 25.66 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 1.527495 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 8.88 in
Total Volume Pumped 4.5 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%	+/- 0		+/- 10%	+/- 10
Last 5	11:30:01	600.02	19.06	5.97	137.75	1.93	26.30	6.01	118.04
Last 5	11:35:01	900.01	18.80	5.92	139.70	1.66	26.40	5.35	121.03
Last 5	11:40:01	1200.01	19.02	5.89	142.61	1.93	26.40	5.20	123.73
Last 5	11:45:01	1500.01	18.84	5.86	145.71	1.53	26.40	5.23	127.19
Last 5	11:50:01	1800.00	19.23	5.84	149.50	1.50	26.40	5.31	129.96
Variance 0			0.21	-0.03	2.91			-0.14	2.70
Variance 1			-0.18	-0.02	3.10			0.03	3.46
Variance 2			0.39	-0.02	3.79			0.08	2.77

Notes

Sunny, sample time- 1150

Grab Samples

Product Name: Low-Flow System

Date: 2018-04-03 13:23:25

Project Information:

Operator Name J Berisford
Company Name Atlantic Coast Consulting
Project Name Plant Yates- Phase 2
Site Name Plant Yates
Latitude 33° 27' 7.86"
Longitude -84° -53' -55.77"
Sonde SN 466058
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED Bladder
Tubing Type poly
Tubing Diameter .375 in
Tubing Length 67 ft

Pump placement from TOC 62 ft

Well Information:

Well ID PZ-40
Well diameter 2 in
Well Total Depth 67.70 ft
Screen Length 10 ft
Depth to Water 27.67 ft

Pumping Information:

Final Pumping Rate 110 mL/min
Total System Volume 1.940149 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 7.56 in
Total Volume Pumped 3.3 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%	+/- 0		+/- 10%	+/- 10
Last 5	13:00:02	900.01	19.06	5.45	818.97	3.31	28.20	3.37	154.42
Last 5	13:05:03	1201.01	19.17	5.33	830.04	2.50	28.30	3.33	154.46
Last 5	13:10:03	1501.00	19.15	5.34	834.04	2.03	28.30	3.54	155.47
Last 5	13:15:03	1801.00	18.92	5.31	845.62	2.01	28.30	3.91	157.21
Last 5	13:20:03	2100.99	18.85	5.31	840.82	--	--	3.79	156.47
Variance 0			-0.03	0.01	4.00			0.21	1.01
Variance 1			-0.23	-0.04	11.58			0.36	1.74
Variance 2			-0.07	-0.00	-4.80			-0.12	-0.74

Notes

Sunny, sample time-1320, FB-5-4-3-18 at 1300

Grab Samples

January 15, 2019

Joju Abraham
Georgia Power - Coal Combustion Residuals
2480 Maner Road
Atlanta, GA 30339

RE: Project: Plant Yates Phase II
Pace Project No.: 263580

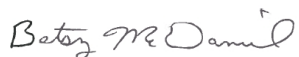
Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on April 04, 2018. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

Revision 1 - This report replaces the April 30, 2018 report. This project was revised on January 14, 2019 to reflect the correction of Ra-226/228 calculations. (Greensburg, PA)

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Betsy McDaniel
betsy.mcdaniel@pacelabs.com
(770)734-4200
Project Manager

Enclosures

cc: Maria Padilla, Georgia Power
Chris Parker, Atlantic Coast Consulting
Evan Perry, Atlantic Coast Consulting
Lauren Petty, Southern Company Services, Inc.
Rebecca Thornton, Pace Analytical Atlanta



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: Plant Yates Phase II
Pace Project No.: 263580

Atlanta Certification IDs

110 Technology Parkway Peachtree Corners, GA 30092
Florida DOH Certification #: E87315
Georgia DW Inorganics Certification #: 812
Georgia DW Microbiology Certification #: 812

North Carolina Certification #: 381
South Carolina Certification #: 98011001
Virginia Certification #: 460204

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
Delaware Certification
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA180012
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: 2017020
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991

Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572018-1
New Hampshire/TNI Certification #: 297617
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-010
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: 02867
Texas/TNI Certification #: T104704188-17-3
Utah/TNI Certification #: PA014572017-9
USDA Soil Permit #: P330-17-00091
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 9526
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad
Wyoming Certification #: 8TMS-L

Asheville Certification IDs

2225 Riverside Drive, Asheville, NC 28804
Florida/NELAP Certification #: E87648
Massachusetts Certification #: M-NC030
North Carolina Drinking Water Certification #: 37712

North Carolina Wastewater Certification #: 40
South Carolina Certification #: 99030001
Virginia/VELAP Certification #: 460222

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: Plant Yates Phase II
Pace Project No.: 263580

Lab ID	Sample ID	Matrix	Date Collected	Date Received
263580001	PZ-38	Water	04/03/18 11:05	04/04/18 16:45
263580002	PZ-38	Water	04/03/18 11:05	04/04/18 16:45
263580003	EB-5-4-3-18	Water	04/03/18 10:40	04/04/18 16:45
263580004	EB-5-4-3-18	Water	04/03/18 10:40	04/04/18 16:45
263580005	PZ-37	Water	04/03/18 12:20	04/04/18 16:45
263580006	PZ-37	Water	04/03/18 12:20	04/04/18 16:45
263580007	PZ-39	Water	04/03/18 10:50	04/04/18 16:45
263580008	PZ-39	Water	04/03/18 10:50	04/04/18 16:45
263580009	PZ-40	Water	04/03/18 11:50	04/04/18 16:45
263580010	PZ-40	Water	04/03/18 11:50	04/04/18 16:45
263580011	PZ-41	Water	04/03/18 13:20	04/04/18 16:45
263580012	PZ-41	Water	04/03/18 13:20	04/04/18 16:45
263580013	FB-5-4-3-18	Water	04/03/18 13:00	04/04/18 16:45
263580014	FB-5-4-3-18	Water	04/03/18 13:00	04/04/18 16:45
263580015	Dup-5	Water	04/03/18 00:00	04/04/18 16:45
263580016	Dup-5	Water	04/03/18 00:00	04/04/18 16:45

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: Plant Yates Phase II
Pace Project No.: 263580

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
263580001	PZ-38	EPA 6020B	CSW	14	PASI-GA
		EPA 7470A	AAP	1	PASI-GA
		SM 2540C	NAL	1	PASI-A
		EPA 300.0	RLC	3	PASI-GA
263580002	PZ-38	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
263580003	EB-5-4-3-18	EPA 6020B	CSW	14	PASI-GA
		EPA 7470A	AAP	1	PASI-GA
		SM 2540C	NAL	1	PASI-A
		EPA 300.0	RLC	3	PASI-GA
263580004	EB-5-4-3-18	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
263580005	PZ-37	EPA 6020B	CSW	14	PASI-GA
		EPA 7470A	AAP	1	PASI-GA
		SM 2540C	NAL	1	PASI-A
		EPA 300.0	RLC	3	PASI-GA
263580006	PZ-37	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
263580007	PZ-39	EPA 6020B	CSW	14	PASI-GA
		EPA 7470A	AAP	1	PASI-GA
		SM 2540C	NAL	1	PASI-A
		EPA 300.0	RLC	3	PASI-GA
263580008	PZ-39	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
263580009	PZ-40	EPA 6020B	CSW	14	PASI-GA
		EPA 7470A	AAP	1	PASI-GA
		SM 2540C	NAL	1	PASI-A
		EPA 300.0	RLC	3	PASI-GA
263580010	PZ-40	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
263580011	PZ-41	EPA 6020B	CSW	14	PASI-GA
		EPA 7470A	AAP	1	PASI-GA

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SAMPLE ANALYTE COUNT

Project: Plant Yates Phase II

Pace Project No.: 263580

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
263580012	PZ-41	SM 2540C	NAL	1	PASI-A
		EPA 300.0	RLC	3	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
263580013	FB-5-4-3-18	Total Radium Calculation	JAL	1	PASI-PA
		EPA 6020B	CSW	14	PASI-GA
		EPA 7470A	AAP	1	PASI-GA
		SM 2540C	NAL	1	PASI-A
263580014	FB-5-4-3-18	EPA 300.0	RLC	3	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
263580015	Dup-5	EPA 6020B	CSW	14	PASI-GA
		EPA 7470A	AAP	1	PASI-GA
		SM 2540C	NAL	1	PASI-A
		EPA 300.0	RLC	3	PASI-GA
263580016	Dup-5	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Yates Phase II
Pace Project No.: 263580

Sample: PZ-38		Lab ID: 263580001		Collected: 04/03/18 11:05		Received: 04/04/18 16:45		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00078	1	04/06/18 09:47	04/09/18 16:51	7440-36-0		
Arsenic	0.0015J	mg/L	0.0050	0.00057	1	04/06/18 09:47	04/09/18 16:51	7440-38-2		
Barium	0.023	mg/L	0.010	0.00078	1	04/06/18 09:47	04/09/18 16:51	7440-39-3		
Beryllium	0.0056	mg/L	0.0030	0.000050	1	04/06/18 09:47	04/09/18 16:51	7440-41-7		
Boron	20.9	mg/L	2.0	0.20	50	04/06/18 09:47	04/09/18 16:56	7440-42-8		
Cadmium	0.0027	mg/L	0.0010	0.000093	1	04/06/18 09:47	04/09/18 16:51	7440-43-9		
Calcium	174	mg/L	25.0	0.69	50	04/06/18 09:47	04/09/18 16:56	7440-70-2		
Chromium	ND	mg/L	0.010	0.0016	1	04/06/18 09:47	04/09/18 16:51	7440-47-3		
Cobalt	ND	mg/L	0.010	0.00052	1	04/06/18 09:47	04/09/18 16:51	7440-48-4		
Lead	ND	mg/L	0.0050	0.00027	1	04/06/18 09:47	04/09/18 16:51	7439-92-1		
Lithium	0.0097J	mg/L	0.050	0.00097	1	04/06/18 09:47	04/09/18 16:51	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.0019	1	04/06/18 09:47	04/09/18 16:51	7439-98-7		
Selenium	0.23	mg/L	0.010	0.0014	1	04/06/18 09:47	04/09/18 16:51	7782-49-2		
Thallium	ND	mg/L	0.0010	0.00014	1	04/06/18 09:47	04/09/18 16:51	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.000036	1	04/09/18 11:00	04/09/18 15:12	7439-97-6		
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	1390	mg/L	50.0	50.0	1		04/08/18 16:46			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Chloride	6.9	mg/L	0.25	0.024	1		04/11/18 07:53	16887-00-6		
Fluoride	0.41	mg/L	0.30	0.029	1		04/11/18 07:53	16984-48-8	M1	
Sulfate	872	mg/L	50.0	0.85	50		04/11/18 18:29	14808-79-8	M1	

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ANALYTICAL RESULTS

Project: Plant Yates Phase II

Pace Project No.: 263580

Sample: EB-5-4-3-18		Lab ID: 263580003		Collected: 04/03/18 10:40		Received: 04/04/18 16:45		Matrix: Water	
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Antimony	ND	mg/L	0.0030	0.00078	1	04/06/18 09:47	04/09/18 17:02	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	04/06/18 09:47	04/09/18 17:02	7440-38-2	
Barium	ND	mg/L	0.010	0.00078	1	04/06/18 09:47	04/09/18 17:02	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	04/06/18 09:47	04/09/18 17:02	7440-41-7	
Boron	0.016J	mg/L	0.040	0.0039	1	04/06/18 09:47	04/09/18 17:02	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000093	1	04/06/18 09:47	04/09/18 17:02	7440-43-9	
Calcium	ND	mg/L	0.50	0.014	1	04/06/18 09:47	04/09/18 17:02	7440-70-2	
Chromium	ND	mg/L	0.010	0.0016	1	04/06/18 09:47	04/09/18 17:02	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	04/06/18 09:47	04/09/18 17:02	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	04/06/18 09:47	04/09/18 17:02	7439-92-1	
Lithium	ND	mg/L	0.050	0.00097	1	04/06/18 09:47	04/09/18 17:02	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	04/06/18 09:47	04/09/18 17:02	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	04/06/18 09:47	04/09/18 17:02	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	04/06/18 09:47	04/09/18 17:02	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00050	0.000036	1	04/09/18 11:00	04/09/18 15:14	7439-97-6	
2540C Total Dissolved Solids		Analytical Method: SM 2540C							
Total Dissolved Solids	ND	mg/L	25.0	25.0	1		04/08/18 16:46		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Chloride	ND	mg/L	0.25	0.024	1		04/11/18 08:56	16887-00-6	B
Fluoride	ND	mg/L	0.30	0.029	1		04/11/18 08:56	16984-48-8	
Sulfate	ND	mg/L	1.0	0.017	1		04/11/18 08:56	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Yates Phase II

Pace Project No.: 263580

Sample: PZ-37		Lab ID: 263580005		Collected: 04/03/18 12:20		Received: 04/04/18 16:45		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00078	1	04/06/18 09:47	04/09/18 17:19	7440-36-0		
Arsenic	0.0012J	mg/L	0.0050	0.00057	1	04/06/18 09:47	04/09/18 17:19	7440-38-2		
Barium	0.051	mg/L	0.010	0.00078	1	04/06/18 09:47	04/09/18 17:19	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000050	1	04/06/18 09:47	04/09/18 17:19	7440-41-7		
Boron	17.5	mg/L	2.0	0.20	50	04/06/18 09:47	04/09/18 17:25	7440-42-8		
Cadmium	ND	mg/L	0.0010	0.000093	1	04/06/18 09:47	04/09/18 17:19	7440-43-9		
Calcium	114	mg/L	25.0	0.69	50	04/06/18 09:47	04/09/18 17:25	7440-70-2		
Chromium	ND	mg/L	0.010	0.0016	1	04/06/18 09:47	04/09/18 17:19	7440-47-3		
Cobalt	0.015	mg/L	0.010	0.00052	1	04/06/18 09:47	04/09/18 17:19	7440-48-4		
Lead	ND	mg/L	0.0050	0.00027	1	04/06/18 09:47	04/09/18 17:19	7439-92-1		
Lithium	0.027J	mg/L	0.050	0.00097	1	04/06/18 09:47	04/09/18 17:19	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.0019	1	04/06/18 09:47	04/09/18 17:19	7439-98-7		
Selenium	0.28	mg/L	0.010	0.0014	1	04/06/18 09:47	04/09/18 17:19	7782-49-2		
Thallium	ND	mg/L	0.0010	0.00014	1	04/06/18 09:47	04/09/18 17:19	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.000036	1	04/09/18 11:00	04/09/18 15:17	7439-97-6		
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	1080	mg/L	50.0	50.0	1		04/08/18 16:46			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Chloride	4.8	mg/L	0.25	0.024	1		04/11/18 09:17	16887-00-6		
Fluoride	0.31	mg/L	0.30	0.029	1		04/11/18 09:17	16984-48-8		
Sulfate	615	mg/L	50.0	0.85	50		04/11/18 18:50	14808-79-8		

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ANALYTICAL RESULTS

Project: Plant Yates Phase II
Pace Project No.: 263580

Sample: PZ-39		Lab ID: 263580007		Collected: 04/03/18 10:50		Received: 04/04/18 16:45		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00078	1	04/06/18 09:47	04/09/18 17:31	7440-36-0		
Arsenic	ND	mg/L	0.0050	0.00057	1	04/06/18 09:47	04/09/18 17:31	7440-38-2		
Barium	ND	mg/L	0.010	0.00078	1	04/06/18 09:47	04/09/18 17:31	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000050	1	04/06/18 09:47	04/09/18 17:31	7440-41-7		
Boron	0.033J	mg/L	0.040	0.0039	1	04/06/18 09:47	04/09/18 17:31	7440-42-8		
Cadmium	ND	mg/L	0.0010	0.000093	1	04/06/18 09:47	04/09/18 17:31	7440-43-9		
Calcium	1.4	mg/L	0.50	0.014	1	04/06/18 09:47	04/09/18 17:31	7440-70-2		
Chromium	ND	mg/L	0.010	0.0016	1	04/06/18 09:47	04/09/18 17:31	7440-47-3		
Cobalt	ND	mg/L	0.010	0.00052	1	04/06/18 09:47	04/09/18 17:31	7440-48-4		
Lead	ND	mg/L	0.0050	0.00027	1	04/06/18 09:47	04/09/18 17:31	7439-92-1		
Lithium	0.0022J	mg/L	0.050	0.00097	1	04/06/18 09:47	04/09/18 17:31	7439-93-2		
Molybdenum	0.0060J	mg/L	0.010	0.0019	1	04/06/18 09:47	04/09/18 17:31	7439-98-7		
Selenium	ND	mg/L	0.010	0.0014	1	04/06/18 09:47	04/09/18 17:31	7782-49-2		
Thallium	ND	mg/L	0.0010	0.00014	1	04/06/18 09:47	04/09/18 17:31	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.000036	1	04/09/18 11:00	04/09/18 15:24	7439-97-6		
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	85.0	mg/L	25.0	25.0	1		04/08/18 16:46			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Chloride	3.3	mg/L	0.25	0.024	1		04/11/18 09:39	16887-00-6		
Fluoride	ND	mg/L	0.30	0.029	1		04/11/18 09:39	16984-48-8		
Sulfate	24.5	mg/L	1.0	0.017	1		04/11/18 09:39	14808-79-8		

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ANALYTICAL RESULTS

Project: Plant Yates Phase II
Pace Project No.: 263580

Sample: PZ-40		Lab ID: 263580009		Collected: 04/03/18 11:50		Received: 04/04/18 16:45		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00078	1	04/06/18 09:47	04/09/18 17:42	7440-36-0		
Arsenic	ND	mg/L	0.0050	0.00057	1	04/06/18 09:47	04/09/18 17:42	7440-38-2		
Barium	0.045	mg/L	0.010	0.00078	1	04/06/18 09:47	04/09/18 17:42	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000050	1	04/06/18 09:47	04/09/18 17:42	7440-41-7		
Boron	0.12	mg/L	0.040	0.0039	1	04/06/18 09:47	04/09/18 17:42	7440-42-8		
Cadmium	ND	mg/L	0.0010	0.000093	1	04/06/18 09:47	04/09/18 17:42	7440-43-9		
Calcium	6.3	mg/L	2.5	0.069	5	04/06/18 09:47	04/10/18 13:48	7440-70-2		
Chromium	ND	mg/L	0.010	0.0016	1	04/06/18 09:47	04/09/18 17:42	7440-47-3		
Cobalt	ND	mg/L	0.010	0.00052	1	04/06/18 09:47	04/09/18 17:42	7440-48-4		
Lead	ND	mg/L	0.0050	0.00027	1	04/06/18 09:47	04/09/18 17:42	7439-92-1		
Lithium	ND	mg/L	0.050	0.00097	1	04/06/18 09:47	04/09/18 17:42	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.0019	1	04/06/18 09:47	04/09/18 17:42	7439-98-7		
Selenium	ND	mg/L	0.010	0.0014	1	04/06/18 09:47	04/09/18 17:42	7782-49-2		
Thallium	ND	mg/L	0.0010	0.00014	1	04/06/18 09:47	04/09/18 17:42	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.000036	1	04/09/18 11:00	04/09/18 15:26	7439-97-6		
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	106	mg/L	25.0	25.0	1		04/08/18 16:46			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Chloride	5.9	mg/L	0.25	0.024	1		04/11/18 10:00	16887-00-6		
Fluoride	ND	mg/L	0.30	0.029	1		04/11/18 10:00	16984-48-8		
Sulfate	49.4	mg/L	1.0	0.017	1		04/11/18 10:00	14808-79-8	M1	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Yates Phase II
Pace Project No.: 263580

Sample: PZ-41		Lab ID: 263580011		Collected: 04/03/18 13:20		Received: 04/04/18 16:45		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00078	1	04/06/18 09:47	04/09/18 17:54	7440-36-0		
Arsenic	0.00072J	mg/L	0.0050	0.00057	1	04/06/18 09:47	04/09/18 17:54	7440-38-2		
Barium	0.030	mg/L	0.010	0.00078	1	04/06/18 09:47	04/09/18 17:54	7440-39-3		
Beryllium	0.0037	mg/L	0.0030	0.000050	1	04/06/18 09:47	04/09/18 17:54	7440-41-7		
Boron	14.5	mg/L	2.0	0.20	50	04/06/18 09:47	04/09/18 17:59	7440-42-8		
Cadmium	ND	mg/L	0.0010	0.000093	1	04/06/18 09:47	04/09/18 17:54	7440-43-9		
Calcium	42.7	mg/L	25.0	0.69	50	04/06/18 09:47	04/09/18 17:59	7440-70-2		
Chromium	ND	mg/L	0.010	0.0016	1	04/06/18 09:47	04/09/18 17:54	7440-47-3		
Cobalt	ND	mg/L	0.010	0.00052	1	04/06/18 09:47	04/09/18 17:54	7440-48-4		
Lead	ND	mg/L	0.0050	0.00027	1	04/06/18 09:47	04/09/18 17:54	7439-92-1		
Lithium	0.0047J	mg/L	0.050	0.00097	1	04/06/18 09:47	04/09/18 17:54	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.0019	1	04/06/18 09:47	04/09/18 17:54	7439-98-7		
Selenium	0.067	mg/L	0.010	0.0014	1	04/06/18 09:47	04/09/18 17:54	7782-49-2		
Thallium	ND	mg/L	0.0010	0.00014	1	04/06/18 09:47	04/09/18 17:54	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.000036	1	04/09/18 11:00	04/09/18 15:29	7439-97-6		
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	660	mg/L	50.0	50.0	1		04/08/18 16:46			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Chloride	4.4	mg/L	0.25	0.024	1		04/11/18 13:32	16887-00-6		
Fluoride	ND	mg/L	0.30	0.029	1		04/11/18 13:32	16984-48-8		
Sulfate	406	mg/L	50.0	0.85	50		04/11/18 19:12	14808-79-8		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Yates Phase II

Pace Project No.: 263580

Sample: FB-5-4-3-18		Lab ID: 263580013		Collected: 04/03/18 13:00		Received: 04/04/18 16:45		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00078	1	04/06/18 09:47	04/09/18 18:05	7440-36-0		
Arsenic	ND	mg/L	0.0050	0.00057	1	04/06/18 09:47	04/09/18 18:05	7440-38-2		
Barium	ND	mg/L	0.010	0.00078	1	04/06/18 09:47	04/09/18 18:05	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000050	1	04/06/18 09:47	04/09/18 18:05	7440-41-7		
Boron	0.012J	mg/L	0.040	0.0039	1	04/06/18 09:47	04/09/18 18:05	7440-42-8		
Cadmium	ND	mg/L	0.0010	0.000093	1	04/06/18 09:47	04/09/18 18:05	7440-43-9		
Calcium	ND	mg/L	0.50	0.014	1	04/06/18 09:47	04/09/18 18:05	7440-70-2		
Chromium	ND	mg/L	0.010	0.0016	1	04/06/18 09:47	04/09/18 18:05	7440-47-3		
Cobalt	ND	mg/L	0.010	0.00052	1	04/06/18 09:47	04/09/18 18:05	7440-48-4		
Lead	ND	mg/L	0.0050	0.00027	1	04/06/18 09:47	04/09/18 18:05	7439-92-1		
Lithium	ND	mg/L	0.050	0.00097	1	04/06/18 09:47	04/09/18 18:05	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.0019	1	04/06/18 09:47	04/09/18 18:05	7439-98-7		
Selenium	ND	mg/L	0.010	0.0014	1	04/06/18 09:47	04/09/18 18:05	7782-49-2		
Thallium	ND	mg/L	0.0010	0.00014	1	04/06/18 09:47	04/09/18 18:05	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.000036	1	04/09/18 11:00	04/09/18 15:37	7439-97-6		
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	ND	mg/L	25.0	25.0	1		04/08/18 16:46			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Chloride	ND	mg/L	0.25	0.024	1		04/11/18 13:53	16887-00-6	B	
Fluoride	ND	mg/L	0.30	0.029	1		04/11/18 13:53	16984-48-8		
Sulfate	ND	mg/L	1.0	0.017	1		04/11/18 13:53	14808-79-8		

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ANALYTICAL RESULTS

Project: Plant Yates Phase II

Pace Project No.: 263580

Sample: Dup-5		Lab ID: 263580015		Collected: 04/03/18 00:00		Received: 04/04/18 16:45		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00078	1	04/06/18 09:47	04/09/18 18:44	7440-36-0		
Arsenic	0.0013J	mg/L	0.0050	0.00057	1	04/06/18 09:47	04/09/18 18:44	7440-38-2		
Barium	0.053	mg/L	0.010	0.00078	1	04/06/18 09:47	04/09/18 18:44	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000050	1	04/06/18 09:47	04/09/18 18:44	7440-41-7		
Boron	16.6	mg/L	2.0	0.20	50	04/06/18 09:47	04/09/18 18:50	7440-42-8		
Cadmium	ND	mg/L	0.0010	0.000093	1	04/06/18 09:47	04/09/18 18:50	7440-43-9		
Calcium	109	mg/L	25.0	0.69	50	04/06/18 09:47	04/09/18 18:50	7440-70-2		
Chromium	ND	mg/L	0.010	0.0016	1	04/06/18 09:47	04/09/18 18:44	7440-47-3		
Cobalt	0.015	mg/L	0.010	0.00052	1	04/06/18 09:47	04/09/18 18:44	7440-48-4		
Lead	ND	mg/L	0.0050	0.00027	1	04/06/18 09:47	04/09/18 18:44	7439-92-1		
Lithium	0.028J	mg/L	0.050	0.00097	1	04/06/18 09:47	04/09/18 18:44	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.0019	1	04/06/18 09:47	04/09/18 18:44	7439-98-7		
Selenium	0.28	mg/L	0.010	0.0014	1	04/06/18 09:47	04/09/18 18:44	7782-49-2		
Thallium	ND	mg/L	0.0010	0.00014	1	04/06/18 09:47	04/09/18 18:44	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.000036	1	04/09/18 11:00	04/09/18 15:39	7439-97-6		
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	1050	mg/L	50.0	50.0	1		04/08/18 16:46			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Chloride	4.9	mg/L	0.25	0.024	1		04/11/18 13:11	16887-00-6		
Fluoride	0.67	mg/L	0.30	0.029	1		04/11/18 13:11	16984-48-8		
Sulfate	613	mg/L	50.0	0.85	50		04/11/18 19:33	14808-79-8		

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Yates Phase II
Pace Project No.: 263580

QC Batch: 3949 Analysis Method: EPA 7470A
QC Batch Method: EPA 7470A Analysis Description: 7470 Mercury
Associated Lab Samples: 263580001, 263580003, 263580005, 263580007, 263580009, 263580011, 263580013, 263580015

METHOD BLANK: 19999 Matrix: Water
Associated Lab Samples: 263580001, 263580003, 263580005, 263580007, 263580009, 263580011, 263580013, 263580015

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00050	0.000036	04/09/18 14:27	

LABORATORY CONTROL SAMPLE: 20000

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.0025	0.0025	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 20001 20002

Parameter	Units	263576001 Result	MS		MSD		% Rec	% Rec	% Rec	Limits	RPD	Max RPD	Qual
			Spike Conc.	MS Result	MSD Result	MSD Result							
Mercury	mg/L	ND	0.0025	0.0025	0.0024	0.0024	95	95	75-125	0	20		

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QUALITY CONTROL DATA

Project: Plant Yates Phase II
Pace Project No.: 263580

QC Batch: 3854 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020B MET
Associated Lab Samples: 263580001, 263580003, 263580005, 263580007, 263580009, 263580011, 263580013, 263580015

METHOD BLANK: 19572 Matrix: Water
Associated Lab Samples: 263580001, 263580003, 263580005, 263580007, 263580009, 263580011, 263580013, 263580015

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00078	04/09/18 15:02	
Arsenic	mg/L	ND	0.0050	0.00057	04/09/18 15:02	
Barium	mg/L	ND	0.010	0.00078	04/09/18 15:02	
Beryllium	mg/L	ND	0.0030	0.000050	04/09/18 15:02	
Boron	mg/L	ND	0.040	0.0039	04/09/18 15:02	
Cadmium	mg/L	ND	0.0010	0.000093	04/09/18 15:02	
Calcium	mg/L	ND	0.50	0.014	04/09/18 15:02	
Chromium	mg/L	ND	0.010	0.0016	04/09/18 15:02	
Cobalt	mg/L	ND	0.010	0.00052	04/09/18 15:02	
Lead	mg/L	ND	0.0050	0.00027	04/09/18 15:02	
Lithium	mg/L	ND	0.050	0.00097	04/09/18 15:02	
Molybdenum	mg/L	ND	0.010	0.0019	04/09/18 15:02	
Selenium	mg/L	ND	0.010	0.0014	04/09/18 15:02	
Thallium	mg/L	ND	0.0010	0.00014	04/09/18 15:02	

LABORATORY CONTROL SAMPLE: 19573

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.10	102	80-120	
Arsenic	mg/L	0.1	0.097	97	80-120	
Barium	mg/L	0.1	0.098	98	80-120	
Beryllium	mg/L	0.1	0.11	105	80-120	
Boron	mg/L	1	1.1	107	80-120	
Cadmium	mg/L	0.1	0.10	101	80-120	
Calcium	mg/L	1	0.98	98	80-120	
Chromium	mg/L	0.1	0.11	107	80-120	
Cobalt	mg/L	0.1	0.10	103	80-120	
Lead	mg/L	0.1	0.10	101	80-120	
Lithium	mg/L	0.1	0.11	109	80-120	
Molybdenum	mg/L	0.1	0.10	100	80-120	
Selenium	mg/L	0.1	0.10	100	80-120	
Thallium	mg/L	0.1	0.099	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 19574 19575

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual	
		263576001 Result	Spike Conc.	Spike Conc.	MS Result						MSD Result
Antimony	mg/L	ND	0.1	0.1	0.10	0.10	102	102	75-125	1	20

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QUALITY CONTROL DATA

Project: Plant Yates Phase II

Pace Project No.: 263580

Parameter	Units	19574		19575		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result								
Arsenic	mg/L	0.00069J	0.1	0.1	0.10	0.099	103	99	75-125	4	20		
Barium	mg/L	0.11	0.1	0.1	0.15	0.15	38	35	75-125	2	20	M1	
Beryllium	mg/L	ND	0.1	0.1	0.099	0.095	99	95	75-125	4	20		
Boron	mg/L	0.0088J	1	1	1.0	0.98	100	97	75-125	3	20		
Cadmium	mg/L	ND	0.1	0.1	0.10	0.10	102	101	75-125	1	20		
Calcium	mg/L	56.5	1	1	60.8	59.1	428	260	75-125	3	20		
Chromium	mg/L	ND	0.1	0.1	0.11	0.10	108	101	75-125	6	20		
Cobalt	mg/L	ND	0.1	0.1	0.11	0.10	105	101	75-125	5	20		
Lead	mg/L	ND	0.1	0.1	0.098	0.097	98	96	75-125	2	20		
Lithium	mg/L	0.0030J	0.1	0.1	0.10	0.10	100	98	75-125	1	20		
Molybdenum	mg/L	ND	0.1	0.1	0.10	0.10	105	100	75-125	5	20		
Selenium	mg/L	ND	0.1	0.1	0.10	0.098	105	97	75-125	7	20		
Thallium	mg/L	ND	0.1	0.1	0.099	0.097	99	97	75-125	2	20		

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QUALITY CONTROL DATA

Project: Plant Yates Phase II
Pace Project No.: 263580

QC Batch: 405425 Analysis Method: SM 2540C
QC Batch Method: SM 2540C Analysis Description: 2540C Total Dissolved Solids
Associated Lab Samples: 263580001, 263580003, 263580005, 263580007, 263580009, 263580011, 263580013, 263580015

METHOD BLANK: 2249021 Matrix: Water
Associated Lab Samples: 263580001, 263580003, 263580005, 263580007, 263580009, 263580011, 263580013, 263580015

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	25.0	25.0	04/08/18 16:46	

LABORATORY CONTROL SAMPLE: 2249022

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	250	260	104	90-110	

SAMPLE DUPLICATE: 2249023

Parameter	Units	263579017 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	105	113	7	5	D6

SAMPLE DUPLICATE: 2249024

Parameter	Units	263580011 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	660	644	2	5	

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QUALITY CONTROL DATA

Project: Plant Yates Phase II
Pace Project No.: 263580

QC Batch: 4035 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 263580001, 263580003, 263580005, 263580007, 263580009, 263580011, 263580013, 263580015

METHOD BLANK: 20206 Matrix: Water
Associated Lab Samples: 263580001, 263580003, 263580005, 263580007, 263580009, 263580011, 263580013, 263580015

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.024	04/11/18 06:30	
Fluoride	mg/L	ND	0.30	0.029	04/11/18 06:30	
Sulfate	mg/L	ND	1.0	0.017	04/11/18 06:30	

LABORATORY CONTROL SAMPLE: 20207

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	10	10.5	105	90-110	
Fluoride	mg/L	10	10.4	104	90-110	
Sulfate	mg/L	10	10.8	108	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 20208 20209

Parameter	Units	263580001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	6.9	10	10	16.4	16.4	95	95	90-110	0	15	
Fluoride	mg/L	0.41	10	10	11.7	11.7	113	113	90-110	0	15 M1	
Sulfate	mg/L	872	10	10	409	410	-4630	-4620	90-110	0	15 E,M1	

MATRIX SPIKE SAMPLE: 20210

Parameter	Units	263580009 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	5.9	10	15.6	97	90-110	
Fluoride	mg/L	ND	10	10.5	105	90-110	
Sulfate	mg/L	49.4	10	54.1	47	90-110 E,M1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Phase II

Pace Project No.: 263580

Sample: PZ-38 **Lab ID: 263580002** Collected: 04/03/18 11:05 Received: 04/04/18 16:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.283 ± 0.169 (0.242) C:87% T:NA	pCi/L	04/19/18 08:37	13982-63-3	
Radium-228	EPA 9320	0.443 ± 0.372 (0.741) C:78% T:76%	pCi/L	04/25/18 14:31	15262-20-1	
Total Radium	Total Radium Calculation	0.726 ± 0.541 (0.983)	pCi/L	04/26/18 13:38	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Phase II

Pace Project No.: 263580

Sample: EB-5-4-3-18 **Lab ID: 263580004** Collected: 04/03/18 10:40 Received: 04/04/18 16:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.156 ± 0.151 (0.293) C:91% T:NA	pCi/L	04/19/18 08:38	13982-63-3	
Radium-228	EPA 9320	0.580 ± 0.407 (0.785) C:72% T:79%	pCi/L	04/25/18 14:31	15262-20-1	
Total Radium	Total Radium Calculation	0.736 ± 0.558 (1.08)	pCi/L	04/26/18 13:38	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Phase II

Pace Project No.: 263580

Sample: PZ-37 **Lab ID: 263580006** Collected: 04/03/18 12:20 Received: 04/04/18 16:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.715 ± 0.256 (0.220) C:93% T:NA	pCi/L	04/19/18 08:38	13982-63-3	
Radium-228	EPA 9320	0.750 ± 0.505 (0.968) C:77% T:65%	pCi/L	04/25/18 14:31	15262-20-1	
Total Radium	Total Radium Calculation	1.47 ± 0.761 (1.19)	pCi/L	04/26/18 13:38	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Phase II

Pace Project No.: 263580

Sample: PZ-39 **Lab ID: 263580008** Collected: 04/03/18 10:50 Received: 04/04/18 16:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.277 ± 0.177 (0.274) C:88% T:NA	pCi/L	04/19/18 08:38	13982-63-3	
Radium-228	EPA 9320	0.108 ± 0.368 (0.833) C:76% T:73%	pCi/L	04/25/18 14:31	15262-20-1	
Total Radium	Total Radium Calculation	0.385 ± 0.545 (1.11)	pCi/L	04/26/18 13:38	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Phase II

Pace Project No.: 263580

Sample: PZ-40 **Lab ID: 263580010** Collected: 04/03/18 11:50 Received: 04/04/18 16:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.439 ± 0.216 (0.263) C:86% T:NA	pCi/L	04/19/18 08:38	13982-63-3	
Radium-228	EPA 9320	0.241 ± 0.368 (0.795) C:79% T:72%	pCi/L	04/25/18 14:31	15262-20-1	
Total Radium	Total Radium Calculation	0.680 ± 0.584 (1.06)	pCi/L	01/14/19 16:09	7440-14-4	1A,H1

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Phase II

Pace Project No.: 263580

Sample: PZ-41 **Lab ID: 263580012** Collected: 04/03/18 13:20 Received: 04/04/18 16:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.515 ± 0.215 (0.234) C:89% T:NA	pCi/L	04/19/18 08:38	13982-63-3	
Radium-228	EPA 9320	0.396 ± 0.383 (0.783) C:79% T:74%	pCi/L	04/25/18 14:31	15262-20-1	
Total Radium	Total Radium Calculation	0.911 ± 0.598 (1.02)	pCi/L	01/14/19 16:09	7440-14-4	1A,H1

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Phase II

Pace Project No.: 263580

Sample: FB-5-4-3-18 **Lab ID: 263580014** Collected: 04/03/18 13:00 Received: 04/04/18 16:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.117 ± 0.136 (0.280) C:84% T:NA	pCi/L	04/19/18 08:38	13982-63-3	
Radium-228	EPA 9320	0.759 ± 0.440 (0.794) C:78% T:78%	pCi/L	04/25/18 15:50	15262-20-1	
Total Radium	Total Radium Calculation	0.876 ± 0.576 (1.07)	pCi/L	01/14/19 16:09	7440-14-4	1A,H1

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Phase II

Pace Project No.: 263580

Sample: Dup-5 **Lab ID: 263580016** Collected: 04/03/18 00:00 Received: 04/04/18 16:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.784 ± 0.302 (0.361) C:83% T:NA	pCi/L	04/19/18 08:38	13982-63-3	
Radium-228	EPA 9320	0.856 ± 0.419 (0.711) C:81% T:75%	pCi/L	04/25/18 14:32	15262-20-1	
Total Radium	Total Radium Calculation	1.64 ± 0.721 (1.07)	pCi/L	01/14/19 16:09	7440-14-4	1A,H1

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Yates Phase II

Pace Project No.: 263580

QC Batch: 294195 Analysis Method: EPA 9315

QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium

Associated Lab Samples: 263580002, 263580004, 263580006, 263580008, 263580010, 263580012, 263580014, 263580016

METHOD BLANK: 1440640 Matrix: Water

Associated Lab Samples: 263580002, 263580004, 263580006, 263580008, 263580010, 263580012, 263580014, 263580016

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.202 ± 0.146 (0.231) C:87% T:NA	pCi/L	04/19/18 08:37	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Yates Phase II

Pace Project No.: 263580

QC Batch: 294198

Analysis Method: EPA 9320

QC Batch Method: EPA 9320

Analysis Description: 9320 Radium 228

Associated Lab Samples: 263580002, 263580004, 263580006, 263580008, 263580010, 263580012, 263580014, 263580016

METHOD BLANK: 1440645

Matrix: Water

Associated Lab Samples: 263580002, 263580004, 263580006, 263580008, 263580010, 263580012, 263580014, 263580016

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.0414 ± 0.317 (0.731) C:80% T:78%	pCi/L	04/25/18 11:24	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: Plant Yates Phase II
Pace Project No.: 263580

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval).

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-A Pace Analytical Services - Asheville

PASI-GA Pace Analytical Services - Atlanta, GA

PASI-PA Pace Analytical Services - Greensburg

ANALYTE QUALIFIERS

1A Result corrected per client notification of error in calculation on 1/14/2019.

B Analyte was detected in the associated method blank.

D6 The precision between the sample and sample duplicate exceeded laboratory control limits.

E Analyte concentration exceeded the calibration range. The reported result is estimated.

H1 Analysis conducted outside the EPA method holding time.

M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Yates Phase II
Pace Project No.: 263580

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
263580001	PZ-38	EPA 3005A	3854	EPA 6020B	3993
263580003	EB-5-4-3-18	EPA 3005A	3854	EPA 6020B	3993
263580005	PZ-37	EPA 3005A	3854	EPA 6020B	3993
263580007	PZ-39	EPA 3005A	3854	EPA 6020B	3993
263580009	PZ-40	EPA 3005A	3854	EPA 6020B	3993
263580011	PZ-41	EPA 3005A	3854	EPA 6020B	3993
263580013	FB-5-4-3-18	EPA 3005A	3854	EPA 6020B	3993
263580015	Dup-5	EPA 3005A	3854	EPA 6020B	3993
263580001	PZ-38	EPA 7470A	3949	EPA 7470A	3989
263580003	EB-5-4-3-18	EPA 7470A	3949	EPA 7470A	3989
263580005	PZ-37	EPA 7470A	3949	EPA 7470A	3989
263580007	PZ-39	EPA 7470A	3949	EPA 7470A	3989
263580009	PZ-40	EPA 7470A	3949	EPA 7470A	3989
263580011	PZ-41	EPA 7470A	3949	EPA 7470A	3989
263580013	FB-5-4-3-18	EPA 7470A	3949	EPA 7470A	3989
263580015	Dup-5	EPA 7470A	3949	EPA 7470A	3989
263580002	PZ-38	EPA 9315	294195		
263580004	EB-5-4-3-18	EPA 9315	294195		
263580006	PZ-37	EPA 9315	294195		
263580008	PZ-39	EPA 9315	294195		
263580010	PZ-40	EPA 9315	294195		
263580012	PZ-41	EPA 9315	294195		
263580014	FB-5-4-3-18	EPA 9315	294195		
263580016	Dup-5	EPA 9315	294195		
263580002	PZ-38	EPA 9320	294198		
263580004	EB-5-4-3-18	EPA 9320	294198		
263580006	PZ-37	EPA 9320	294198		
263580008	PZ-39	EPA 9320	294198		
263580010	PZ-40	EPA 9320	294198		
263580012	PZ-41	EPA 9320	294198		
263580014	FB-5-4-3-18	EPA 9320	294198		
263580016	Dup-5	EPA 9320	294198		
263580002	PZ-38	Total Radium Calculation	296147		
263580004	EB-5-4-3-18	Total Radium Calculation	296147		
263580006	PZ-37	Total Radium Calculation	296147		
263580008	PZ-39	Total Radium Calculation	296147		
263580010	PZ-40	Total Radium Calculation	326879		
263580012	PZ-41	Total Radium Calculation	326879		
263580014	FB-5-4-3-18	Total Radium Calculation	326879		
263580016	Dup-5	Total Radium Calculation	326879		
263580001	PZ-38	SM 2540C	405425		
263580003	EB-5-4-3-18	SM 2540C	405425		
263580005	PZ-37	SM 2540C	405425		
263580007	PZ-39	SM 2540C	405425		
263580009	PZ-40	SM 2540C	405425		
263580011	PZ-41	SM 2540C	405425		

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Yates Phase II
Pace Project No.: 263580

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
263580013	FB-5-4-3-18	SM 2540C	405425		
263580015	Dup-5	SM 2540C	405425		
263580001	PZ-38	EPA 300.0	4035		
263580003	EB-5-4-3-18	EPA 300.0	4035		
263580005	PZ-37	EPA 300.0	4035		
263580007	PZ-39	EPA 300.0	4035		
263580009	PZ-40	EPA 300.0	4035		
263580011	PZ-41	EPA 300.0	4035		
263580013	FB-5-4-3-18	EPA 300.0	4035		
263580015	Dup-5	EPA 300.0	4035		

REPORT OF LABORATORY ANALYSIS

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CHAIN OF CUSTODY RECORD

Pace Analytical Services, Inc.
 110 TECHNOLOGY PARKWAY, PEACHTREE CORNERS, GA 30092
 (770) 734-4200 : FAX (770) 734-4201 : www.asi-lab.com

PAGE: 1 OF 1

CLIENT NAME:
 Georgia Power

CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER:
 241 Ralph McGill Blvd SE B10185
 Atlanta, GA 30308
 404-505-7239

REPORT TO:
 Joju Abraham

CC: Maria Padilla
 Heath McCorle

REQUESTED COMPLETION DATE:
 laburch@southernco.com

PROJECT NAME/STATE:
 Plant Yates - Additional Phase 2 Facility Wells

PROJECT #:
 Phase 2 CCR

CONTAINER TYPE	PRESERVATION	ANALYSIS REQUESTED										REMARKS/ADDITIONAL INFORMATION	
		P	P	P	P	P	P	P	P	P	P		
P - PLASTIC	1 - HCl, ≤6°C												
A - AMBER GLASS	2 - H ₂ SO ₄ , ≤6°C												
G - CLEAR GLASS	3 - HNO ₃												
V - VOA VIAL	4 - NaOH, ≤6°C												
S - STERILE	5 - NaOH/ZnAc, ≤6°C												
O - OTHER	6 - Na ₂ S ₂ O ₃ , ≤6°C												
	7 - ≤6°C not frozen												

CONTAINER TYPE	PRESERVATION	ANALYSIS REQUESTED										REMARKS/ADDITIONAL INFORMATION	
		P	P	P	P	P	P	P	P	P	P		
DW - DRINKING WATER	S - SOIL												
WW - WASTEWATER	SL - SLUDGE												
GW - GROUNDWATER	SD - SOLID												
SW - SURFACE WATER	A - AIR												
ST - STORM WATER	L - LIQUID												
W - WATER	P - PRODUCT												

WO#: 263580



263580

Collection DATE	Collection TIME	MATRIX CODE	C O R M A B	SAMPLE IDENTIFICATION	Relinquished By	DATE/TIME
4-3-18	1105	GW	X	PZ-38	[Signature]	4-4-18 1645
4-3-18	1040	W	X	EB-5-4-3-18	[Signature]	4-4-18 1645
4-3-18	1220	GW	X	PZ-37	[Signature]	4-4-18 1645
4-3-18	1050	GW	X	PZ-39	[Signature]	4-4-18 1645
4-3-18	1150	GW	X	PZ-40	[Signature]	4-4-18 1645
4-3-18	1320	GW	X	PZ-41	[Signature]	4-4-18 1645
4-3-18	1300	W	X	FB-5-4-3-18	[Signature]	4-4-18 1645
4-3-18	---	GW	X	DUP-5	[Signature]	4-4-18 1645

SAMPLED BY AND TITLE:
 J. Beaufort

DATE/TIME:
 4-4-18 1500

RECEIVED BY:
 [Signature]

DATE/TIME:
 4-4-18 1645

RECEIVED BY LAB:
 [Signature]

DATE/TIME:
 4-4-18 1645

TEMPERATURE:
 [Signature]

LAB #:
 1645

ENTERED INTO LIMS:
 [Signature]

TRACKING #:
 [Signature]

CLIENT:
 Georgia Power

COURIER:
 [Signature]

OTHER:
 FS

Sample Condition Upon Receipt



Client Name: GVA Power

Project # _____

WO#: 263580

Courier: Fed Ex UPS USPS Client Commercial Pace Other

PM: **BM** Due Date: **04/11/18**

Tracking #: _____

Custody Seal on Cooler/Box Present: yes no Seals intact: yes no

CLIENT: **GAPower-CCR**

Packing Material: Bubble Wrap Bubble Bags None Other

Thermometer Used 83

Type of Ice: Wet Blue None Samples on ice, cooling process has begun

Cooler Temperature 0.1

Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: 4/4/18 MR

Temp should be above freezing to 8°C

Comments:

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Pace Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes date/time/ID/Analysis Matrix: <u>GVA</u>		
All containers needing preservation have been checked.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
exceptions: VOA, coliform, TOC, O&G, W-DRO (water)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Initial when completed
		Lot # of added preservative
Samples checked for dechlorination:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	16.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution:

Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____

Date: _____

Note: Whenever there is a discrepancy affecting North Carolina compliance samples a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers).

Quality Control Sample Performance Assessment



Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-226
Analyst: LAL
Date: 4/16/2018
Worklist: 40959
Matrix: DW

Method Blank Assessment

MB Sample ID: 1440640
MB concentration: 0.202
MB Counting Uncertainty: 0.143
MB MDC: 0.231
MB Numerical Performance Indicator: N/A
MB Status vs Numerical Indicator: Pass

Laboratory Control Sample Assessment

LCSID (Y or N)?	N
LCS40959	LCS40959
Count Date:	4/19/2018
Spike I.D.:	17-030
Spike Concentration (pCi/mL):	80.172
Volume Used (mL):	0.10
Aliquot Volume (L, g, F):	0.522
Target Conc. (pCi/L, g, F):	15.367
Uncertainty (Calculated):	1.416
Result (pCi/L, g, F):	13.000
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.917
Numerical Performance Indicator:	-2.75
Percent Recovery:	84.60%
Status vs Numerical Indicator:	N/A
Status vs Recovery:	Pass

Duplicate Sample Assessment

Sample I.D.: 263585012
Duplicate Sample I.D.: 263585012DUP
Sample Result (pCi/L, g, F): 0.515
Sample Result Counting Uncertainty (pCi/L, g, F): 0.218
Sample Duplicate Result (pCi/L, g, F): 0.453
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F): 0.220
Are sample and/or duplicate results below MDC? See Below ##
Duplicate Numerical Performance Indicator: 0.392
Duplicate RPD: 12.82%
Duplicate Status vs Numerical Indicator: N/A
Duplicate Status vs RPD: Pass

Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
263585012
263585012DUP

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

Sample Matrix Spike Control Assessment

Sample Collection Date:
Sample I.D.:
Sample MS I.D.:
Sample MSD I.D.:
Spike I.D.:

MS/MSD Decay Corrected Spike Concentration (pCi/mL):
Spike Volume Used in MS (mL):
Spike Volume Used in MSD (mL):
MS Aliquot (L, g, F):
MS Target Conc. (pCi/L, g, F):
MSD Aliquot (L, g, F):
MSD Target Conc. (pCi/L, g, F):
Spike uncertainty (calculated):

Sample Result Counting Uncertainty (pCi/L, g, F):
Sample Matrix Spike Result:
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):
Sample Matrix Spike Duplicate Result:
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):
MS Numerical Performance Indicator:
MSD Numerical Performance Indicator:
MS Percent Recovery:
MSD Percent Recovery:
MS Status vs Numerical Indicator:
MSD Status vs Numerical Indicator:
MS Status vs Recovery:
MSD Status vs Recovery:

Matrix Spike/Matrix Spike Duplicate Sample Assessment

Sample I.D.:
Sample MS I.D.:
Sample MSD I.D.:
Sample Matrix Spike Result:
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):
Sample Matrix Spike Duplicate Result:
Sample Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):
Duplicate Numerical Performance Indicator:
MS/MSD Duplicate RPD:
MS/MSD Duplicate Status vs Numerical Indicator:
MS/MSD Duplicate Status vs RPD:

Handwritten signature/initials

Handwritten date: 4/19/18

Quality Control Sample Performance Assessment



Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-228
Analyst: JLLW
Date: 4/16/2018
Worklist: 40961
Matrix: DW

Method Blank Assessment	
MB Sample ID	1440645
MB concentration:	0.041
M/B Counting Uncertainty:	0.317
MB MDC:	0.731
MB Numerical Performance Indicator:	0.26
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment		LCS (Y or N)?
LCS40961		
Count Date:	4/25/2018	Y
Spike I.D.:	17-033	17-033
Spike Concentration (pCi/mL):	21.838	21.838
Volume Used (mL):	0.20	0.20
Aliquot Volume (L, g, F):	0.809	0.824
Target Conc. (pCi/L, g, F):	5.401	5.298
Uncertainty (Calculated):	0.389	0.381
Result (pCi/L, g, F):	-7.075	5.380
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.752	0.671
Numerical Performance Indicator:	3.88	0.21
Percent Recovery:	130.99%	101.54%
Status vs Numerical Indicator:	N/A	N/A
Status vs Recovery:	Pass	Pass

Duplicate Sample Assessment	
Sample I.D.:	LCS40961
Duplicate Sample I.D.:	LCS40961
Sample Result (pCi/L, g, F):	7.075
Sample Duplicate Result (pCi/L, g, F):	0.752
Sample Duplicate Counting Uncertainty (pCi/L, g, F):	5.380
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.671
Are sample and/or duplicate results below MDC?	NO
Duplicate Numerical Performance Indicator:	3.296
Duplicate (Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	25.32%
Duplicate Status vs Numerical Indicator:	N/A
Duplicate Status vs RPD:	Pass

Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

Handwritten notes:
27-06-18
DW-14-18
DW-14-18

Sample Matrix Spike Control Assessment	
Sample Collection Date:	
Sample ID:	
Sample MS I.D.:	
Sample MSD I.D.:	
Spike I.D.:	
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	
Spike Volume Used in MS (mL):	
Spike Volume Used in MSD (mL):	
MS Aliquot (L, g, F):	
MS Target Conc. (pCi/L, g, F):	
MSD Aliquot (L, g, F):	
MSD Target Conc. (pCi/L, g, F):	
Spike uncertainty (calculated):	
Sample Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
MS Numerical Performance Indicator:	
MSD Numerical Performance Indicator:	
MS Percent Recovery:	
MSD Percent Recovery:	
MS Status vs Numerical Indicator:	
MSD Status vs Numerical Indicator:	
MS Status vs Recovery:	
MSD Status vs Recovery:	

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.:	
Sample MS I.D.:	
Sample MSD I.D.:	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
Duplicate Numerical Performance Indicator:	
(Based on the Percent Recoveries) MS/MSD Duplicate RPD:	
MS/MSD Duplicate Status vs Numerical Indicator:	
MS/MSD Duplicate Status vs RPD:	

Product Name: Low-Flow System

Date: 2018-04-04 11:53:35

Project Information:

Operator Name J Berisford
Company Name Atlantic Coast Consulting
Project Name Plant Yates- Phase 2
Site Name Plant Yates
Latitude 33° 27' 11.35"
Longitude -84° -53' -55.31"
Sonde SN 466058
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED Bladder
Tubing Type poly
Tubing Diameter .375 in
Tubing Length 60 ft

Pump placement from TOC 55 ft

Well Information:

Well ID YGWC-42
Well diameter 2 in
Well Total Depth 60 ft
Screen Length 10 ft
Depth to Water 27.89 ft

Pumping Information:

Final Pumping Rate 140 mL/min
Total System Volume 1.788119 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 21.72 in
Total Volume Pumped 11.2 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%	+/- 0		+/- 10%	+/- 10
Last 5	11:30:12	4199.94	16.83	5.81	1661.63	7.79	29.70	0.66	110.23
Last 5	11:35:12	4499.93	16.80	5.80	1682.21	6.92	29.70	0.67	111.04
Last 5	11:40:12	4799.92	16.83	5.79	1704.91	5.69	29.70	0.68	111.65
Last 5	11:45:12	5099.93	16.92	5.78	1725.36	4.41	29.70	0.69	112.33
Last 5	11:50:12	5399.91	16.87	5.93	4.24	--	--	8.78	104.26
Variance 0			0.03	-0.01	22.70			0.00	0.62
Variance 1			0.09	-0.01	20.44			0.01	0.68
Variance 2			-0.05	0.15	-1721.11			8.09	-8.07

Notes

Sample time-1145,cloudy

Grab Samples

Product Name: Low-Flow System

Date: 2018-04-04 09:40:58

Project Information:

Operator Name J Berisford
Company Name Atlantic Coast Consulting
Project Name Plant Yates- Phase 2
Site Name Plant Yates
Latitude 33° 27' 18.17"
Longitude -84° -53' -56.61"
Sonde SN 466058
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED Bladder
Tubing Type poly
Tubing Diameter .375 in
Tubing Length 80 ft

Pump placement from TOC 75 ft

Well Information:

Well ID YGWC-43
Well diameter 2 in
Well Total Depth 80 ft
Screen Length 10 ft
Depth to Water 15.87 ft

Pumping Information:

Final Pumping Rate 325 mL/min
Total System Volume 2.222492 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 1.56 in
Total Volume Pumped 9.75 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 10
Last 5	09:20:04	600.02	16.57	6.48	419.34	10.10	16.20	0.09	94.76
Last 5	09:25:04	900.01	16.52	6.48	420.10	5.86	16.20	0.09	88.97
Last 5	09:30:04	1200.00	16.47	6.46	422.68	4.42	16.20	0.08	84.42
Last 5	09:35:04	1500.00	16.43	6.45	423.61	4.39	16.20	0.09	80.41
Last 5	09:40:04	1799.99	16.46	6.41	425.55	4.25	16.20	0.09	77.12
Variance 0			-0.05	-0.02	2.58			-0.01	-4.55
Variance 1			-0.04	-0.01	0.93			0.00	-4.01
Variance 2			0.03	-0.03	1.94			0.01	-3.29

Notes

Cloudy, sample time-0940, Dup-6 here

Grab Samples

April 30, 2018

Joju Abraham
Georgia Power - Coal Combustion Residuals
2480 Maner Road
Atlanta, GA 30339

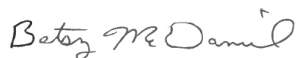
RE: Project: Plant Yates Phase II
Pace Project No.: 263585

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on April 04, 2018. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Betsy McDaniel
betsy.mcdaniel@pacelabs.com
(770)734-4200
Project Manager

Enclosures

cc: Maria Padilla, Georgia Power
Chris Parker, Atlantic Coast Consulting
Evan Perry, Atlantic Coast Consulting
Lauren Petty, Southern Company Services, Inc.



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: Plant Yates Phase II

Pace Project No.: 263585

Atlanta Certification IDs

110 Technology Parkway Peachtree Corners, GA 30092

Florida DOH Certification #: E87315

Georgia DW Inorganics Certification #: 812

Georgia DW Microbiology Certification #: 812

North Carolina Certification #: 381

South Carolina Certification #: 98011001

Texas Certification #: T104704397-08-TX

Virginia Certification #: 460204

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601

ANAB DOD-ELAP Rad Accreditation #: L2417

Alabama Certification #: 41590

Arizona Certification #: AZ0734

Arkansas Certification

California Certification #: 04222CA

Colorado Certification #: PA01547

Connecticut Certification #: PH-0694

Delaware Certification

EPA Region 4 DW Rad

Florida/TNI Certification #: E87683

Georgia Certification #: C040

Guam Certification

Hawaii Certification

Idaho Certification

Illinois Certification

Indiana Certification

Iowa Certification #: 391

Kansas/TNI Certification #: E-10358

Kentucky Certification #: KY90133

KY WW Permit #: KY0098221

KY WW Permit #: KY0000221

Louisiana DHH/TNI Certification #: LA180012

Louisiana DEQ/TNI Certification #: 4086

Maine Certification #: 2017020

Maryland Certification #: 308

Massachusetts Certification #: M-PA1457

Michigan/PADEP Certification #: 9991

Missouri Certification #: 235

Montana Certification #: Cert0082

Nebraska Certification #: NE-OS-29-14

Nevada Certification #: PA014572018-1

New Hampshire/TNI Certification #: 297617

New Jersey/TNI Certification #: PA051

New Mexico Certification #: PA01457

New York/TNI Certification #: 10888

North Carolina Certification #: 42706

North Dakota Certification #: R-190

Ohio EPA Rad Approval: #41249

Oregon/TNI Certification #: PA200002-010

Pennsylvania/TNI Certification #: 65-00282

Puerto Rico Certification #: PA01457

Rhode Island Certification #: 65-00282

South Dakota Certification

Tennessee Certification #: 02867

Texas/TNI Certification #: T104704188-17-3

Utah/TNI Certification #: PA014572017-9

USDA Soil Permit #: P330-17-00091

Vermont Dept. of Health: ID# VT-0282

Virgin Island/PADEP Certification

Virginia/VELAP Certification #: 9526

Washington Certification #: C868

West Virginia DEP Certification #: 143

West Virginia DHHR Certification #: 9964C

Wisconsin Approve List for Rad

Wyoming Certification #: 8TMS-L

Asheville Certification IDs

2225 Riverside Drive, Asheville, NC 28804

Florida/NELAP Certification #: E87648

Massachusetts Certification #: M-NC030

North Carolina Drinking Water Certification #: 37712

North Carolina Wastewater Certification #: 40

South Carolina Certification #: 99030001

Virginia/VELAP Certification #: 460222

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: Plant Yates Phase II

Pace Project No.: 263585

Lab ID	Sample ID	Matrix	Date Collected	Date Received
263585001	YGWA-47	Water	04/02/18 14:25	04/04/18 16:45
263585002	YGWA-47	Water	04/02/18 14:25	04/04/18 16:45
263585003	YGWC-45	Water	04/03/18 14:05	04/04/18 16:45
263585004	YGWC-45	Water	04/03/18 14:05	04/04/18 16:45
263585005	YGWC-42	Water	04/04/18 11:45	04/04/18 16:45
263585006	YGWC-42	Water	04/04/18 11:45	04/04/18 16:45
263585007	YGWC-43	Water	04/04/18 09:40	04/04/18 16:45
263585008	YGWC-43	Water	04/04/18 09:40	04/04/18 16:45
263585009	YGWC-44	Water	04/04/18 12:05	04/04/18 16:45
263585010	YGWC-44	Water	04/04/18 12:05	04/04/18 16:45
263585011	YGWC-46	Water	04/04/18 15:55	04/04/18 16:45
263585012	YGWC-46	Water	04/04/18 15:55	04/04/18 16:45
263585013	YGWC-49	Water	04/04/18 12:50	04/04/18 16:45
263585014	YGWC-49	Water	04/04/18 12:50	04/04/18 16:45
263585015	EB-6-4-4-18	Water	04/04/18 11:30	04/04/18 16:45
263585016	EB-6-4-4-18	Water	04/04/18 11:30	04/04/18 16:45
263585017	FB-6-4-4-18	Water	04/04/18 12:30	04/04/18 16:45
263585018	FB-6-4-4-18	Water	04/04/18 12:30	04/04/18 16:45
263585019	Dup-6	Water	04/04/18 00:00	04/04/18 16:45
263585020	Dup-6	Water	04/04/18 00:00	04/04/18 16:45

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: Plant Yates Phase II

Pace Project No.: 263585

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
263585001	YGWA-47	EPA 6020B	CSW	14	PASI-GA
		EPA 7470A	AAP	1	PASI-GA
		SM 2540C	MVC	1	PASI-A
		EPA 300.0	RLC	3	PASI-GA
263585002	YGWA-47	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
263585003	YGWC-45	EPA 6020B	CSW	14	PASI-GA
		EPA 7470A	AAP	1	PASI-GA
		SM 2540C	NAL	1	PASI-A
		EPA 300.0	RLC	3	PASI-GA
263585004	YGWC-45	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
263585005	YGWC-42	EPA 6020B	CSW	14	PASI-GA
		EPA 7470A	AAP	1	PASI-GA
		SM 2540C	EJJ	1	PASI-A
		EPA 300.0	RLC	3	PASI-GA
263585006	YGWC-42	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
263585007	YGWC-43	EPA 6020B	CSW	14	PASI-GA
		EPA 7470A	AAP	1	PASI-GA
		SM 2540C	EJJ	1	PASI-A
		EPA 300.0	RLC	3	PASI-GA
263585008	YGWC-43	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
263585009	YGWC-44	EPA 6020B	CSW	14	PASI-GA
		EPA 7470A	AAP	1	PASI-GA
		SM 2540C	EJJ	1	PASI-A
		EPA 300.0	RLC	3	PASI-GA
263585010	YGWC-44	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
263585011	YGWC-46	EPA 6020B	CSW	14	PASI-GA
		EPA 7470A	AAP	1	PASI-GA

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: Plant Yates Phase II
Pace Project No.: 263585

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
263585012	YGWC-46	SM 2540C	EJJ	1	PASI-A
		EPA 300.0	RLC	3	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
263585013	YGWC-49	Total Radium Calculation	CMC	1	PASI-PA
		EPA 6020B	CSW	14	PASI-GA
		EPA 7470A	AAP	1	PASI-GA
		SM 2540C	EJJ	1	PASI-A
263585014	YGWC-49	EPA 300.0	RLC	3	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
263585015	EB-6-4-4-18	EPA 6020B	CSW	14	PASI-GA
		EPA 7470A	AAP	1	PASI-GA
		SM 2540C	EJJ	1	PASI-A
		EPA 300.0	RLC	3	PASI-GA
263585016	EB-6-4-4-18	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		EPA 6020B	CSW	14	PASI-GA
263585017	FB-6-4-4-18	EPA 7470A	AAP	1	PASI-GA
		SM 2540C	EJJ	1	PASI-A
		EPA 300.0	MWB	3	PASI-GA
		EPA 9315	LAL	1	PASI-PA
263585018	FB-6-4-4-18	EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		EPA 6020B	CSW	14	PASI-GA
		EPA 7470A	AAP	1	PASI-GA
263585019	Dup-6	SM 2540C	EJJ	1	PASI-A
		EPA 300.0	MWB, RLC	3	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
263585020	Dup-6	Total Radium Calculation	CMC	1	PASI-PA

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Yates Phase II

Pace Project No.: 263585

Sample: YGWA-47		Lab ID: 263585001		Collected: 04/02/18 14:25		Received: 04/04/18 16:45		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Antimony	ND	mg/L	0.0030	0.00078	1	04/06/18 09:09	04/10/18 16:19	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	04/06/18 09:09	04/10/18 16:19	7440-38-2	
Barium	0.022	mg/L	0.010	0.00078	1	04/06/18 09:09	04/10/18 16:19	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	04/06/18 09:09	04/10/18 16:19	7440-41-7	
Boron	0.013J	mg/L	0.040	0.0039	1	04/06/18 09:09	04/10/18 16:19	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000093	1	04/06/18 09:09	04/10/18 16:19	7440-43-9	
Calcium	ND	mg/L	25.0	0.69	50	04/06/18 09:09	04/10/18 16:24	7440-70-2	D3,M6
Chromium	ND	mg/L	0.010	0.0016	1	04/06/18 09:09	04/10/18 16:19	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	04/06/18 09:09	04/10/18 16:19	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	04/06/18 09:09	04/10/18 16:19	7439-92-1	
Lithium	0.0045J	mg/L	0.050	0.00097	1	04/06/18 09:09	04/10/18 16:19	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	04/06/18 09:09	04/10/18 16:19	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	04/06/18 09:09	04/10/18 16:19	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	04/06/18 09:09	04/10/18 16:19	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00050	0.000036	1	04/10/18 11:35	04/10/18 15:13	7439-97-6	
2540C Total Dissolved Solids		Analytical Method: SM 2540C							
Total Dissolved Solids	192	mg/L	25.0	25.0	1		04/06/18 21:30		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Chloride	4.8	mg/L	0.25	0.024	1		04/11/18 13:10	16887-00-6	
Fluoride	ND	mg/L	0.30	0.029	1		04/11/18 13:10	16984-48-8	
Sulfate	88.8	mg/L	10.0	0.17	10		04/13/18 13:51	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Yates Phase II
Pace Project No.: 263585

Sample: YGWC-45		Lab ID: 263585003		Collected: 04/03/18 14:05		Received: 04/04/18 16:45		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00078	1	04/06/18 09:09	04/10/18 17:13	7440-36-0		
Arsenic	0.00061J	mg/L	0.0050	0.00057	1	04/06/18 09:09	04/10/18 17:13	7440-38-2		
Barium	0.068	mg/L	0.010	0.00078	1	04/06/18 09:09	04/10/18 17:13	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000050	1	04/06/18 09:09	04/10/18 17:13	7440-41-7		
Boron	0.35	mg/L	0.040	0.0039	1	04/06/18 09:09	04/10/18 17:13	7440-42-8		
Cadmium	ND	mg/L	0.0010	0.000093	1	04/06/18 09:09	04/10/18 17:13	7440-43-9		
Calcium	50.6	mg/L	25.0	0.69	50	04/06/18 09:09	04/10/18 17:19	7440-70-2		
Chromium	ND	mg/L	0.010	0.0016	1	04/06/18 09:09	04/10/18 17:13	7440-47-3		
Cobalt	ND	mg/L	0.010	0.00052	1	04/06/18 09:09	04/10/18 17:13	7440-48-4		
Lead	ND	mg/L	0.0050	0.00027	1	04/06/18 09:09	04/10/18 17:13	7439-92-1		
Lithium	0.014J	mg/L	0.050	0.00097	1	04/06/18 09:09	04/10/18 17:13	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.0019	1	04/06/18 09:09	04/10/18 17:13	7439-98-7		
Selenium	ND	mg/L	0.010	0.0014	1	04/06/18 09:09	04/10/18 17:13	7782-49-2		
Thallium	ND	mg/L	0.0010	0.00014	1	04/06/18 09:09	04/10/18 17:13	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.000036	1	04/10/18 11:35	04/10/18 15:15	7439-97-6		
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	418	mg/L	25.0	25.0	1		04/08/18 16:46			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Chloride	4.6	mg/L	0.25	0.024	1		04/11/18 14:14	16887-00-6		
Fluoride	ND	mg/L	0.30	0.029	1		04/11/18 14:14	16984-48-8		
Sulfate	183	mg/L	10.0	0.17	10		04/13/18 14:14	14808-79-8		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Yates Phase II

Pace Project No.: 263585

Sample: YGWC-42		Lab ID: 263585005		Collected: 04/04/18 11:45		Received: 04/04/18 16:45		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00078	1	04/06/18 09:09	04/10/18 17:25	7440-36-0		
Arsenic	0.0023J	mg/L	0.0050	0.00057	1	04/06/18 09:09	04/10/18 17:25	7440-38-2		
Barium	0.041	mg/L	0.010	0.00078	1	04/06/18 09:09	04/10/18 17:25	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000050	1	04/06/18 09:09	04/10/18 17:25	7440-41-7		
Boron	22.7	mg/L	2.0	0.20	50	04/06/18 09:09	04/10/18 17:31	7440-42-8		
Cadmium	ND	mg/L	0.0010	0.000093	1	04/06/18 09:09	04/10/18 17:25	7440-43-9		
Calcium	137	mg/L	25.0	0.69	50	04/06/18 09:09	04/10/18 17:31	7440-70-2		
Chromium	ND	mg/L	0.010	0.0016	1	04/06/18 09:09	04/10/18 17:25	7440-47-3		
Cobalt	ND	mg/L	0.010	0.00052	1	04/06/18 09:09	04/10/18 17:25	7440-48-4		
Lead	ND	mg/L	0.0050	0.00027	1	04/06/18 09:09	04/10/18 17:25	7439-92-1		
Lithium	0.037J	mg/L	0.050	0.00097	1	04/06/18 09:09	04/10/18 17:25	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.0019	1	04/06/18 09:09	04/10/18 17:25	7439-98-7		
Selenium	0.055	mg/L	0.010	0.0014	1	04/06/18 09:09	04/10/18 17:25	7782-49-2		
Thallium	ND	mg/L	0.0010	0.00014	1	04/06/18 09:09	04/10/18 17:25	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.000036	1	04/10/18 11:35	04/10/18 15:18	7439-97-6		
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	1520	mg/L	50.0	50.0	1		04/10/18 18:23			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Chloride	3.7	mg/L	0.25	0.024	1		04/11/18 14:35	16887-00-6		
Fluoride	ND	mg/L	0.30	0.029	1		04/11/18 14:35	16984-48-8		
Sulfate	1020	mg/L	50.0	0.85	50		04/13/18 14:36	14808-79-8		

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ANALYTICAL RESULTS

Project: Plant Yates Phase II

Pace Project No.: 263585

Sample: YGWC-43		Lab ID: 263585007		Collected: 04/04/18 09:40		Received: 04/04/18 16:45		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00078	1	04/06/18 09:09	04/10/18 17:36	7440-36-0		
Arsenic	ND	mg/L	0.0050	0.00057	1	04/06/18 09:09	04/10/18 17:36	7440-38-2		
Barium	0.024	mg/L	0.010	0.00078	1	04/06/18 09:09	04/10/18 17:36	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000050	1	04/06/18 09:09	04/10/18 17:36	7440-41-7		
Boron	1.2	mg/L	0.040	0.0039	1	04/06/18 09:09	04/10/18 17:36	7440-42-8		
Cadmium	ND	mg/L	0.0010	0.000093	1	04/06/18 09:09	04/10/18 17:36	7440-43-9		
Calcium	8.6	mg/L	2.5	0.069	5	04/06/18 09:09	04/11/18 16:40	7440-70-2		
Chromium	ND	mg/L	0.010	0.0016	1	04/06/18 09:09	04/10/18 17:36	7440-47-3		
Cobalt	ND	mg/L	0.010	0.00052	1	04/06/18 09:09	04/10/18 17:36	7440-48-4		
Lead	ND	mg/L	0.0050	0.00027	1	04/06/18 09:09	04/10/18 17:36	7439-92-1		
Lithium	0.016J	mg/L	0.050	0.00097	1	04/06/18 09:09	04/10/18 17:36	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.0019	1	04/06/18 09:09	04/10/18 17:36	7439-98-7		
Selenium	ND	mg/L	0.010	0.0014	1	04/06/18 09:09	04/10/18 17:36	7782-49-2		
Thallium	ND	mg/L	0.0010	0.00014	1	04/06/18 09:09	04/10/18 17:36	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.000036	1	04/10/18 11:35	04/10/18 15:32	7439-97-6		
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	292	mg/L	25.0	25.0	1		04/10/18 18:23			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Chloride	1.8	mg/L	0.25	0.024	1		04/11/18 14:56	16887-00-6		
Fluoride	ND	mg/L	0.30	0.029	1		04/11/18 14:56	16984-48-8		
Sulfate	160	mg/L	10.0	0.17	10		04/13/18 14:58	14808-79-8		

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ANALYTICAL RESULTS

Project: Plant Yates Phase II

Pace Project No.: 263585

Sample: YGWC-44		Lab ID: 263585009		Collected: 04/04/18 12:05		Received: 04/04/18 16:45		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00078	1	04/06/18 09:09	04/10/18 17:48	7440-36-0		
Arsenic	ND	mg/L	0.0050	0.00057	1	04/06/18 09:09	04/10/18 17:48	7440-38-2		
Barium	0.12	mg/L	0.010	0.00078	1	04/06/18 09:09	04/10/18 17:48	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000050	1	04/06/18 09:09	04/10/18 17:48	7440-41-7		
Boron	0.66	mg/L	0.040	0.0039	1	04/06/18 09:09	04/10/18 17:48	7440-42-8		
Cadmium	ND	mg/L	0.0010	0.000093	1	04/06/18 09:09	04/10/18 17:48	7440-43-9		
Calcium	30.1	mg/L	25.0	0.69	50	04/06/18 09:09	04/10/18 17:54	7440-70-2		
Chromium	ND	mg/L	0.010	0.0016	1	04/06/18 09:09	04/10/18 17:48	7440-47-3		
Cobalt	ND	mg/L	0.010	0.00052	1	04/06/18 09:09	04/10/18 17:48	7440-48-4		
Lead	ND	mg/L	0.0050	0.00027	1	04/06/18 09:09	04/10/18 17:48	7439-92-1		
Lithium	0.014J	mg/L	0.050	0.00097	1	04/06/18 09:09	04/10/18 17:48	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.0019	1	04/06/18 09:09	04/10/18 17:48	7439-98-7		
Selenium	ND	mg/L	0.010	0.0014	1	04/06/18 09:09	04/10/18 17:48	7782-49-2		
Thallium	ND	mg/L	0.0010	0.00014	1	04/06/18 09:09	04/10/18 17:48	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.000036	1	04/10/18 11:35	04/10/18 15:35	7439-97-6		
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	313	mg/L	25.0	25.0	1		04/10/18 18:23			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Chloride	13.4	mg/L	0.25	0.024	1		04/11/18 15:18	16887-00-6		
Fluoride	ND	mg/L	0.30	0.029	1		04/11/18 15:18	16984-48-8		
Sulfate	137	mg/L	10.0	0.17	10		04/13/18 15:21	14808-79-8		

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ANALYTICAL RESULTS

Project: Plant Yates Phase II
Pace Project No.: 263585

Sample: YGWC-46		Lab ID: 263585011		Collected: 04/04/18 15:55		Received: 04/04/18 16:45		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00078	1	04/06/18 09:09	04/10/18 17:59	7440-36-0		
Arsenic	0.00087J	mg/L	0.0050	0.00057	1	04/06/18 09:09	04/10/18 17:59	7440-38-2		
Barium	0.025	mg/L	0.010	0.00078	1	04/06/18 09:09	04/10/18 17:59	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000050	1	04/06/18 09:09	04/10/18 17:59	7440-41-7		
Boron	1.2	mg/L	0.040	0.0039	1	04/06/18 09:09	04/10/18 17:59	7440-42-8		
Cadmium	ND	mg/L	0.0010	0.000093	1	04/06/18 09:09	04/10/18 17:59	7440-43-9		
Calcium	51.9	mg/L	25.0	0.69	50	04/06/18 09:09	04/10/18 18:05	7440-70-2		
Chromium	ND	mg/L	0.010	0.0016	1	04/06/18 09:09	04/10/18 17:59	7440-47-3		
Cobalt	0.025	mg/L	0.010	0.00052	1	04/06/18 09:09	04/10/18 17:59	7440-48-4		
Lead	ND	mg/L	0.0050	0.00027	1	04/06/18 09:09	04/10/18 17:59	7439-92-1		
Lithium	0.012J	mg/L	0.050	0.00097	1	04/06/18 09:09	04/10/18 17:59	7439-93-2		
Molybdenum	0.0021J	mg/L	0.010	0.0019	1	04/06/18 09:09	04/10/18 17:59	7439-98-7		
Selenium	ND	mg/L	0.010	0.0014	1	04/06/18 09:09	04/10/18 17:59	7782-49-2		
Thallium	ND	mg/L	0.0010	0.00014	1	04/06/18 09:09	04/10/18 17:59	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.000036	1	04/10/18 11:35	04/10/18 15:37	7439-97-6		
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	1470	mg/L	50.0	50.0	1		04/10/18 18:23			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Chloride	26.6	mg/L	0.25	0.024	1		04/11/18 15:39	16887-00-6		
Fluoride	ND	mg/L	0.30	0.029	1		04/11/18 15:39	16984-48-8		
Sulfate	430	mg/L	20.0	0.34	20		04/13/18 15:43	14808-79-8		

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ANALYTICAL RESULTS

Project: Plant Yates Phase II

Pace Project No.: 263585

Sample: YGWC-49		Lab ID: 263585013		Collected: 04/04/18 12:50		Received: 04/04/18 16:45		Matrix: Water	
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Antimony	ND	mg/L	0.0030	0.00078	1	04/06/18 09:09	04/10/18 18:36	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	04/06/18 09:09	04/10/18 18:36	7440-38-2	
Barium	0.074	mg/L	0.010	0.00078	1	04/06/18 09:09	04/10/18 18:36	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	04/06/18 09:09	04/10/18 18:36	7440-41-7	
Boron	0.0041J	mg/L	0.040	0.0039	1	04/06/18 09:09	04/10/18 18:36	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000093	1	04/06/18 09:09	04/10/18 18:36	7440-43-9	
Calcium	ND	mg/L	25.0	0.69	50	04/06/18 09:09	04/10/18 18:42	7440-70-2	D3
Chromium	ND	mg/L	0.010	0.0016	1	04/06/18 09:09	04/10/18 18:36	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	04/06/18 09:09	04/10/18 18:36	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	04/06/18 09:09	04/10/18 18:36	7439-92-1	
Lithium	0.0039J	mg/L	0.050	0.00097	1	04/06/18 09:09	04/10/18 18:36	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	04/06/18 09:09	04/10/18 18:36	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	04/06/18 09:09	04/10/18 18:36	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	04/06/18 09:09	04/10/18 18:36	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00050	0.000036	1	04/10/18 11:35	04/10/18 15:39	7439-97-6	
2540C Total Dissolved Solids		Analytical Method: SM 2540C							
Total Dissolved Solids	174	mg/L	25.0	25.0	1		04/10/18 18:23		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Chloride	4.3	mg/L	0.25	0.024	1		04/11/18 16:00	16887-00-6	
Fluoride	ND	mg/L	0.30	0.029	1		04/11/18 16:00	16984-48-8	
Sulfate	76.5	mg/L	10.0	0.17	10		04/13/18 16:05	14808-79-8	

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ANALYTICAL RESULTS

Project: Plant Yates Phase II

Pace Project No.: 263585

Sample: EB-6-4-4-18		Lab ID: 263585015		Collected: 04/04/18 11:30		Received: 04/04/18 16:45		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00078	1	04/06/18 09:09	04/10/18 18:48	7440-36-0		
Arsenic	ND	mg/L	0.0050	0.00057	1	04/06/18 09:09	04/10/18 18:48	7440-38-2		
Barium	ND	mg/L	0.010	0.00078	1	04/06/18 09:09	04/10/18 18:48	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000050	1	04/06/18 09:09	04/10/18 18:48	7440-41-7		
Boron	ND	mg/L	0.040	0.0039	1	04/06/18 09:09	04/10/18 18:48	7440-42-8		
Cadmium	ND	mg/L	0.0010	0.000093	1	04/06/18 09:09	04/10/18 18:48	7440-43-9		
Calcium	ND	mg/L	0.50	0.014	1	04/06/18 09:09	04/10/18 18:48	7440-70-2		
Chromium	ND	mg/L	0.010	0.0016	1	04/06/18 09:09	04/10/18 18:48	7440-47-3		
Cobalt	ND	mg/L	0.010	0.00052	1	04/06/18 09:09	04/10/18 18:48	7440-48-4		
Lead	ND	mg/L	0.0050	0.00027	1	04/06/18 09:09	04/10/18 18:48	7439-92-1		
Lithium	ND	mg/L	0.050	0.00097	1	04/06/18 09:09	04/10/18 18:48	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.0019	1	04/06/18 09:09	04/10/18 18:48	7439-98-7		
Selenium	ND	mg/L	0.010	0.0014	1	04/06/18 09:09	04/10/18 18:48	7782-49-2		
Thallium	ND	mg/L	0.0010	0.00014	1	04/06/18 09:09	04/10/18 18:48	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.000036	1	04/10/18 11:35	04/10/18 15:42	7439-97-6		
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	ND	mg/L	25.0	25.0	1		04/10/18 18:23			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Chloride	ND	mg/L	0.25	0.024	1		04/11/18 16:22	16887-00-6	B	
Fluoride	ND	mg/L	0.30	0.029	1		04/11/18 16:22	16984-48-8		
Sulfate	ND	mg/L	1.0	0.017	1		04/11/18 16:22	14808-79-8		

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ANALYTICAL RESULTS

Project: Plant Yates Phase II

Pace Project No.: 263585

Sample: FB-6-4-4-18		Lab ID: 263585017		Collected: 04/04/18 12:30		Received: 04/04/18 16:45		Matrix: Water	
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Antimony	ND	mg/L	0.0030	0.00078	1	04/06/18 09:09	04/10/18 18:53	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	04/06/18 09:09	04/10/18 18:53	7440-38-2	
Barium	ND	mg/L	0.010	0.00078	1	04/06/18 09:09	04/10/18 18:53	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	04/06/18 09:09	04/10/18 18:53	7440-41-7	
Boron	ND	mg/L	0.040	0.0039	1	04/06/18 09:09	04/10/18 18:53	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000093	1	04/06/18 09:09	04/10/18 18:53	7440-43-9	
Calcium	ND	mg/L	0.50	0.014	1	04/06/18 09:09	04/10/18 18:53	7440-70-2	
Chromium	ND	mg/L	0.010	0.0016	1	04/06/18 09:09	04/10/18 18:53	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	04/06/18 09:09	04/10/18 18:53	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	04/06/18 09:09	04/10/18 18:53	7439-92-1	
Lithium	ND	mg/L	0.050	0.00097	1	04/06/18 09:09	04/10/18 18:53	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	04/06/18 09:09	04/10/18 18:53	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	04/06/18 09:09	04/10/18 18:53	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	04/06/18 09:09	04/10/18 18:53	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00050	0.000036	1	04/10/18 11:35	04/10/18 15:44	7439-97-6	
2540C Total Dissolved Solids		Analytical Method: SM 2540C							
Total Dissolved Solids	ND	mg/L	25.0	25.0	1		04/10/18 18:23		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Chloride	ND	mg/L	0.25	0.024	1		04/11/18 21:03	16887-00-6	
Fluoride	ND	mg/L	0.30	0.029	1		04/11/18 21:03	16984-48-8	
Sulfate	ND	mg/L	1.0	0.017	1		04/11/18 21:03	14808-79-8	

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ANALYTICAL RESULTS

Project: Plant Yates Phase II

Pace Project No.: 263585

Sample: Dup-6		Lab ID: 263585019		Collected: 04/04/18 00:00		Received: 04/04/18 16:45		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00078	1	04/06/18 09:09	04/10/18 18:59	7440-36-0		
Arsenic	ND	mg/L	0.0050	0.00057	1	04/06/18 09:09	04/10/18 18:59	7440-38-2		
Barium	0.024	mg/L	0.010	0.00078	1	04/06/18 09:09	04/10/18 18:59	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000050	1	04/06/18 09:09	04/10/18 18:59	7440-41-7		
Boron	1.2	mg/L	0.040	0.0039	1	04/06/18 09:09	04/10/18 18:59	7440-42-8		
Cadmium	ND	mg/L	0.0010	0.000093	1	04/06/18 09:09	04/10/18 18:59	7440-43-9		
Calcium	8.3	mg/L	2.5	0.069	5	04/06/18 09:09	04/11/18 16:46	7440-70-2		
Chromium	ND	mg/L	0.010	0.0016	1	04/06/18 09:09	04/10/18 18:59	7440-47-3		
Cobalt	ND	mg/L	0.010	0.00052	1	04/06/18 09:09	04/10/18 18:59	7440-48-4		
Lead	ND	mg/L	0.0050	0.00027	1	04/06/18 09:09	04/10/18 18:59	7439-92-1		
Lithium	0.016J	mg/L	0.050	0.00097	1	04/06/18 09:09	04/10/18 18:59	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.0019	1	04/06/18 09:09	04/10/18 18:59	7439-98-7		
Selenium	ND	mg/L	0.010	0.0014	1	04/06/18 09:09	04/10/18 18:59	7782-49-2		
Thallium	ND	mg/L	0.0010	0.00014	1	04/06/18 09:09	04/10/18 18:59	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.000036	1	04/10/18 11:35	04/10/18 15:47	7439-97-6		
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	303	mg/L	25.0	25.0	1		04/10/18 18:23			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Chloride	1.4	mg/L	0.25	0.024	1		04/11/18 21:24	16887-00-6		
Fluoride	ND	mg/L	0.30	0.029	1		04/11/18 21:24	16984-48-8		
Sulfate	153	mg/L	10.0	0.17	10		04/13/18 16:28	14808-79-8		

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QUALITY CONTROL DATA

Project: Plant Yates Phase II

Pace Project No.: 263585

QC Batch: 4044

Analysis Method: EPA 7470A

QC Batch Method: EPA 7470A

Analysis Description: 7470 Mercury

Associated Lab Samples: 263585001, 263585003, 263585005, 263585007, 263585009, 263585011, 263585013, 263585015, 263585017, 263585019

METHOD BLANK: 20252

Matrix: Water

Associated Lab Samples: 263585001, 263585003, 263585005, 263585007, 263585009, 263585011, 263585013, 263585015, 263585017, 263585019

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00050	0.000036	04/10/18 14:59	

LABORATORY CONTROL SAMPLE: 20253

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	.0025	0.0022	90	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 20254 20255

Parameter	Units	263498001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	mg/L	ND	.0025	.0025	0.0023	0.0025	89	95	75-125	6	20	

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QUALITY CONTROL DATA

Project: Plant Yates Phase II
Pace Project No.: 263585

QC Batch: 3855 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020B MET
Associated Lab Samples: 263585001, 263585003, 263585005, 263585007, 263585009, 263585011, 263585013, 263585015, 263585017, 263585019

METHOD BLANK: 19576 Matrix: Water
Associated Lab Samples: 263585001, 263585003, 263585005, 263585007, 263585009, 263585011, 263585013, 263585015, 263585017, 263585019

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00078	04/10/18 16:07	
Arsenic	mg/L	ND	0.0050	0.00057	04/10/18 16:07	
Barium	mg/L	ND	0.010	0.00078	04/10/18 16:07	
Beryllium	mg/L	ND	0.0030	0.000050	04/10/18 16:07	
Boron	mg/L	ND	0.040	0.0039	04/10/18 16:07	
Cadmium	mg/L	ND	0.0010	0.000093	04/10/18 16:07	
Calcium	mg/L	ND	0.50	0.014	04/10/18 16:07	
Chromium	mg/L	ND	0.010	0.0016	04/10/18 16:07	
Cobalt	mg/L	ND	0.010	0.00052	04/10/18 16:07	
Lead	mg/L	ND	0.0050	0.00027	04/10/18 16:07	
Lithium	mg/L	ND	0.050	0.00097	04/10/18 16:07	
Molybdenum	mg/L	ND	0.010	0.0019	04/10/18 16:07	
Selenium	mg/L	ND	0.010	0.0014	04/10/18 16:07	
Thallium	mg/L	ND	0.0010	0.00014	04/10/18 16:07	

LABORATORY CONTROL SAMPLE: 19577

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	.1	0.099	99	80-120	
Arsenic	mg/L	.1	0.099	99	80-120	
Barium	mg/L	.1	0.098	98	80-120	
Beryllium	mg/L	.1	0.11	106	80-120	
Boron	mg/L	1	1.1	107	80-120	
Cadmium	mg/L	.1	0.098	98	80-120	
Calcium	mg/L	1	1.0	101	80-120	
Chromium	mg/L	.1	0.10	102	80-120	
Cobalt	mg/L	.1	0.10	102	80-120	
Lead	mg/L	.1	0.099	99	80-120	
Lithium	mg/L	.1	0.11	107	80-120	
Molybdenum	mg/L	.1	0.098	98	80-120	
Selenium	mg/L	.1	0.096	96	80-120	
Thallium	mg/L	.1	0.099	99	80-120	

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QUALITY CONTROL DATA

Project: Plant Yates Phase II

Pace Project No.: 263585

Parameter	Units	MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 19578		19579		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	RPD	Qual
		263585001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result								
Antimony	mg/L	ND	.1	.1	0.10	0.11	102	106	75-125	4	20		
Arsenic	mg/L	ND	.1	.1	0.10	0.11	102	106	75-125	5	20		
Barium	mg/L	0.022	.1	.1	0.12	0.13	98	103	75-125	4	20		
Beryllium	mg/L	ND	.1	.1	0.10	0.11	103	112	75-125	8	20		
Boron	mg/L	0.013J	1	1	1.0	1.1	100	109	75-125	8	20		
Cadmium	mg/L	ND	.1	.1	0.098	0.11	98	107	75-125	8	20		
Calcium	mg/L	ND	1	1	12.6J	13.9J	54	178	75-125	9	20	M6	
Chromium	mg/L	ND	.1	.1	0.10	0.11	104	110	75-125	6	20		
Cobalt	mg/L	ND	.1	.1	0.11	0.11	103	107	75-125	4	20		
Lead	mg/L	ND	.1	.1	0.10	0.11	101	105	75-125	4	20		
Lithium	mg/L	0.0045J	.1	.1	0.10	0.11	100	107	75-125	7	20		
Molybdenum	mg/L	ND	.1	.1	0.10	0.11	100	106	75-125	5	20		
Selenium	mg/L	ND	.1	.1	0.10	0.11	101	107	75-125	6	20		
Thallium	mg/L	ND	.1	.1	0.10	0.11	100	105	75-125	5	20		

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QUALITY CONTROL DATA

Project: Plant Yates Phase II
Pace Project No.: 263585

QC Batch: 405309 Analysis Method: SM 2540C
QC Batch Method: SM 2540C Analysis Description: 2540C Total Dissolved Solids
Associated Lab Samples: 263585001

METHOD BLANK: 2248515 Matrix: Water
Associated Lab Samples: 263585001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	25.0	25.0	04/06/18 21:30	

LABORATORY CONTROL SAMPLE: 2248516

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	250	270	108	90-110	

SAMPLE DUPLICATE: 2248517

Parameter	Units	263579001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	34.0	39.0	14	5	D6

SAMPLE DUPLICATE: 2248518

Parameter	Units	92379425011 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	257	249	3	5	

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QUALITY CONTROL DATA

Project: Plant Yates Phase II
Pace Project No.: 263585

QC Batch: 405425 Analysis Method: SM 2540C
QC Batch Method: SM 2540C Analysis Description: 2540C Total Dissolved Solids
Associated Lab Samples: 263585003

METHOD BLANK: 2249021 Matrix: Water
Associated Lab Samples: 263585003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	25.0	25.0	04/08/18 16:46	

LABORATORY CONTROL SAMPLE: 2249022

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	250	260	104	90-110	

SAMPLE DUPLICATE: 2249023

Parameter	Units	263579017 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	105	113	7	5	D6

SAMPLE DUPLICATE: 2249024

Parameter	Units	263580011 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	660	644	2	5	

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QUALITY CONTROL DATA

Project: Plant Yates Phase II
Pace Project No.: 263585

QC Batch: 405558 Analysis Method: SM 2540C
QC Batch Method: SM 2540C Analysis Description: 2540C Total Dissolved Solids
Associated Lab Samples: 263585005, 263585007, 263585009, 263585011, 263585013, 263585015, 263585017, 263585019

METHOD BLANK: 2249847 Matrix: Water
Associated Lab Samples: 263585005, 263585007, 263585009, 263585011, 263585013, 263585015, 263585017, 263585019

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	25.0	25.0	04/10/18 18:23	

LABORATORY CONTROL SAMPLE: 2249848

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	250	232	93	90-110	

SAMPLE DUPLICATE: 2249849

Parameter	Units	92379682010 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	46.0	37.0	22	5	D6

SAMPLE DUPLICATE: 2249850

Parameter	Units	263585019 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	303	298	2	5	

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QUALITY CONTROL DATA

Project: Plant Yates Phase II
Pace Project No.: 263585

QC Batch: 4157 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 263585001, 263585003, 263585005, 263585007, 263585009, 263585011, 263585013, 263585015, 263585017, 263585019

METHOD BLANK: 20683 Matrix: Water
Associated Lab Samples: 263585001, 263585003, 263585005, 263585007, 263585009, 263585011, 263585013, 263585015, 263585017, 263585019

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.024	04/11/18 11:46	
Fluoride	mg/L	ND	0.30	0.029	04/11/18 11:46	
Sulfate	mg/L	ND	1.0	0.017	04/11/18 11:46	

LABORATORY CONTROL SAMPLE: 20684

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	10	9.7	97	90-110	
Fluoride	mg/L	10	9.9	99	90-110	
Sulfate	mg/L	10	9.7	97	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 20685 20686

Parameter	Units	263584001		20686		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Chloride	mg/L	4.8	1	1	14.3	14.3	944	942	90-110	0	15 M1
Fluoride	mg/L	ND	1	1	9.9	9.9	975	973	90-110	0	15 M1
Sulfate	mg/L	88.8	1	1	84.8	84.9	-399	-393	90-110	0	15 E

MATRIX SPIKE SAMPLE: 20687

Parameter	Units	263584002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	4.6	10	13.3	87	90-110	
Fluoride	mg/L	ND	10	9.1	89	90-110	
Sulfate	mg/L	183	10	146	-372	90-110 E	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Phase II

Pace Project No.: 263585

Sample: YGWA-47 **Lab ID: 263585002** Collected: 04/02/18 14:25 Received: 04/04/18 16:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.459 ± 0.213 (0.316) C:79% T:NA	pCi/L	04/19/18 08:39	13982-63-3	
Radium-228	EPA 9320	0.0533 ± 0.287 (0.658) C:73% T:96%	pCi/L	04/20/18 15:15	15262-20-1	
Total Radium	Total Radium Calculation	0.512 ± 0.500 (0.974)	pCi/L	04/26/18 13:25	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Phase II

Pace Project No.: 263585

Sample: YGWC-45 **Lab ID: 263585004** Collected: 04/03/18 14:05 Received: 04/04/18 16:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.850 ± 0.266 (0.265) C:84% T:NA	pCi/L	04/19/18 08:39	13982-63-3	
Radium-228	EPA 9320	0.676 ± 0.435 (0.824) C:76% T:78%	pCi/L	04/20/18 15:15	15262-20-1	
Total Radium	Total Radium Calculation	1.53 ± 0.701 (1.09)	pCi/L	04/26/18 13:25	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Phase II

Pace Project No.: 263585

Sample: YGWC-42 **Lab ID: 263585006** Collected: 04/04/18 11:45 Received: 04/04/18 16:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.886 ± 0.244 (0.141) C:95% T:NA	pCi/L	04/19/18 10:15	13982-63-3	
Radium-228	EPA 9320	1.01 ± 0.458 (0.741) C:71% T:78%	pCi/L	04/20/18 15:15	15262-20-1	
Total Radium	Total Radium Calculation	1.90 ± 0.702 (0.882)	pCi/L	04/26/18 13:25	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Phase II

Pace Project No.: 263585

Sample: YGWC-43 **Lab ID: 263585008** Collected: 04/04/18 09:40 Received: 04/04/18 16:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	1.24 ± 0.308 (0.157) C:93% T:NA	pCi/L	04/19/18 10:15	13982-63-3	
Radium-228	EPA 9320	0.467 ± 0.325 (0.611) C:81% T:76%	pCi/L	04/20/18 15:15	15262-20-1	
Total Radium	Total Radium Calculation	1.71 ± 0.633 (0.768)	pCi/L	04/26/18 13:25	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Phase II

Pace Project No.: 263585

Sample: YGWC-44 **Lab ID: 263585010** Collected: 04/04/18 12:05 Received: 04/04/18 16:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.194 ± 0.182 (0.363) C:91% T:NA	pCi/L	04/19/18 08:37	13982-63-3	
Radium-228	EPA 9320	0.131 ± 0.331 (0.740) C:77% T:79%	pCi/L	04/25/18 11:24	15262-20-1	
Total Radium	Total Radium Calculation	0.325 ± 0.516 (1.10)	pCi/L	04/26/18 13:38	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Phase II

Pace Project No.: 263585

Sample: YGWC-46 **Lab ID: 263585012** Collected: 04/04/18 15:55 Received: 04/04/18 16:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.515 ± 0.231 (0.275) C:84% T:NA	pCi/L	04/19/18 08:37	13982-63-3	
Radium-228	EPA 9320	0.459 ± 0.355 (0.697) C:81% T:80%	pCi/L	04/25/18 11:24	15262-20-1	
Total Radium	Total Radium Calculation	0.974 ± 0.586 (0.972)	pCi/L	04/26/18 13:38	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Phase II

Pace Project No.: 263585

Sample: YGWC-49 **Lab ID: 263585014** Collected: 04/04/18 12:50 Received: 04/04/18 16:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.216 ± 0.175 (0.316) C:82% T:NA	pCi/L	04/19/18 08:37	13982-63-3	
Radium-228	EPA 9320	0.226 ± 0.322 (0.692) C:77% T:81%	pCi/L	04/25/18 11:28	15262-20-1	
Total Radium	Total Radium Calculation	0.442 ± 0.497 (1.01)	pCi/L	04/26/18 13:38	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Phase II

Pace Project No.: 263585

Sample: EB-6-4-4-18 **Lab ID: 263585016** Collected: 04/04/18 11:30 Received: 04/04/18 16:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.304 ± 0.203 (0.335) C:76% T:NA	pCi/L	04/19/18 08:37	13982-63-3	
Radium-228	EPA 9320	0.786 ± 0.384 (0.627) C:82% T:71%	pCi/L	04/25/18 11:28	15262-20-1	
Total Radium	Total Radium Calculation	1.09 ± 0.587 (0.962)	pCi/L	04/26/18 13:38	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Phase II

Pace Project No.: 263585

Sample: FB-6-4-4-18 **Lab ID: 263585018** Collected: 04/04/18 12:30 Received: 04/04/18 16:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.270 ± 0.170 (0.258) C:86% T:NA	pCi/L	04/19/18 08:37	13982-63-3	
Radium-228	EPA 9320	0.254 ± 0.342 (0.730) C:77% T:78%	pCi/L	04/25/18 14:31	15262-20-1	
Total Radium	Total Radium Calculation	0.524 ± 0.512 (0.988)	pCi/L	04/26/18 13:38	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Phase II

Pace Project No.: 263585

Sample: Dup-6 **Lab ID: 263585020** Collected: 04/04/18 00:00 Received: 04/04/18 16:45 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	1.15 ± 0.356 (0.309) C:83% T:NA	pCi/L	04/19/18 08:37	13982-63-3	
Radium-228	EPA 9320	0.537 ± 0.369 (0.712) C:81% T:83%	pCi/L	04/25/18 14:31	15262-20-1	
Total Radium	Total Radium Calculation	1.69 ± 0.725 (1.02)	pCi/L	04/26/18 13:38	7440-14-4	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Yates Phase II

Pace Project No.: 263585

QC Batch: 294198

Analysis Method: EPA 9320

QC Batch Method: EPA 9320

Analysis Description: 9320 Radium 228

Associated Lab Samples: 263585010, 263585012, 263585014, 263585016, 263585018, 263585020

METHOD BLANK: 1440645

Matrix: Water

Associated Lab Samples: 263585010, 263585012, 263585014, 263585016, 263585018, 263585020

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.0414 ± 0.317 (0.731) C:80% T:78%	pCi/L	04/25/18 11:24	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Yates Phase II

Pace Project No.: 263585

QC Batch: 294195 Analysis Method: EPA 9315
QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium
Associated Lab Samples: 263585010, 263585012, 263585014, 263585016, 263585018, 263585020

METHOD BLANK: 1440640 Matrix: Water
Associated Lab Samples: 263585010, 263585012, 263585014, 263585016, 263585018, 263585020

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.202 ± 0.146 (0.231) C:87% T:NA	pCi/L	04/19/18 08:37	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Yates Phase II

Pace Project No.: 263585

QC Batch: 294196

Analysis Method: EPA 9320

QC Batch Method: EPA 9320

Analysis Description: 9320 Radium 228

Associated Lab Samples: 263585002, 263585004, 263585006, 263585008

METHOD BLANK: 1440643

Matrix: Water

Associated Lab Samples: 263585002, 263585004, 263585006, 263585008

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	-0.0447 ± 0.264 (0.636) C:75% T:85%	pCi/L	04/20/18 11:37	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Yates Phase II
 Pace Project No.: 263585

QC Batch: 294194 Analysis Method: EPA 9315
 QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium
 Associated Lab Samples: 263585002, 263585004, 263585006, 263585008

METHOD BLANK: 1440635 Matrix: Water
 Associated Lab Samples: 263585002, 263585004, 263585006, 263585008

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.260 ± 0.105 (0.126) C:91% T:NA	pCi/L	04/18/18 19:04	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: Plant Yates Phase II
Pace Project No.: 263585

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.
ND - Not Detected at or above adjusted reporting limit.
J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.
MDL - Adjusted Method Detection Limit.
PQL - Practical Quantitation Limit.
RL - Reporting Limit.
S - Surrogate
1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.
Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.
LCS(D) - Laboratory Control Sample (Duplicate)
MS(D) - Matrix Spike (Duplicate)
DUP - Sample Duplicate
RPD - Relative Percent Difference
NC - Not Calculable.
SG - Silica Gel - Clean-Up
U - Indicates the compound was analyzed for, but not detected.
N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.
Act - Activity
Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval).
Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)
(MDC) - Minimum Detectable Concentration
Trac - Tracer Recovery (%)
Carr - Carrier Recovery (%)
Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.
TNI - The NELAC Institute.

LABORATORIES

PASI-A Pace Analytical Services - Asheville
PASI-GA Pace Analytical Services - Atlanta, GA
PASI-PA Pace Analytical Services - Greensburg

ANALYTE QUALIFIERS

B Analyte was detected in the associated method blank.
D3 Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
D6 The precision between the sample and sample duplicate exceeded laboratory control limits.
E Analyte concentration exceeded the calibration range. The reported result is estimated.
M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
M6 Matrix spike and Matrix spike duplicate recovery not evaluated against control limits due to sample dilution.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Yates Phase II
Pace Project No.: 263585

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
263585001	YGWA-47	EPA 3005A	3855	EPA 6020B	4097
263585003	YGWC-45	EPA 3005A	3855	EPA 6020B	4097
263585005	YGWC-42	EPA 3005A	3855	EPA 6020B	4097
263585007	YGWC-43	EPA 3005A	3855	EPA 6020B	4097
263585009	YGWC-44	EPA 3005A	3855	EPA 6020B	4097
263585011	YGWC-46	EPA 3005A	3855	EPA 6020B	4097
263585013	YGWC-49	EPA 3005A	3855	EPA 6020B	4097
263585015	EB-6-4-4-18	EPA 3005A	3855	EPA 6020B	4097
263585017	FB-6-4-4-18	EPA 3005A	3855	EPA 6020B	4097
263585019	Dup-6	EPA 3005A	3855	EPA 6020B	4097
263585001	YGWA-47	EPA 7470A	4044	EPA 7470A	4091
263585003	YGWC-45	EPA 7470A	4044	EPA 7470A	4091
263585005	YGWC-42	EPA 7470A	4044	EPA 7470A	4091
263585007	YGWC-43	EPA 7470A	4044	EPA 7470A	4091
263585009	YGWC-44	EPA 7470A	4044	EPA 7470A	4091
263585011	YGWC-46	EPA 7470A	4044	EPA 7470A	4091
263585013	YGWC-49	EPA 7470A	4044	EPA 7470A	4091
263585015	EB-6-4-4-18	EPA 7470A	4044	EPA 7470A	4091
263585017	FB-6-4-4-18	EPA 7470A	4044	EPA 7470A	4091
263585019	Dup-6	EPA 7470A	4044	EPA 7470A	4091
263585002	YGWA-47	EPA 9315	294194		
263585004	YGWC-45	EPA 9315	294194		
263585006	YGWC-42	EPA 9315	294194		
263585008	YGWC-43	EPA 9315	294194		
263585010	YGWC-44	EPA 9315	294195		
263585012	YGWC-46	EPA 9315	294195		
263585014	YGWC-49	EPA 9315	294195		
263585016	EB-6-4-4-18	EPA 9315	294195		
263585018	FB-6-4-4-18	EPA 9315	294195		
263585020	Dup-6	EPA 9315	294195		
263585002	YGWA-47	EPA 9320	294196		
263585004	YGWC-45	EPA 9320	294196		
263585006	YGWC-42	EPA 9320	294196		
263585008	YGWC-43	EPA 9320	294196		
263585010	YGWC-44	EPA 9320	294198		
263585012	YGWC-46	EPA 9320	294198		
263585014	YGWC-49	EPA 9320	294198		
263585016	EB-6-4-4-18	EPA 9320	294198		
263585018	FB-6-4-4-18	EPA 9320	294198		
263585020	Dup-6	EPA 9320	294198		
263585002	YGWA-47	Total Radium Calculation	296141		
263585004	YGWC-45	Total Radium Calculation	296141		
263585006	YGWC-42	Total Radium Calculation	296141		
263585008	YGWC-43	Total Radium Calculation	296141		
263585010	YGWC-44	Total Radium Calculation	296147		

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Yates Phase II

Pace Project No.: 263585

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
263585012	YGWC-46	Total Radium Calculation	296147		
263585014	YGWC-49	Total Radium Calculation	296147		
263585016	EB-6-4-4-18	Total Radium Calculation	296147		
263585018	FB-6-4-4-18	Total Radium Calculation	296147		
263585020	Dup-6	Total Radium Calculation	296147		
263585001	YGWA-47	SM 2540C	405309		
263585003	YGWC-45	SM 2540C	405425		
263585005	YGWC-42	SM 2540C	405558		
263585007	YGWC-43	SM 2540C	405558		
263585009	YGWC-44	SM 2540C	405558		
263585011	YGWC-46	SM 2540C	405558		
263585013	YGWC-49	SM 2540C	405558		
263585015	EB-6-4-4-18	SM 2540C	405558		
263585017	FB-6-4-4-18	SM 2540C	405558		
263585019	Dup-6	SM 2540C	405558		
263585001	YGWA-47	EPA 300.0	4157		
263585003	YGWC-45	EPA 300.0	4157		
263585005	YGWC-42	EPA 300.0	4157		
263585007	YGWC-43	EPA 300.0	4157		
263585009	YGWC-44	EPA 300.0	4157		
263585011	YGWC-46	EPA 300.0	4157		
263585013	YGWC-49	EPA 300.0	4157		
263585015	EB-6-4-4-18	EPA 300.0	4157		
263585017	FB-6-4-4-18	EPA 300.0	4157		
263585019	Dup-6	EPA 300.0	4157		

REPORT OF LABORATORY ANALYSIS

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CHAIN OF CUSTODY RECORD

Pace Analytical Services, Inc.
 110 TECHNOLOGY PARKWAY, PEACHTREE CORNERS, GA 30092
 (770) 734-4200 : FAX (770) 734-4201 : www.asi-lab.com

PAGE: 1 OF 1

CLIENT NAME:		ANALYSIS REQUESTED		CONTAINER TYPE		PRESERVATION	
Georgia Power		P P P P		P - PLASTIC		1 - HCl, 56°C	
CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER:		P 7 3		A - AMBER GLASS		2 - H ₂ SO ₄ , 56°C	
241 Ralph McGill Blvd SE B101185		3		G - CLEAR GLASS		3 - HNO ₃	
Atlanta, GA 30308				V - VOA VIAL		4 - NaOH, 56°C	
REPORT TO:				S - STERILE		5 - NaOH/ZnAc, 56°C	
Joju Abraham				O - OTHER		6 - Na ₂ S ₂ O ₃ , 56°C	
REQUESTED COMPLETION DATE:						7 - 56°C not frozen	
PO #:							
laburch@southernco.com							
PROJECT NAME/STATE:							
Plant Yates - Phase 2 Facility Wells							
PROJECT #:							
Phase 2 CCR							
Collection DATE	Collection TIME	MATRIX CODE*	C O M P	SAMPLE IDENTIFICATION	CONTAINER TYPE	ANALYSIS REQUESTED	PRESERVATION
4-2-18	1425	6W	X	Y6WA-47			
4-3-18	1405	6W	X	Y6WC-45			
4-4-18	1445	6W	X	Y6WC-42			
4-4-18	0940	6W	X	Y6WC-43			
4-4-18	1205	6W	X	Y6WC-44			
4-4-18	1555	6W	X	Y6WC-46			
4-4-18	1250	6W	X	Y6WC-49			
4-4-18	1130	W	X	EB-6-4-4-18			
4-4-18	1230	W	X	FB-6-4-4-18			
4-4-18	—	6W	X	DUP-6			

RELINQUISHED BY: <i>[Signature]</i>	DATE/TIME: 4-4-18 1500				
RELINQUISHED BY:	DATE/TIME:				
SAMPLE SHIPPED VIA: <i>[Signature]</i>	DATE/TIME: 4-4-18 1645				
UPS	FED-EX	USPS	COLLIER	CLIENT	OTHER
Country Sent	Origin	Not Present	# of Copies	Order ID	FS

NO# : 263585

263585

FOR LAB USE ONLY

LAB #

Entered into LIMS

Tracking #:

Sample Condition Upon Receipt



Client Name: GIA Power

Project # _____

WO#: 263585

Courier: Fed Ex UPS USPS Client Commercial Pace Other _____
Tracking #: _____

PM: BM Due Date: 04/11/18

Custody Seal on Cooler/Box Present: yes no Seals intact: yes no

CLIENT: GAPower-CCR

Packing Material: Bubble Wrap Bubble Bags None Other _____

Thermometer Used 83 Type of Ice: Wet Blue None Samples on Ice, cooling process has begun

Cooler Temperature 0.1 Biological Tissue Is Frozen: Yes No
Temp should be above freezing to 6°C

Date and Initials of person examining contents: 4/9/18 MR

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.	
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.	
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.	
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.	
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.	
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.	
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.	
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.	
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.	
-Pace Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.	
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.	
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.	
-Includes date/time/ID/Analysis Matrix:	<u>GW</u>		
All containers needing preservation have been checked.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	13.	
All containers needing preservation are found to be in compliance with EPA recommendation.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
exceptions: VOA, coliform, TOC, O&G, W-DRO (water)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Initial when completed	Lot # of added preservative
Samples checked for dechlorination:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.	
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.	
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	16.	
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A		
Pace Trip Blank Lot # (if purchased):			

Client Notification/ Resolution: _____ Field Data Required? Y / N
 Person Contacted: _____ Date/Time: _____
 Comments/ Resolution: _____

Project Manager Review: _____ Date: _____

Note: Whenever there is a discrepancy affecting North Carolina compliance samples a copy of this form will be sent to the North Carolina DEHNR Certification Office (1) out of hold (incorrect preservative) out of temp (incorrect containers)

Product Name: Low-Flow System

Date: 2018-06-27 13:45:47

Project Information:

Operator Name J Berisford
Company Name Atlantic Coast Consulting
Project Name Plant Yates- Additional Phase 2 CCR
Site Name Plant Yates
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 573204
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED Bladder
Tubing Type poly
Tubing Diameter .375 in
Tubing Length 48 ft

Pump placement from TOC 43 ft

Well Information:

Well ID PZ-41
Well diameter 2 in
Well Total Depth 48.17 ft
Screen Length 10 ft
Depth to Water 27.51 ft

Pumping Information:

Final Pumping Rate 110 mL/min
Total System Volume 1.527495 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 7 in
Total Volume Pumped 3.3 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%	+/- 0		+/- 10%	+/- 10
Last 5	13:25:05	600.03	21.99	4.80	771.31	0.38	28.10	2.00	64.21
Last 5	13:30:05	900.02	21.89	4.78	748.42	0.31	28.10	1.57	62.56
Last 5	13:35:05	1200.00	21.88	4.78	749.61	0.33	28.10	1.52	62.63
Last 5	13:40:05	1500.01	21.76	4.78	757.41	0.21	28.10	1.53	63.76
Last 5	13:45:05	1800.01	21.90	4.78	763.44	0.20	28.20	1.53	64.66
Variance 0			-0.01	0.00	1.19			-0.05	0.07
Variance 1			-0.12	0.00	7.80			0.01	1.13
Variance 2			0.14	-0.01	6.03			0.01	0.90

Notes

Sunny, sample time-1345

Grab Samples

Product Name: Low-Flow System

Date: 2018-06-28 11:12:10

Project Information:

Operator Name J Berisford
Company Name Atlantic Coast Consulting
Project Name Plant Yates- Additional Phase 2 CCR
Site Name Plant Yates
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 573204
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED Bladder
Tubing Type poly
Tubing Diameter .375 in
Tubing Length 50 ft

Pump placement from TOC 45 ft

Well Information:

Well ID PZ-38
Well diameter 2 in
Well Total Depth 50.12 ft
Screen Length 10 ft
Depth to Water ft

Pumping Information:

Final Pumping Rate 140 mL/min
Total System Volume 1.570932 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			+/- 10	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 10
Last 5	10:50:37	1800.01	25.70	4.75	1558.98	1.12	--	0.67	103.61
Last 5	10:55:37	2100.01	25.81	4.75	1556.34	0.51	--	0.61	103.67
Last 5	11:00:37	2400.00	26.18	4.75	1555.25	0.58	--	0.58	101.46
Last 5	11:05:37	2699.99	26.59	4.75	1553.41	0.46	--	0.55	100.70
Last 5	11:10:37	2999.99	26.11	4.75	1548.11	0.39	--	0.54	99.18
Variance 0			0.37	-0.00	-1.09			-0.03	-2.21
Variance 1			0.41	0.00	-1.85			-0.03	-0.76
Variance 2			-0.49	0.00	-5.29			-0.01	-1.52

Notes

Sunny , sample time -1110, transducer in the well, unable to collect water level during sampling

Grab Samples

Product Name: Low-Flow System

Date: 2018-06-28 12:39:01

Project Information:

Operator Name J Berisford
Company Name Atlantic Coast Consulting
Project Name Plant Yates- Additional Phase 2 CCR
Site Name Plant Yates
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 573204
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED Bladder
Tubing Type poly
Tubing Diameter .375 in
Tubing Length 48 ft

Pump placement from TOC 43 ft

Well Information:

Well ID PZ-40
Well diameter 2 in
Well Total Depth 48.17 ft
Screen Length 10 ft
Depth to Water 26.3 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 1.527495 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 11.7 in
Total Volume Pumped 4.5 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%	+/- 0		+/- 10%	+/- 10
Last 5	12:15:45	600.04	20.74	5.27	138.85	1.11	26.70	6.45	88.55
Last 5	12:20:45	900.03	20.64	5.25	136.68	0.72	27.00	5.88	86.38
Last 5	12:25:45	1200.02	20.32	5.25	139.10	0.55	27.20	5.73	81.11
Last 5	12:30:45	1500.02	20.42	5.24	141.74	0.32	27.20	5.61	78.93
Last 5	12:35:45	1800.01	20.25	5.24	143.57	0.38	27.20	5.60	78.12
Variance 0			-0.33	-0.01	2.42			-0.15	-5.27
Variance 1			0.11	-0.00	2.64			-0.12	-2.18
Variance 2			-0.17	-0.00	1.83			-0.02	-0.80

Notes

Sunny, sample time -1235

Grab Samples

Product Name: Low-Flow System

Date: 2018-06-29 09:06:28

Project Information:

Operator Name J Berisford
Company Name Atlantic Coast Consulting
Project Name Plant Yates- Additional Phase 2 CCR
Site Name Plant Yates
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 573204
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED Bladder
Tubing Type poly
Tubing Diameter .375 in
Tubing Length 46.5 ft

Pump placement from TOC 41.5 ft

Well Information:

Well ID PZ-37
Well diameter 2 in
Well Total Depth 46.50 ft
Screen Length 10 ft
Depth to Water ft

Pumping Information:

Final Pumping Rate 230 mL/min
Total System Volume 1.494917 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0 in
Total Volume Pumped 6.9 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%	+/- 0		+/- 10%	+/- 10
Last 5	08:45:07	600.03	19.31	5.68	1214.49	1.70	--	0.57	63.57
Last 5	08:50:07	900.03	19.31	5.63	1229.01	2.34	--	0.27	65.37
Last 5	08:55:07	1200.02	19.38	5.59	1246.03	1.63	--	0.20	67.73
Last 5	09:00:07	1499.99	19.49	5.53	1255.73	1.11	--	0.24	70.69
Last 5	09:05:07	1800.01	19.53	5.49	1264.71	1.01	--	0.31	73.07
Variance 0			0.08	-0.04	17.02			-0.07	2.36
Variance 1			0.11	-0.06	9.70			0.04	2.96
Variance 2			0.04	-0.04	8.98			0.07	2.38

Notes

Sunny, sample time-0905, transducer in well, unable to collect WL during sampling.

Grab Samples

Product Name: Low-Flow System

Date: 2018-06-28 11:24:07

Project Information:

Operator Name H. Auld
Company Name ACC
Project Name Plant Yates - Additional Phase 2 CCR
Site Name Plant Yates
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 463453
Turbidity Make/Model HACH 2100Q

Pump Information:

Pump Model/Type QED Ded. Bladder Pump
Tubing Type poly
Tubing Diameter .17 in
Tubing Length 68.45 ft

Pump placement from TOC 63 ft

Well Information:

Well ID PZ-39
Well diameter 2 in
Well Total Depth 68.45 ft
Screen Length 10 ft
Depth to Water 24.42 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.6955214 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 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			+/- 100	+/- 0.1	+/- 5%	+/- 100		+/- 10%	+/- 100
Last 5	10:59:52	1801.02	21.47	6.21	79.32	3.30	24.70	3.72	151.61
Last 5	11:04:53	2102.33	21.64	6.20	79.50	2.50	24.70	0.00	156.21
Last 5	11:09:53	2402.33	21.15	6.16	79.46	2.60	24.75	4.05	161.10
Last 5	11:14:56	2705.33	20.79	6.19	79.43	2.20	24.75	4.15	161.90
Last 5	11:19:57	3006.33	20.70	6.18	79.14	1.80	24.75	4.22	163.92
Variance 0			-0.49	-0.04	-0.03			4.05	4.89
Variance 1			-0.36	0.03	-0.03			0.10	0.80
Variance 2			-0.09	-0.01	-0.29			0.06	2.03

Notes

Sampled at 1120. Cloudy 80s.

Grab Samples

July 10, 2018

Joju Abraham
Georgia Power - Coal Combustion Residuals
2480 Maner Road
Atlanta, GA 30339

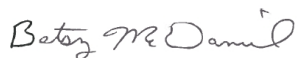
RE: Project: Plant Yates Ash Ponds
Pace Project No.: 266688

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on June 29, 2018. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Betsy McDaniel
betsy.mcdaniel@pacelabs.com
(770)734-4200
Project Manager

Enclosures

cc: Maria Padilla, Georgia Power
Chris Parker, Atlantic Coast Consulting
Evan Perry, Atlantic Coast Consulting
Lauren Petty, Southern Company Services, Inc.
Rebecca Thornton, Pace Analytical Atlanta



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: Plant Yates Ash Ponds

Pace Project No.: 266688

Atlanta Certification IDs

110 Technology Parkway Peachtree Corners, GA 30092

Florida DOH Certification #: E87315

Georgia DW Inorganics Certification #: 812

Georgia DW Microbiology Certification #: 812

North Carolina Certification #: 381

South Carolina Certification #: 98011001

Texas Certification #: T104704397-08-TX

Virginia Certification #: 460204

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SAMPLE SUMMARY

Project: Plant Yates Ash Ponds

Pace Project No.: 266688

Lab ID	Sample ID	Matrix	Date Collected	Date Received
266688001	PZ-41	Water	06/27/18 13:45	06/29/18 15:03
266688002	PZ-38	Water	06/28/18 11:10	06/29/18 15:03
266688003	PZ-40	Water	06/28/18 12:35	06/29/18 15:03
266688004	EB-1-6-28-18	Water	06/28/18 12:45	06/29/18 15:03
266688005	FB-1-6-28-18	Water	06/28/18 12:00	06/29/18 15:03
266688006	PZ-37	Water	06/29/18 09:05	06/29/18 15:03
266688007	PZ-39	Water	06/28/18 11:20	06/29/18 15:03
266688008	Dup-1	Water	06/29/18 00:00	06/29/18 15:03

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SAMPLE ANALYTE COUNT

Project: Plant Yates Ash Ponds
Pace Project No.: 266688

Lab ID	Sample ID	Method	Analysts	Analytes Reported
266688001	PZ-41	EPA 6020B	CSW	14
		EPA 7470A	DRB	1
		SM 2540C	JPT	1
		EPA 300.0	RLC	3
266688002	PZ-38	EPA 6020B	CSW	14
		EPA 7470A	DRB	1
		SM 2540C	JPT	1
		EPA 300.0	RLC	3
266688003	PZ-40	EPA 6020B	CSW	14
		EPA 7470A	DRB	1
		SM 2540C	JPT	1
		EPA 300.0	RLC	3
266688004	EB-1-6-28-18	EPA 6020B	CSW	14
		EPA 7470A	DRB	1
		SM 2540C	JPT	1
		EPA 300.0	RLC	3
266688005	FB-1-6-28-18	EPA 6020B	CSW	14
		EPA 7470A	DRB	1
		SM 2540C	JPT	1
		EPA 300.0	RLC	3
266688006	PZ-37	EPA 6020B	CSW	14
		EPA 7470A	DRB	1
		SM 2540C	JPT	1
		EPA 300.0	MWB, RLC	3
266688007	PZ-39	EPA 6020B	CSW	14
		EPA 7470A	DRB	1
		SM 2540C	JPT	1
		EPA 300.0	RLC	3
266688008	Dup-1	EPA 6020B	CSW	14
		EPA 7470A	DRB	1
		SM 2540C	JPT	1
		EPA 300.0	MWB, RLC	3

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ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds

Pace Project No.: 266688

Sample: PZ-41		Lab ID: 266688001		Collected: 06/27/18 13:45		Received: 06/29/18 15:03		Matrix: Water	
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Antimony	ND	mg/L	0.0030	0.00078	1	07/03/18 09:55	07/09/18 15:39	7440-36-0	
Arsenic	0.00062J	mg/L	0.0050	0.00057	1	07/03/18 09:55	07/09/18 15:39	7440-38-2	
Barium	0.028	mg/L	0.010	0.00078	1	07/03/18 09:55	07/09/18 15:39	7440-39-3	
Beryllium	0.0038	mg/L	0.0030	0.000050	1	07/03/18 09:55	07/09/18 15:39	7440-41-7	
Boron	14.1	mg/L	2.0	0.20	50	07/03/18 09:55	07/09/18 15:45	7440-42-8	M1
Cadmium	0.00025J	mg/L	0.0010	0.000093	1	07/03/18 09:55	07/09/18 15:39	7440-43-9	
Calcium	42.2	mg/L	25.0	0.69	50	07/03/18 09:55	07/09/18 15:45	7440-70-2	M6
Chromium	ND	mg/L	0.010	0.0016	1	07/03/18 09:55	07/09/18 15:39	7440-47-3	
Cobalt	0.00069J	mg/L	0.010	0.00052	1	07/03/18 09:55	07/09/18 15:39	7440-48-4	
Lead	0.0011J	mg/L	0.0050	0.00027	1	07/03/18 09:55	07/09/18 15:39	7439-92-1	
Lithium	0.0042J	mg/L	0.050	0.00097	1	07/03/18 09:55	07/09/18 15:39	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	07/03/18 09:55	07/09/18 15:39	7439-98-7	
Selenium	0.066	mg/L	0.010	0.0014	1	07/03/18 09:55	07/09/18 15:39	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	07/03/18 09:55	07/09/18 15:39	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00050	0.000036	1	07/03/18 08:20	07/03/18 13:07	7439-97-6	
2540C Total Dissolved Solids		Analytical Method: SM 2540C							
Total Dissolved Solids	575	mg/L	25.0	10.0	1		07/03/18 14:34		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Chloride	3.6	mg/L	0.25	0.024	1		07/04/18 00:11	16887-00-6	
Fluoride	ND	mg/L	0.30	0.029	1		07/04/18 00:11	16984-48-8	
Sulfate	357	mg/L	10.0	0.17	10		07/07/18 19:14	14808-79-8	

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ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds
Pace Project No.: 266688

Sample: PZ-38		Lab ID: 266688002		Collected: 06/28/18 11:10		Received: 06/29/18 15:03		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00078	1	07/03/18 09:55	07/09/18 16:37	7440-36-0		
Arsenic	0.0017J	mg/L	0.0050	0.00057	1	07/03/18 09:55	07/09/18 16:37	7440-38-2		
Barium	0.024	mg/L	0.010	0.00078	1	07/03/18 09:55	07/09/18 16:37	7440-39-3		
Beryllium	0.0059	mg/L	0.0030	0.000050	1	07/03/18 09:55	07/09/18 16:37	7440-41-7		
Boron	22.7	mg/L	2.0	0.20	50	07/03/18 09:55	07/09/18 16:42	7440-42-8		
Cadmium	0.0029	mg/L	0.0010	0.000093	1	07/03/18 09:55	07/09/18 16:37	7440-43-9		
Calcium	190	mg/L	25.0	0.69	50	07/03/18 09:55	07/09/18 16:42	7440-70-2		
Chromium	ND	mg/L	0.010	0.0016	1	07/03/18 09:55	07/09/18 16:37	7440-47-3		
Cobalt	ND	mg/L	0.010	0.00052	1	07/03/18 09:55	07/09/18 16:37	7440-48-4		
Lead	ND	mg/L	0.0050	0.00027	1	07/03/18 09:55	07/09/18 16:37	7439-92-1		
Lithium	0.0093J	mg/L	0.050	0.00097	1	07/03/18 09:55	07/09/18 16:37	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.0019	1	07/03/18 09:55	07/09/18 16:37	7439-98-7		
Selenium	0.23	mg/L	0.010	0.0014	1	07/03/18 09:55	07/09/18 16:37	7782-49-2		
Thallium	ND	mg/L	0.0010	0.00014	1	07/03/18 09:55	07/09/18 16:37	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	0.000037J	mg/L	0.00050	0.000036	1	07/03/18 08:20	07/03/18 13:09	7439-97-6	B	
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	1310	mg/L	25.0	10.0	1		07/03/18 14:34			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Chloride	6.4	mg/L	0.25	0.024	1		07/04/18 00:54	16887-00-6		
Fluoride	0.43	mg/L	0.30	0.029	1		07/04/18 00:54	16984-48-8		
Sulfate	869	mg/L	20.0	0.34	20		07/07/18 19:37	14808-79-8		

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ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds
Pace Project No.: 266688

Sample: PZ-40		Lab ID: 266688003		Collected: 06/28/18 12:35		Received: 06/29/18 15:03		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00078	1	07/03/18 09:55	07/09/18 16:48	7440-36-0		
Arsenic	ND	mg/L	0.0050	0.00057	1	07/03/18 09:55	07/09/18 16:48	7440-38-2		
Barium	0.047	mg/L	0.010	0.00078	1	07/03/18 09:55	07/09/18 16:48	7440-39-3		
Beryllium	0.00029J	mg/L	0.0030	0.000050	1	07/03/18 09:55	07/09/18 16:48	7440-41-7		
Boron	0.16	mg/L	0.040	0.0039	1	07/03/18 09:55	07/09/18 16:48	7440-42-8		
Cadmium	ND	mg/L	0.0010	0.000093	1	07/03/18 09:55	07/09/18 16:48	7440-43-9		
Calcium	6.7	mg/L	0.50	0.014	1	07/03/18 09:55	07/09/18 16:48	7440-70-2		
Chromium	ND	mg/L	0.010	0.0016	1	07/03/18 09:55	07/09/18 16:48	7440-47-3		
Cobalt	ND	mg/L	0.010	0.00052	1	07/03/18 09:55	07/09/18 16:48	7440-48-4		
Lead	ND	mg/L	0.0050	0.00027	1	07/03/18 09:55	07/09/18 16:48	7439-92-1		
Lithium	ND	mg/L	0.050	0.00097	1	07/03/18 09:55	07/09/18 16:48	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.0019	1	07/03/18 09:55	07/09/18 16:48	7439-98-7		
Selenium	0.0032J	mg/L	0.010	0.0014	1	07/03/18 09:55	07/09/18 16:48	7782-49-2		
Thallium	ND	mg/L	0.0010	0.00014	1	07/03/18 09:55	07/09/18 16:48	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	0.000036J	mg/L	0.00050	0.000036	1	07/03/18 08:20	07/03/18 13:12	7439-97-6	B	
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	112	mg/L	25.0	10.0	1		07/03/18 14:35			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Chloride	5.0	mg/L	0.25	0.024	1		07/04/18 01:16	16887-00-6		
Fluoride	ND	mg/L	0.30	0.029	1		07/04/18 01:16	16984-48-8		
Sulfate	43.8	mg/L	1.0	0.017	1		07/04/18 01:16	14808-79-8		

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ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds

Pace Project No.: 266688

Sample: EB-1-6-28-18		Lab ID: 266688004		Collected: 06/28/18 12:45		Received: 06/29/18 15:03		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Antimony	ND	mg/L	0.0030	0.00078	1	07/03/18 09:55	07/09/18 16:54	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	07/03/18 09:55	07/09/18 16:54	7440-38-2	
Barium	ND	mg/L	0.010	0.00078	1	07/03/18 09:55	07/09/18 16:54	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	07/03/18 09:55	07/09/18 16:54	7440-41-7	
Boron	0.028J	mg/L	0.040	0.0039	1	07/03/18 09:55	07/09/18 16:54	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000093	1	07/03/18 09:55	07/09/18 16:54	7440-43-9	
Calcium	0.026J	mg/L	0.50	0.014	1	07/03/18 09:55	07/09/18 16:54	7440-70-2	B
Chromium	ND	mg/L	0.010	0.0016	1	07/03/18 09:55	07/09/18 16:54	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	07/03/18 09:55	07/09/18 16:54	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	07/03/18 09:55	07/09/18 16:54	7439-92-1	
Lithium	ND	mg/L	0.050	0.00097	1	07/03/18 09:55	07/09/18 16:54	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	07/03/18 09:55	07/09/18 16:54	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	07/03/18 09:55	07/09/18 16:54	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	07/03/18 09:55	07/09/18 16:54	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00050	0.000036	1	07/03/18 08:20	07/03/18 13:14	7439-97-6	
2540C Total Dissolved Solids		Analytical Method: SM 2540C							
Total Dissolved Solids	10.0J	mg/L	25.0	10.0	1		07/03/18 14:35		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Chloride	0.10J	mg/L	0.25	0.024	1		07/04/18 01:38	16887-00-6	B
Fluoride	ND	mg/L	0.30	0.029	1		07/04/18 01:38	16984-48-8	
Sulfate	ND	mg/L	1.0	0.017	1		07/04/18 01:38	14808-79-8	

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ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds

Pace Project No.: 266688

Sample: FB-1-6-28-18		Lab ID: 266688005		Collected: 06/28/18 12:00		Received: 06/29/18 15:03		Matrix: Water	
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Antimony	ND	mg/L	0.0030	0.00078	1	07/03/18 09:55	07/09/18 16:59	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	07/03/18 09:55	07/09/18 16:59	7440-38-2	
Barium	ND	mg/L	0.010	0.00078	1	07/03/18 09:55	07/09/18 16:59	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	07/03/18 09:55	07/09/18 16:59	7440-41-7	
Boron	0.021J	mg/L	0.040	0.0039	1	07/03/18 09:55	07/09/18 16:59	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000093	1	07/03/18 09:55	07/09/18 16:59	7440-43-9	
Calcium	0.037J	mg/L	0.50	0.014	1	07/03/18 09:55	07/09/18 16:59	7440-70-2	B
Chromium	ND	mg/L	0.010	0.0016	1	07/03/18 09:55	07/09/18 16:59	7440-47-3	
Cobalt	0.0010J	mg/L	0.010	0.00052	1	07/03/18 09:55	07/09/18 16:59	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	07/03/18 09:55	07/09/18 16:59	7439-92-1	
Lithium	ND	mg/L	0.050	0.00097	1	07/03/18 09:55	07/09/18 16:59	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	07/03/18 09:55	07/09/18 16:59	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	07/03/18 09:55	07/09/18 16:59	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	07/03/18 09:55	07/09/18 16:59	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00050	0.000036	1	07/03/18 08:20	07/03/18 13:16	7439-97-6	
2540C Total Dissolved Solids		Analytical Method: SM 2540C							
Total Dissolved Solids	ND	mg/L	25.0	10.0	1		07/03/18 14:35		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Chloride	0.12J	mg/L	0.25	0.024	1		07/04/18 02:00	16887-00-6	B
Fluoride	ND	mg/L	0.30	0.029	1		07/04/18 02:00	16984-48-8	
Sulfate	ND	mg/L	1.0	0.017	1		07/04/18 02:00	14808-79-8	

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ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds

Pace Project No.: 266688

Sample: PZ-37		Lab ID: 266688006		Collected: 06/29/18 09:05		Received: 06/29/18 15:03		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Antimony	ND	mg/L	0.0030	0.00078	1	07/03/18 09:55	07/09/18 17:05	7440-36-0	
Arsenic	0.0011J	mg/L	0.0050	0.00057	1	07/03/18 09:55	07/09/18 17:05	7440-38-2	
Barium	0.054	mg/L	0.010	0.00078	1	07/03/18 09:55	07/09/18 17:05	7440-39-3	
Beryllium	0.00033J	mg/L	0.0030	0.000050	1	07/03/18 09:55	07/09/18 17:05	7440-41-7	
Boron	20.6	mg/L	2.0	0.20	50	07/03/18 09:55	07/09/18 17:11	7440-42-8	
Cadmium	0.00099J	mg/L	0.0010	0.000093	1	07/03/18 09:55	07/09/18 17:05	7440-43-9	
Calcium	129	mg/L	25.0	0.69	50	07/03/18 09:55	07/09/18 17:11	7440-70-2	
Chromium	ND	mg/L	0.010	0.0016	1	07/03/18 09:55	07/09/18 17:05	7440-47-3	
Cobalt	0.013	mg/L	0.010	0.00052	1	07/03/18 09:55	07/09/18 17:05	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	07/03/18 09:55	07/09/18 17:05	7439-92-1	
Lithium	0.032J	mg/L	0.050	0.00097	1	07/03/18 09:55	07/09/18 17:05	7439-93-2	
Molybdenum	0.0021J	mg/L	0.010	0.0019	1	07/03/18 09:55	07/09/18 17:05	7439-98-7	
Selenium	0.26	mg/L	0.010	0.0014	1	07/03/18 09:55	07/09/18 17:05	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	07/03/18 09:55	07/09/18 17:05	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00050	0.000036	1	07/03/18 08:20	07/03/18 13:23	7439-97-6	
2540C Total Dissolved Solids		Analytical Method: SM 2540C							
Total Dissolved Solids	979	mg/L	25.0	10.0	1		07/03/18 14:35		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Chloride	5.7	mg/L	0.25	0.024	1		07/04/18 02:21	16887-00-6	
Fluoride	ND	mg/L	0.30	0.029	1		07/04/18 02:21	16984-48-8	
Sulfate	634	mg/L	20.0	0.34	20		07/09/18 17:06	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds
Pace Project No.: 266688

Sample: PZ-39		Lab ID: 266688007		Collected: 06/28/18 11:20		Received: 06/29/18 15:03		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00078	1	07/03/18 09:55	07/09/18 17:17	7440-36-0		
Arsenic	ND	mg/L	0.0050	0.00057	1	07/03/18 09:55	07/09/18 17:17	7440-38-2		
Barium	0.0078J	mg/L	0.010	0.00078	1	07/03/18 09:55	07/09/18 17:17	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000050	1	07/03/18 09:55	07/09/18 17:17	7440-41-7		
Boron	0.053	mg/L	0.040	0.0039	1	07/03/18 09:55	07/09/18 17:17	7440-42-8		
Cadmium	ND	mg/L	0.0010	0.000093	1	07/03/18 09:55	07/09/18 17:17	7440-43-9		
Calcium	1.4	mg/L	0.50	0.014	1	07/03/18 09:55	07/09/18 17:17	7440-70-2		
Chromium	ND	mg/L	0.010	0.0016	1	07/03/18 09:55	07/09/18 17:17	7440-47-3		
Cobalt	ND	mg/L	0.010	0.00052	1	07/03/18 09:55	07/09/18 17:17	7440-48-4		
Lead	ND	mg/L	0.0050	0.00027	1	07/03/18 09:55	07/09/18 17:17	7439-92-1		
Lithium	0.0026J	mg/L	0.050	0.00097	1	07/03/18 09:55	07/09/18 17:17	7439-93-2		
Molybdenum	0.0050J	mg/L	0.010	0.0019	1	07/03/18 09:55	07/09/18 17:17	7439-98-7		
Selenium	ND	mg/L	0.010	0.0014	1	07/03/18 09:55	07/09/18 17:17	7782-49-2		
Thallium	ND	mg/L	0.0010	0.00014	1	07/03/18 09:55	07/09/18 17:17	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.000036	1	07/03/18 08:20	07/03/18 13:26	7439-97-6		
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	88.0	mg/L	25.0	10.0	1		07/03/18 14:35			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Chloride	2.1	mg/L	0.25	0.024	1		07/04/18 02:43	16887-00-6		
Fluoride	ND	mg/L	0.30	0.029	1		07/04/18 02:43	16984-48-8		
Sulfate	22.0	mg/L	1.0	0.017	1		07/04/18 02:43	14808-79-8		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds
Pace Project No.: 266688

Sample: Dup-1		Lab ID: 266688008		Collected: 06/29/18 00:00		Received: 06/29/18 15:03		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00078	1	07/03/18 09:55	07/09/18 17:22	7440-36-0		
Arsenic	0.0011J	mg/L	0.0050	0.00057	1	07/03/18 09:55	07/09/18 17:22	7440-38-2		
Barium	0.056	mg/L	0.010	0.00078	1	07/03/18 09:55	07/09/18 17:22	7440-39-3		
Beryllium	0.00036J	mg/L	0.0030	0.000050	1	07/03/18 09:55	07/09/18 17:22	7440-41-7		
Boron	21.7	mg/L	2.0	0.20	50	07/03/18 09:55	07/09/18 17:28	7440-42-8		
Cadmium	0.0011	mg/L	0.0010	0.000093	1	07/03/18 09:55	07/09/18 17:22	7440-43-9		
Calcium	137	mg/L	25.0	0.69	50	07/03/18 09:55	07/09/18 17:28	7440-70-2		
Chromium	ND	mg/L	0.010	0.0016	1	07/03/18 09:55	07/09/18 17:22	7440-47-3		
Cobalt	0.014	mg/L	0.010	0.00052	1	07/03/18 09:55	07/09/18 17:22	7440-48-4		
Lead	ND	mg/L	0.0050	0.00027	1	07/03/18 09:55	07/09/18 17:22	7439-92-1		
Lithium	0.034J	mg/L	0.050	0.00097	1	07/03/18 09:55	07/09/18 17:22	7439-93-2		
Molybdenum	0.0020J	mg/L	0.010	0.0019	1	07/03/18 09:55	07/09/18 17:22	7439-98-7		
Selenium	0.29	mg/L	0.010	0.0014	1	07/03/18 09:55	07/09/18 17:22	7782-49-2		
Thallium	ND	mg/L	0.0010	0.00014	1	07/03/18 09:55	07/09/18 17:22	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	0.000036J	mg/L	0.00050	0.000036	1	07/03/18 08:20	07/03/18 13:28	7439-97-6	B	
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	995	mg/L	25.0	10.0	1		07/03/18 14:35			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Chloride	5.8	mg/L	0.25	0.024	1		07/04/18 03:05	16887-00-6		
Fluoride	ND	mg/L	0.30	0.029	1		07/04/18 03:05	16984-48-8		
Sulfate	627	mg/L	20.0	0.34	20		07/09/18 17:27	14808-79-8		

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Yates Ash Ponds

Pace Project No.: 266688

QC Batch: 9168 Analysis Method: EPA 7470A
 QC Batch Method: EPA 7470A Analysis Description: 7470 Mercury
 Associated Lab Samples: 266688001, 266688002, 266688003, 266688004, 266688005, 266688006, 266688007, 266688008

METHOD BLANK: 41848 Matrix: Water
 Associated Lab Samples: 266688001, 266688002, 266688003, 266688004, 266688005, 266688006, 266688007, 266688008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	0.000040J	0.00050	0.000036	07/03/18 12:29	

LABORATORY CONTROL SAMPLE: 41849

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	.0025	0.0025	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 41850 41851

Parameter	Units	266662001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	mg/L	ND	.0025	.0025	0.0025	0.0025	98	100	75-125	2	20	

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QUALITY CONTROL DATA

Project: Plant Yates Ash Ponds
Pace Project No.: 266688

QC Batch: 9204 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020B MET
Associated Lab Samples: 266688001, 266688002, 266688003, 266688004, 266688005, 266688006, 266688007, 266688008

METHOD BLANK: 41980 Matrix: Water
Associated Lab Samples: 266688001, 266688002, 266688003, 266688004, 266688005, 266688006, 266688007, 266688008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00078	07/09/18 15:28	
Arsenic	mg/L	ND	0.0050	0.00057	07/09/18 15:28	
Barium	mg/L	ND	0.010	0.00078	07/09/18 15:28	
Beryllium	mg/L	ND	0.0030	0.000050	07/09/18 15:28	
Boron	mg/L	ND	0.040	0.0039	07/09/18 15:28	
Cadmium	mg/L	ND	0.0010	0.000093	07/09/18 15:28	
Calcium	mg/L	0.038J	0.50	0.014	07/09/18 15:28	
Chromium	mg/L	ND	0.010	0.0016	07/09/18 15:28	
Cobalt	mg/L	ND	0.010	0.00052	07/09/18 15:28	
Lead	mg/L	ND	0.0050	0.00027	07/09/18 15:28	
Lithium	mg/L	ND	0.050	0.00097	07/09/18 15:28	
Molybdenum	mg/L	ND	0.010	0.0019	07/09/18 15:28	
Selenium	mg/L	ND	0.010	0.0014	07/09/18 15:28	
Thallium	mg/L	ND	0.0010	0.00014	07/09/18 15:28	

LABORATORY CONTROL SAMPLE: 41981

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	.1	0.11	108	80-120	
Arsenic	mg/L	.1	0.10	104	80-120	
Barium	mg/L	.1	0.10	101	80-120	
Beryllium	mg/L	.1	0.11	111	80-120	
Boron	mg/L	1	1.1	106	80-120	
Cadmium	mg/L	.1	0.10	103	80-120	
Calcium	mg/L	1	1.1	114	80-120	
Chromium	mg/L	.1	0.11	106	80-120	
Cobalt	mg/L	.1	0.11	105	80-120	
Lead	mg/L	.1	0.10	104	80-120	
Lithium	mg/L	.1	0.12	116	80-120	
Molybdenum	mg/L	.1	0.10	104	80-120	
Selenium	mg/L	.1	0.11	106	80-120	
Thallium	mg/L	.1	0.10	104	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 42006 42007

Parameter	Units	266688001 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
			Spike Conc.	MS Result	MSD Result						
Antimony	mg/L	ND	.1	0.11	0.11	106	108	75-125	2	20	

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QUALITY CONTROL DATA

Project: Plant Yates Ash Ponds

Pace Project No.: 266688

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 42006			42007									
Parameter	Units	266688001 Result	MS	MSD	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	RPD	Qual
			Spike Conc.	Spike Conc.								
Arsenic	mg/L	0.00062J	.1	.1	0.10	0.11	104	108	75-125	3	20	
Barium	mg/L	0.028	.1	.1	0.13	0.13	101	99	75-125	2	20	
Beryllium	mg/L	0.0038	.1	.1	0.11	0.11	105	102	75-125	3	20	
Boron	mg/L	14.1	1	1	16.0	16.1	192	193	75-125	0	20	
Cadmium	mg/L	0.00025J	.1	.1	0.10	0.11	104	105	75-125	2	20	
Calcium	mg/L	42.2	1	1	44.1	43.6	195	141	75-125	1	20	M6
Chromium	mg/L	ND	.1	.1	0.11	0.10	108	103	75-125	5	20	
Cobalt	mg/L	0.00069J	.1	.1	0.11	0.10	105	104	75-125	1	20	
Lead	mg/L	0.0011J	.1	.1	0.10	0.10	98	101	75-125	2	20	
Lithium	mg/L	0.0042J	.1	.1	0.11	0.11	104	102	75-125	2	20	
Molybdenum	mg/L	ND	.1	.1	0.11	0.11	105	105	75-125	0	20	
Selenium	mg/L	0.066	.1	.1	0.18	0.18	109	114	75-125	3	20	
Thallium	mg/L	ND	.1	.1	0.10	0.10	100	100	75-125	1	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Yates Ash Ponds

Pace Project No.: 266688

QC Batch: 9106

Analysis Method: SM 2540C

QC Batch Method: SM 2540C

Analysis Description: 2540C Total Dissolved Solids

Associated Lab Samples: 266688001, 266688002, 266688003, 266688004, 266688005, 266688006, 266688007, 266688008

LABORATORY CONTROL SAMPLE: 41707

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	405	101	84-108	

SAMPLE DUPLICATE: 41708

Parameter	Units	266622002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	960	986	3	10	

SAMPLE DUPLICATE: 41711

Parameter	Units	266662006 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	14.0	15.0J	7	10	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Yates Ash Ponds
Pace Project No.: 266688

QC Batch: 9216 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 266688001, 266688002, 266688003, 266688004, 266688005, 266688006, 266688007, 266688008

METHOD BLANK: 42027 Matrix: Water
Associated Lab Samples: 266688001, 266688002, 266688003, 266688004, 266688005, 266688006, 266688007, 266688008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	0.11J	0.25	0.024	07/03/18 18:10	
Fluoride	mg/L	ND	0.30	0.029	07/03/18 18:10	
Sulfate	mg/L	ND	1.0	0.017	07/03/18 18:10	

LABORATORY CONTROL SAMPLE: 42028

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	10	10	100	90-110	
Fluoride	mg/L	10	10.9	109	90-110	
Sulfate	mg/L	10	9.9	99	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 42029 42030

Parameter	Units	266662001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	9.0	10	10	15.2	15.4	62	64	90-110	1	15	M1
Fluoride	mg/L	0.51	10	10	11.4	11.7	109	112	90-110	2	15	M1
Sulfate	mg/L	284	10	10	199	199	-849	-848	90-110	0	15	E, M1

MATRIX SPIKE SAMPLE: 42031

Parameter	Units	266662002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	2.1	10	11.8	97	90-110	
Fluoride	mg/L	ND	10	11.4	114	90-110	M1
Sulfate	mg/L	0.24J	10	10.1	99	90-110	

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REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: Plant Yates Ash Ponds
Pace Project No.: 266688

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

B Analyte was detected in the associated method blank.

E Analyte concentration exceeded the calibration range. The reported result is estimated.

M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

M6 Matrix spike and Matrix spike duplicate recovery not evaluated against control limits due to sample dilution.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Yates Ash Ponds
Pace Project No.: 266688

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
266688001	PZ-41	EPA 3005A	9204	EPA 6020B	9327
266688002	PZ-38	EPA 3005A	9204	EPA 6020B	9327
266688003	PZ-40	EPA 3005A	9204	EPA 6020B	9327
266688004	EB-1-6-28-18	EPA 3005A	9204	EPA 6020B	9327
266688005	FB-1-6-28-18	EPA 3005A	9204	EPA 6020B	9327
266688006	PZ-37	EPA 3005A	9204	EPA 6020B	9327
266688007	PZ-39	EPA 3005A	9204	EPA 6020B	9327
266688008	Dup-1	EPA 3005A	9204	EPA 6020B	9327
266688001	PZ-41	EPA 7470A	9168	EPA 7470A	9224
266688002	PZ-38	EPA 7470A	9168	EPA 7470A	9224
266688003	PZ-40	EPA 7470A	9168	EPA 7470A	9224
266688004	EB-1-6-28-18	EPA 7470A	9168	EPA 7470A	9224
266688005	FB-1-6-28-18	EPA 7470A	9168	EPA 7470A	9224
266688006	PZ-37	EPA 7470A	9168	EPA 7470A	9224
266688007	PZ-39	EPA 7470A	9168	EPA 7470A	9224
266688008	Dup-1	EPA 7470A	9168	EPA 7470A	9224
266688001	PZ-41	SM 2540C	9106		
266688002	PZ-38	SM 2540C	9106		
266688003	PZ-40	SM 2540C	9106		
266688004	EB-1-6-28-18	SM 2540C	9106		
266688005	FB-1-6-28-18	SM 2540C	9106		
266688006	PZ-37	SM 2540C	9106		
266688007	PZ-39	SM 2540C	9106		
266688008	Dup-1	SM 2540C	9106		
266688001	PZ-41	EPA 300.0	9216		
266688002	PZ-38	EPA 300.0	9216		
266688003	PZ-40	EPA 300.0	9216		
266688004	EB-1-6-28-18	EPA 300.0	9216		
266688005	FB-1-6-28-18	EPA 300.0	9216		
266688006	PZ-37	EPA 300.0	9216		
266688007	PZ-39	EPA 300.0	9216		
266688008	Dup-1	EPA 300.0	9216		

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, Inc.
 110 TECHNOLOGY PARKWAY, PEACHTREE CORNERS, GA 30092
 (770) 734-4200 : FAX (770) 734-4201 : www.asi-lab.com

PAGE: _____ OF _____

CLIENT NAME: Georgia Power
 CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER:
 241 Ralph McGill Blvd SE B10185
 Atlanta, GA 30308
 404-506-7239

REPORT TO: Joju Abraham
 CC: Maria Padilla
 Health McConkle
 REQUESTED COMPLETION DATE: laburch@southernco.com

PROJECT NAME/STATE: Plant Yates - Additional Phase 2 Facility Wells
 Phase 2 CCR

CONTAINER TYPE	PRESERVATION	ANALYSIS REQUESTED							CONTAINER TYPE	PRESERVATION	REMARKS/ADDITIONAL INFORMATION
		# of	P	P	P	P	P	P			
P - PLASTIC	1 - HCl, 56°C	3									
A - AMBER GLASS	2 - H ₂ SO ₄ , 56°C										
G - CLEAR GLASS	3 - HNO ₃										
V - VOA VIAL	4 - NaOH, 56°C										
S - STERILE	5 - NaOH/H ₂ NAc, 56°C										
O - OTHER	6 - Na ₂ S ₂ O ₃ , 56°C										
	7 - 56°C not frozen										

NO# : 266688



CONTAINER TYPE	PRESERVATION	# of	METALS APP. III & IV (EPA 8020/7470)	CI, F, TO, & TDS (EPA 800.0 & SM 2540C)	RADIUM 226 & 228 (SW-646 9315/9320)
		5	✓	✓	✓
		5	✓	✓	✓
		5	✓	✓	✓
		5	✓	✓	✓
		5	✓	✓	✓
		5	✓	✓	✓
		5	✓	✓	✓

SAMPLED BY AND TITLE: Acc
 RECEIVED BY: *[Signature]*
 DATE/TIME: 6/29/18
 DATE/TIME: 6/29/18
 DATE/TIME: 6/29/18
 RECEIVED BY LAB: *[Signature]*
 DATE/TIME: 6/29/18
 TEMPERATURE: 3.4
 YES No NA
 Broken Not Present

Sample Condition Upon Receipt



Client Name: GLA Power

Project # _____

Courier: Fed Ex UPS USPS Client Commercial Pace Other

Tracking #: _____

WO#: 266688

PM: BM Due Date: 07/09/18

Custody Seal on Cooler/Box Present: yes no Seals intact: yes no

CLIENT: GAPower-CCR

Packing Material: Bubble Wrap Bubble Bags None Other

Thermometer Used 83

Type of Ice: Wet Blue None

Samples on ice, cooling process has begun

Cooler Temperature 3.4

Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: 6/29/18 MK

Temp should be above freezing to 6°C

Comments: _____

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.		
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.		
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.		
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.		
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.		
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.		
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.		
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.		
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.		
Pace Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A			
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.		
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.		
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.		
Includes date/time/ID/Analysis Matrix:	<u>GLW</u>			
All containers needing preservation have been checked.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	13.		
All containers needing preservation are found to be in compliance with EPA recommendation.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A			
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Initial when completed	Lot # of added preservative	
Samples checked for dechlorination:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.		
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.		
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	16.		
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A			
Pace Trip Blank Lot # (if purchased):	_____			

Client Notification/ Resolution:

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Field Data Required? Y N

Project Manager Review: _____

Date: _____

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNP Certification Office i.e. out of hold, incorrect preservative, out of temp, incorrect containers

July 30, 2018

Joju Abraham
Georgia Power - Coal Combustion Residuals
2480 Maner Road
Atlanta, GA 30339

RE: Project: Plant Yates Ash Ponds
Pace Project No.: 266689

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on June 29, 2018. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Betsy McDaniel
betsy.mcdaniel@pacelabs.com
(770)734-4200
Project Manager

Enclosures

cc: Maria Padilla, Georgia Power
Chris Parker, Atlantic Coast Consulting
Evan Perry, Atlantic Coast Consulting
Lauren Petty, Southern Company Services, Inc.
Rebecca Thornton, Pace Analytical Atlanta



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: Plant Yates Ash Ponds
Pace Project No.: 266689

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
Delaware Certification
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA180012
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: 2017020
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991

Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572018-1
New Hampshire/TNI Certification #: 297617
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-010
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: 02867
Texas/TNI Certification #: T104704188-17-3
Utah/TNI Certification #: PA014572017-9
USDA Soil Permit #: P330-17-00091
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 9526
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad
Wyoming Certification #: 8TMS-L

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SAMPLE SUMMARY

Project: Plant Yates Ash Ponds
Pace Project No.: 266689

Lab ID	Sample ID	Matrix	Date Collected	Date Received
266689001	PZ-41	Water	06/27/18 13:45	06/29/18 15:03
266689002	PZ-38	Water	06/28/18 11:10	06/29/18 15:03
266689003	PZ-40	Water	06/28/18 12:35	06/29/18 15:03
266689004	EB-1-6-28-18	Water	06/28/18 12:45	06/29/18 15:03
266689005	FB-1-6-28-18	Water	06/28/18 12:00	06/29/18 15:03
266689006	PZ-37	Water	06/29/18 09:05	06/29/18 15:03
266689007	PZ-39	Water	06/28/18 11:20	06/29/18 15:03
266689008	Dup-1	Water	06/29/18 00:00	06/29/18 15:03

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SAMPLE ANALYTE COUNT

Project: Plant Yates Ash Ponds

Pace Project No.: 266689

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
266689001	PZ-41	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
266689002	PZ-38	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
266689003	PZ-40	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
266689004	EB-1-6-28-18	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
266689005	FB-1-6-28-18	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
266689006	PZ-37	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
266689007	PZ-39	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
266689008	Dup-1	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds

Pace Project No.: 266689

Sample: PZ-41 **Lab ID: 266689001** Collected: 06/27/18 13:45 Received: 06/29/18 15:03 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.429 ± 0.197 (0.261) C:87% T:NA	pCi/L	07/17/18 08:16	13982-63-3	
Radium-228	EPA 9320	-0.486 ± 0.475 (1.22) C:74% T:70%	pCi/L	07/24/18 18:40	15262-20-1	
Total Radium	Total Radium Calculation	0.429 ± 0.672 (1.48)	pCi/L	07/25/18 15:31	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds

Pace Project No.: 266689

Sample: PZ-38 **Lab ID: 266689002** Collected: 06/28/18 11:10 Received: 06/29/18 15:03 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.488 ± 0.229 (0.319) C:94% T:NA	pCi/L	07/16/18 09:42	13982-63-3	
Radium-228	EPA 9320	0.571 ± 0.576 (1.19) C:72% T:77%	pCi/L	07/24/18 18:40	15262-20-1	
Total Radium	Total Radium Calculation	1.06 ± 0.805 (1.51)	pCi/L	07/25/18 15:31	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds

Pace Project No.: 266689

Sample: PZ-40 **Lab ID: 266689003** Collected: 06/28/18 12:35 Received: 06/29/18 15:03 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.540 ± 0.222 (0.225) C:92% T:NA	pCi/L	07/16/18 09:42	13982-63-3	
Radium-228	EPA 9320	0.744 ± 0.450 (0.834) C:74% T:77%	pCi/L	07/24/18 16:12	15262-20-1	
Total Radium	Total Radium Calculation	1.28 ± 0.672 (1.06)	pCi/L	07/25/18 15:31	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds

Pace Project No.: 266689

Sample: EB-1-6-28-18 **Lab ID: 266689004** Collected: 06/28/18 12:45 Received: 06/29/18 15:03 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.365 ± 0.189 (0.248) C:87% T:NA	pCi/L	07/16/18 09:42	13982-63-3	
Radium-228	EPA 9320	0.589 ± 0.523 (1.07) C:70% T:75%	pCi/L	07/24/18 16:13	15262-20-1	
Total Radium	Total Radium Calculation	0.954 ± 0.712 (1.32)	pCi/L	07/25/18 15:31	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds

Pace Project No.: 266689

Sample: FB-1-6-28-18 **Lab ID: 266689005** Collected: 06/28/18 12:00 Received: 06/29/18 15:03 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.248 ± 0.178 (0.289) C:78% T:NA	pCi/L	07/16/18 09:43	13982-63-3	
Radium-228	EPA 9320	0.587 ± 0.467 (0.929) C:69% T:80%	pCi/L	07/24/18 16:13	15262-20-1	
Total Radium	Total Radium Calculation	0.835 ± 0.645 (1.22)	pCi/L	07/25/18 15:31	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds

Pace Project No.: 266689

Sample: PZ-37 **Lab ID: 266689006** Collected: 06/29/18 09:05 Received: 06/29/18 15:03 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.752 ± 0.283 (0.270) C:80% T:NA	pCi/L	07/16/18 09:43	13982-63-3	
Radium-228	EPA 9320	0.941 ± 0.440 (0.745) C:75% T:86%	pCi/L	07/24/18 16:13	15262-20-1	
Total Radium	Total Radium Calculation	1.69 ± 0.723 (1.02)	pCi/L	07/27/18 14:50	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds

Pace Project No.: 266689

Sample: PZ-39 **Lab ID: 266689007** Collected: 06/28/18 11:20 Received: 06/29/18 15:03 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.283 ± 0.187 (0.308) C:89% T:NA	pCi/L	07/16/18 09:43	13982-63-3	
Radium-228	EPA 9320	-0.311 ± 0.384 (0.951) C:72% T:80%	pCi/L	07/24/18 16:13	15262-20-1	
Total Radium	Total Radium Calculation	0.283 ± 0.571 (1.26)	pCi/L	07/27/18 14:50	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds

Pace Project No.: 266689

Sample: Dup-1 **Lab ID: 266689008** Collected: 06/29/18 00:00 Received: 06/29/18 15:03 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.570 ± 0.242 (0.243) C:85% T:NA	pCi/L	07/16/18 09:46	13982-63-3	
Radium-228	EPA 9320	0.610 ± 0.426 (0.825) C:71% T:79%	pCi/L	07/25/18 14:33	15262-20-1	
Total Radium	Total Radium Calculation	1.18 ± 0.668 (1.07)	pCi/L	07/27/18 14:50	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds

Pace Project No.: 266689

QC Batch: 305323 Analysis Method: EPA 9315

QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium

Associated Lab Samples: 266689002, 266689003, 266689004, 266689005, 266689006, 266689007, 266689008

METHOD BLANK: 1493261 Matrix: Water

Associated Lab Samples: 266689002, 266689003, 266689004, 266689005, 266689006, 266689007, 266689008

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.239 ± 0.154 (0.219) C:98% T:NA	pCi/L	07/16/18 08:15	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds

Pace Project No.: 266689

QC Batch: 304670

Analysis Method: EPA 9315

QC Batch Method: EPA 9315

Analysis Description: 9315 Total Radium

Associated Lab Samples: 266689001

METHOD BLANK: 1490536

Matrix: Water

Associated Lab Samples: 266689001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.280 ± 0.163 (0.233) C:95% T:NA	pCi/L	07/16/18 09:43	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds

Pace Project No.: 266689

QC Batch: 305493

Analysis Method: EPA 9320

QC Batch Method: EPA 9320

Analysis Description: 9320 Radium 228

Associated Lab Samples: 266689008

METHOD BLANK: 1494006

Matrix: Water

Associated Lab Samples: 266689008

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.330 ± 0.315 (0.644) C:74% T:91%	pCi/L	07/25/18 14:33	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds

Pace Project No.: 266689

QC Batch: 304671

Analysis Method: EPA 9320

QC Batch Method: EPA 9320

Analysis Description: 9320 Radium 228

Associated Lab Samples: 266689001, 266689002, 266689003, 266689004, 266689005, 266689006, 266689007

METHOD BLANK: 1490537

Matrix: Water

Associated Lab Samples: 266689001, 266689002, 266689003, 266689004, 266689005, 266689006, 266689007

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	1.09 ± 0.430 (0.652) C:77% T:86%	pCi/L	07/24/18 12:59	1A

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: Plant Yates Ash Ponds
Pace Project No.: 266689

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval).

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-PA Pace Analytical Services - Greensburg

ANALYTE QUALIFIERS

1A Ra-228 Method blank activity greater than the RL of 1.0 pCi/L. Sample results less than the CRDL are reportable without qualification.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Yates Ash Ponds
Pace Project No.: 266689

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
266689001	PZ-41	EPA 9315	304670		
266689002	PZ-38	EPA 9315	305323		
266689003	PZ-40	EPA 9315	305323		
266689004	EB-1-6-28-18	EPA 9315	305323		
266689005	FB-1-6-28-18	EPA 9315	305323		
266689006	PZ-37	EPA 9315	305323		
266689007	PZ-39	EPA 9315	305323		
266689008	Dup-1	EPA 9315	305323		
266689001	PZ-41	EPA 9320	304671		
266689002	PZ-38	EPA 9320	304671		
266689003	PZ-40	EPA 9320	304671		
266689004	EB-1-6-28-18	EPA 9320	304671		
266689005	FB-1-6-28-18	EPA 9320	304671		
266689006	PZ-37	EPA 9320	304671		
266689007	PZ-39	EPA 9320	304671		
266689008	Dup-1	EPA 9320	305493		
266689001	PZ-41	Total Radium Calculation	307149		
266689002	PZ-38	Total Radium Calculation	307149		
266689003	PZ-40	Total Radium Calculation	307149		
266689004	EB-1-6-28-18	Total Radium Calculation	307149		
266689005	FB-1-6-28-18	Total Radium Calculation	307149		
266689006	PZ-37	Total Radium Calculation	307481		
266689007	PZ-39	Total Radium Calculation	307481		
266689008	Dup-1	Total Radium Calculation	307481		

REPORT OF LABORATORY ANALYSIS

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CHAIN OF CUSTODY RECORD

Pace Analytical Services, Inc.
 110 TECHNOLOGY PARKWAY, PEACHTREE CORNERS, GA 30092
 (770) 734-4200 : FAX (770) 734-4201 : www.asi-lab.com

PAGE: _____ OF _____

CLIENT NAME: Georgia Power		CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER: 241 Ralph McGill Blvd SE B10185 Atlanta, GA 30308 404-506-7239		REPORT TO: Joju Abraham CC: Maria Padilla Heath McCorkle PO #: laburch@southernco.com		PROJECT NAME/STATE: Plant Yates - Additional Phase 2 Facility Wells		PROJECT #: Phase 2 CCR	
Collection DATE	Collection TIME	MATRIX CODE*	CORNER	SAMPLE IDENTIFICATION	CONTAINER TYPE	ANALYSIS REQUESTED	CONTAINER TYPE	ANALYSIS REQUESTED	REMARKS/ADDITIONAL INFORMATION
6-27-18	1345	GW	X	PZ-41	5	Metals App III & IV (FPA 6020/7470)	P	3	
6-28-18	1110	GW	X	PZ-38	5	Metals App III & IV (FPA 6020/7470)	P	7	
6-28-18	1235	GW	X	PZ-40	5	Metals App III & IV (FPA 6020/7470)	P	3	
6-28-18	1245	GW	X	EB-1-6-28-18	5	Metals App III & IV (FPA 6020/7470)	P	3	
6-28-18	1200	W	X	FB-1-6-28-18	5	Metals App III & IV (FPA 6020/7470)	P	3	
6-29-18	0905	GW	X	PZ-37	5	Metals App III & IV (FPA 6020/7470)	P	3	
6-28-18	1120	GW	X	PZ-39	5	Metals App III & IV (FPA 6020/7470)	P	3	
6-29-18		GW	X	Dep 1	5	Metals App III & IV (FPA 6020/7470)	P	3	

WO# : 266689



266689

SAMPLED BY AND TITLE: [Signature]	DATE/TIME: 6/29/18	LAB #: 1503
RECEIVED BY: [Signature]	DATE/TIME: [Blank]	FOR LAB USE ONLY
RECEIVED BY LAB: [Signature]	DATE/TIME: 06/29/18	Entered into LIMS: Tracking #:
TEMPERATURE: [Blank]	INITIALS: [Blank]	CLIENT: OTHER FS

APP III and IV

Sample Condition Upon Receipt



Client Name: GLA Power

Project # _____

Courier: Fed Ex UPS USPS Client Commercial Pace Other

WO#: 266689

PM: **BM** Due Date: **07/30/18**
 CLIENT: **GAPower-CCR**

Tracking #: _____
 Custody Seal on Cooler/Box Present: yes no Seals intact: yes no

Packing Material: Bubble Wrap Bubble Bags None Other _____

Thermometer Used 83 Type of Ice: Wet Blue None

Samples on ice, cooling process has begun
 Date and initials of person examining contents: 6/29/18 MR

Cooler Temperature 3.4 Biological Tissue is Frozen: Yes No
 Temp should be above freezing to 6°C

Item	Yes	No	N/A	Comments
Chain of Custody Present:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5.
Short Hold Time Analysis (<72hr):	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	6.
Rush Turn Around Time Requested:	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	7.
Sufficient Volume:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	8.
Correct Containers Used:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	9.
Pace Containers Used:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Containers Intact:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	11.
Sample Labels match COC:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	12.
-Includes date/time/ID/Analysis Matrix: <u>GLW</u>				
All containers needing preservation have been checked.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water):	<input type="checkbox"/>	<input checked="" type="checkbox"/>		Initial when completed
Samples checked for dechlorination:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	14.
Headspace in VOA Vials (>6mm):	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	15.
Trip Blank Present:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	16.
Trip Blank Custody Seals Present	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Pace Trip Blank Lot # (if purchased):				

Client Notification/ Resolution:
 Person Contacted: _____ Date/Time: _____
 Comments/ Resolution: _____

Field Data Required? Y N

Project Manager Review: _____ **Date:** _____

Product Name: Low-Flow System

Date: 2018-08-06 16:15:16

Project Information:

Operator Name Ryan Walker
Company Name Atlantic Coast Consulting
Project Name Plant Yates- Phase 2 Additional
Site Name Plant Yates-Phase 2-CCR
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 573204
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED Bladder
Tubing Type poly
Tubing Diameter .25 in
Tubing Length 47 ft

Pump placement from TOC 42 ft

Well Information:

Well ID PZ-37
Well diameter 2 in
Well Total Depth 46.9 ft
Screen Length 10 ft
Depth to Water 14.57 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 1.505776 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 2.7 in
Total Volume Pumped 6.25 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%	+/- 0		+/- 10%	+/- 10
Last 5	15:53:13	600.04	21.09	5.60	1171.16	5.40	14.80	0.53	91.71
Last 5	15:58:13	900.03	21.09	5.57	1177.91	4.43	14.80	0.39	97.35
Last 5	16:03:13	1200.03	21.00	5.57	1182.69	3.89	14.80	0.25	101.09
Last 5	16:08:13	1500.02	21.09	5.56	1186.05	3.04	14.80	0.19	102.33
Last 5	16:13:13	1800.00	21.00	5.52	1193.50	2.16	14.80	0.22	105.25
Variance 0			-0.08	-0.00	4.79			-0.14	3.74
Variance 1			0.09	-0.01	3.36			-0.06	1.25
Variance 2			-0.09	-0.04	7.45			0.03	2.92

Notes

Sample at 16:13. Sunny 90's.

Grab Samples

Product Name: Low-Flow System

Date: 2018-08-07 09:51:30

Project Information:

Operator Name Ryan Walker
Company Name Atlantic Coast Consulting
Project Name Plant Yates- Phase 2 Additional
Site Name Plant Yates-Phase 2-CCR
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 573204
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED Bladder
Tubing Type poly
Tubing Diameter .25 in
Tubing Length 50 ft

Pump placement from TOC 45 ft

Well Information:

Well ID PZ-38
Well diameter 2 in
Well Total Depth 50.12 ft
Screen Length 10 ft
Depth to Water 31.15 ft

Pumping Information:

Final Pumping Rate 140 mL/min
Total System Volume 1.475932 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0 in
Total Volume Pumped 5.25 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%	+/- 0		+/- 10%	+/- 10
Last 5	09:23:33	1201.02	19.98	4.70	1407.04	0.45	--	0.48	244.16
Last 5	09:28:33	1501.01	19.97	4.71	1403.94	0.54	--	0.47	228.37
Last 5	09:33:33	1801.01	20.06	4.72	1404.39	0.59	--	0.40	225.23
Last 5	09:38:36	2104.01	20.07	4.71	1402.78	0.52	--	0.38	219.08
Last 5	09:48:36	2703.99	20.13	4.72	1401.22	0.51	--	0.44	209.88
Variance 0			0.09	0.01	0.45			-0.07	-3.14
Variance 1			0.01	-0.00	-1.62			-0.02	-6.16
Variance 2			0.06	0.00	-1.56			0.05	-9.19

Notes

Sampled at 09:48. Sunny 80's. Transducer in made it that getting WL readings not possible.

Grab Samples

Product Name: Low-Flow System

Date: 2018-08-07 11:36:11

Project Information:

Operator Name Ryan Walker
Company Name Atlantic Coast Consulting
Project Name Plant Yates- Phase 2 Additional
Site Name Plant Yates-Phase 2-CCR
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 573204
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED Bladder
Tubing Type poly
Tubing Diameter .25 in
Tubing Length 68 ft

Pump placement from TOC 63 ft

Well Information:

Well ID PZ-39
Well diameter 2 in
Well Total Depth 68.50 ft
Screen Length 10 ft
Depth to Water 24.33 ft

Pumping Information:

Final Pumping Rate 170 mL/min
Total System Volume 1.046386 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 5.6 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			+/- 10	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 10
Last 5	11:15:01	1500.02	19.75	6.09	74.50	1.33	24.80	3.57	134.26
Last 5	11:20:01	1800.01	19.75	6.10	74.30	1.22	24.80	3.76	132.00
Last 5	11:25:01	2100.03	19.72	6.09	74.04	1.10	24.80	3.82	130.24
Last 5	11:30:01	2400.01	19.68	6.09	73.65	1.25	24.80	3.88	129.21
Last 5	11:35:01	2700.00	19.75	6.08	73.41	1.24	24.80	3.94	127.83
Variance 0			-0.04	-0.01	-0.26			0.06	-1.76
Variance 1			-0.03	0.00	-0.39			0.05	-1.03
Variance 2			0.07	-0.01	-0.24			0.06	-1.38

Notes

Sampled at 11:35. Sunny 90's.

Grab Samples

Product Name: Low-Flow System

Date: 2018-08-07 13:03:42

Project Information:

Operator Name Ryan Walker
Company Name Atlantic Coast Consulting
Project Name Plant Yates- Phase 2 Additional
Site Name Plant Yates-Phase 2-CCR
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 573204
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED Bladder
Tubing Type poly
Tubing Diameter .25 in
Tubing Length 48 ft

Pump placement from TOC 43 ft

Well Information:

Well ID PZ-40
Well diameter 2 in
Well Total Depth 48.35 ft
Screen Length 10 ft
Depth to Water 26.60 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.853331 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 12 in
Total Volume Pumped 8.5 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%	+/- 0		+/- 10%	+/- 10
Last 5	12:42:59	1200.03	19.86	5.18	122.39	0.78	27.60	5.07	182.62
Last 5	12:47:59	1500.02	19.77	5.19	124.94	0.84	27.60	5.20	178.06
Last 5	12:53:00	1801.00	19.75	5.18	125.04	1.61	27.60	5.16	174.85
Last 5	12:58:00	2101.00	19.58	5.18	125.68	1.21	27.60	5.19	172.58
Last 5	13:03:00	2400.98	19.36	5.18	126.10	0.77	27.60	5.23	168.16
Variance 0			-0.02	-0.00	0.10			-0.04	-3.21
Variance 1			-0.17	-0.00	0.64			0.03	-2.26
Variance 2			-0.22	0.00	0.42			0.03	-4.42

Notes

Sampled at 13:02. Cloudy 90's. EB-1 here.

Grab Samples

Product Name: Low-Flow System

Date: 2018-08-07 14:19:16

Project Information:

Operator Name Ryan Walker
Company Name Atlantic Coast Consulting
Project Name Plant Yates- Phase 2 Additional
Site Name Plant Yates-Phase 2-CCR
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 573204
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED Bladder
Tubing Type poly
Tubing Diameter .25 in
Tubing Length 67 ft

Pump placement from TOC 62 ft

Well Information:

Well ID PZ-41
Well diameter 2 in
Well Total Depth 67.70 ft
Screen Length 10 ft
Depth to Water 27.81 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 1.036733 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 10.7 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			+/- 10	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 10
Last 5	13:57:59	900.04	20.05	4.76	666.93	1.22	28.70	1.59	211.87
Last 5	14:02:59	1200.01	19.78	4.77	671.42	0.82	28.70	1.64	199.57
Last 5	14:08:00	1501.02	19.70	4.77	668.20	0.70	28.70	1.67	190.39
Last 5	14:13:00	1801.00	19.54	4.77	670.16	0.87	28.70	1.74	182.36
Last 5	14:18:00	2101.01	19.50	4.77	671.42	0.92	28.70	1.84	176.66
Variance 0			-0.08	-0.00	-3.22			0.03	-9.19
Variance 1			-0.16	0.00	1.96			0.06	-8.02
Variance 2			-0.04	-0.00	1.25			0.11	-5.71

Notes

Sampled at 14:18. Cloudy 90's.

Grab Samples

August 15, 2018

Joju Abraham
Georgia Power - Coal Combustion Residuals
2480 Maner Road
Atlanta, GA 30339

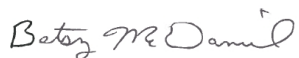
RE: Project: Plant Yates Phase II
Pace Project No.: 267950

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on August 08, 2018. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Betsy McDaniel
betsy.mcdaniel@pacelabs.com
(770)734-4200
Project Manager

Enclosures

cc: Maria Padilla, Georgia Power
Chris Parker, Atlantic Coast Consulting
Evan Perry, Atlantic Coast Consulting
Lauren Petty, Southern Company Services, Inc.
Rebecca Thornton, Pace Analytical Atlanta



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: Plant Yates Phase II

Pace Project No.: 267950

Atlanta Certification IDs

110 Technology Parkway Peachtree Corners, GA 30092

Florida DOH Certification #: E87315

Georgia DW Inorganics Certification #: 812

Georgia DW Microbiology Certification #: 812

North Carolina Certification #: 381

South Carolina Certification #: 98011001

Texas Certification #: T104704397-08-TX

Virginia Certification #: 460204

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SAMPLE SUMMARY

Project: Plant Yates Phase II

Pace Project No.: 267950

Lab ID	Sample ID	Matrix	Date Collected	Date Received
267950001	PZ-37	Water	08/06/18 16:13	08/08/18 09:43
267950002	PZ-38	Water	08/07/18 09:48	08/08/18 09:43
267950003	PZ-39	Water	08/07/18 11:35	08/08/18 09:43
267950004	PZ-40	Water	08/07/18 13:02	08/08/18 09:43
267950005	PZ-41	Water	08/07/18 14:18	08/08/18 09:43
267950006	FB-1-8-7-18	Water	08/07/18 12:00	08/08/18 09:43
267950007	EB-1-8-7-18	Water	08/07/18 13:20	08/08/18 09:43
267950008	Dup-1	Water	08/07/18 00:00	08/08/18 09:43

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SAMPLE ANALYTE COUNT

Project: Plant Yates Phase II
Pace Project No.: 267950

Lab ID	Sample ID	Method	Analysts	Analytes Reported
267950001	PZ-37	EPA 6020B	CSW	14
		EPA 7470A	DRB	1
		SM 2540C	JPT	1
		EPA 300.0	RLC	3
267950002	PZ-38	EPA 6020B	CSW	14
		EPA 7470A	DRB	1
		SM 2540C	JPT	1
		EPA 300.0	RLC	3
267950003	PZ-39	EPA 6020B	CSW	14
		EPA 7470A	DRB	1
		SM 2540C	JPT	1
		EPA 300.0	RLC	3
267950004	PZ-40	EPA 6020B	CSW	14
		EPA 7470A	DRB	1
		SM 2540C	JPT	1
		EPA 300.0	RLC	3
267950005	PZ-41	EPA 6020B	CSW	14
		EPA 7470A	DRB	1
		SM 2540C	JPT	1
		EPA 300.0	RLC	3
267950006	FB-1-8-7-18	EPA 6020B	CSW	14
		EPA 7470A	DRB	1
		SM 2540C	JPT	1
		EPA 300.0	RLC	3
267950007	EB-1-8-7-18	EPA 6020B	CSW	14
		EPA 7470A	DRB	1
		SM 2540C	JPT	1
		EPA 300.0	RLC	3
267950008	Dup-1	EPA 6020B	CSW	14
		EPA 7470A	DRB	1
		SM 2540C	JPT	1
		EPA 300.0	RLC	3

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ANALYTICAL RESULTS

Project: Plant Yates Phase II

Pace Project No.: 267950

Sample: PZ-37		Lab ID: 267950001		Collected: 08/06/18 16:13		Received: 08/08/18 09:43		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00078	1	08/08/18 15:10	08/10/18 18:41	7440-36-0		
Arsenic	ND	mg/L	0.0050	0.00057	1	08/08/18 15:10	08/10/18 18:41	7440-38-2		
Barium	0.048	mg/L	0.010	0.00078	1	08/08/18 15:10	08/10/18 18:41	7440-39-3		
Beryllium	0.00020J	mg/L	0.0030	0.000050	1	08/08/18 15:10	08/10/18 18:41	7440-41-7		
Boron	15.9	mg/L	2.0	0.20	50	08/08/18 15:10	08/14/18 13:48	7440-42-8	M6	
Cadmium	0.00063J	mg/L	0.0010	0.000093	1	08/08/18 15:10	08/10/18 18:41	7440-43-9		
Calcium	114	mg/L	25.0	0.69	50	08/08/18 15:10	08/10/18 18:47	7440-70-2	M6	
Chromium	ND	mg/L	0.010	0.0016	1	08/08/18 15:10	08/10/18 18:41	7440-47-3		
Cobalt	0.0053J	mg/L	0.010	0.00052	1	08/08/18 15:10	08/10/18 18:41	7440-48-4		
Lead	ND	mg/L	0.0050	0.00027	1	08/08/18 15:10	08/10/18 18:41	7439-92-1		
Lithium	0.033J	mg/L	0.050	0.00097	1	08/08/18 15:10	08/10/18 18:41	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.0019	1	08/08/18 15:10	08/10/18 18:41	7439-98-7		
Selenium	0.21	mg/L	0.010	0.0014	1	08/08/18 15:10	08/10/18 18:41	7782-49-2	M1	
Thallium	ND	mg/L	0.0010	0.00014	1	08/08/18 15:10	08/10/18 18:41	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.000036	1	08/13/18 10:27	08/14/18 10:36	7439-97-6		
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	1020	mg/L	25.0	10.0	1		08/09/18 11:06			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Chloride	4.8	mg/L	0.25	0.024	1		08/09/18 22:53	16887-00-6		
Fluoride	0.23J	mg/L	0.30	0.029	1		08/09/18 22:53	16984-48-8		
Sulfate	623	mg/L	50.0	0.85	50		08/09/18 23:14	14808-79-8	M1	

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ANALYTICAL RESULTS

Project: Plant Yates Phase II

Pace Project No.: 267950

Sample: PZ-38		Lab ID: 267950002		Collected: 08/07/18 09:48		Received: 08/08/18 09:43		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	0.0015J	mg/L	0.0030	0.00078	1	08/08/18 15:10	08/10/18 19:33	7440-36-0		
Arsenic	0.00072J	mg/L	0.0050	0.00057	1	08/08/18 15:10	08/10/18 19:33	7440-38-2		
Barium	0.023	mg/L	0.010	0.00078	1	08/08/18 15:10	08/10/18 19:33	7440-39-3		
Beryllium	0.0058	mg/L	0.0030	0.000050	1	08/08/18 15:10	08/10/18 19:33	7440-41-7		
Boron	19.1	mg/L	2.0	0.20	50	08/08/18 15:10	08/14/18 13:54	7440-42-8		
Cadmium	0.0027	mg/L	0.0010	0.000093	1	08/08/18 15:10	08/10/18 19:33	7440-43-9		
Calcium	176	mg/L	25.0	0.69	50	08/08/18 15:10	08/10/18 19:38	7440-70-2		
Chromium	ND	mg/L	0.010	0.0016	1	08/08/18 15:10	08/10/18 19:33	7440-47-3		
Cobalt	ND	mg/L	0.010	0.00052	1	08/08/18 15:10	08/10/18 19:33	7440-48-4		
Lead	ND	mg/L	0.0050	0.00027	1	08/08/18 15:10	08/10/18 19:33	7439-92-1		
Lithium	0.0092J	mg/L	0.050	0.00097	1	08/08/18 15:10	08/10/18 19:33	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.0019	1	08/08/18 15:10	08/10/18 19:33	7439-98-7		
Selenium	0.20	mg/L	0.010	0.0014	1	08/08/18 15:10	08/10/18 19:33	7782-49-2		
Thallium	ND	mg/L	0.0010	0.00014	1	08/08/18 15:10	08/10/18 19:33	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.000036	1	08/13/18 10:27	08/14/18 11:04	7439-97-6		
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	1340	mg/L	25.0	10.0	1		08/09/18 11:06			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Chloride	5.5	mg/L	0.25	0.024	1		08/10/18 00:16	16887-00-6		
Fluoride	ND	mg/L	0.30	0.029	1		08/10/18 00:16	16984-48-8		
Sulfate	879	mg/L	50.0	0.85	50		08/10/18 00:37	14808-79-8		

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ANALYTICAL RESULTS

Project: Plant Yates Phase II
Pace Project No.: 267950

Sample: PZ-39		Lab ID: 267950003		Collected: 08/07/18 11:35		Received: 08/08/18 09:43		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Antimony	ND	mg/L	0.0030	0.00078	1	08/08/18 15:10	08/10/18 19:44	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	08/08/18 15:10	08/10/18 19:44	7440-38-2	
Barium	0.0078J	mg/L	0.010	0.00078	1	08/08/18 15:10	08/10/18 19:44	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	08/08/18 15:10	08/10/18 19:44	7440-41-7	
Boron	0.024J	mg/L	0.040	0.0039	1	08/08/18 15:10	08/14/18 13:59	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000093	1	08/08/18 15:10	08/10/18 19:44	7440-43-9	
Calcium	1.2	mg/L	0.50	0.014	1	08/08/18 15:10	08/10/18 19:44	7440-70-2	
Chromium	ND	mg/L	0.010	0.0016	1	08/08/18 15:10	08/10/18 19:44	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	08/08/18 15:10	08/10/18 19:44	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	08/08/18 15:10	08/10/18 19:44	7439-92-1	
Lithium	0.0024J	mg/L	0.050	0.00097	1	08/08/18 15:10	08/10/18 19:44	7439-93-2	
Molybdenum	0.0045J	mg/L	0.010	0.0019	1	08/08/18 15:10	08/10/18 19:44	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	08/08/18 15:10	08/10/18 19:44	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	08/08/18 15:10	08/10/18 19:44	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00050	0.000036	1	08/13/18 10:27	08/14/18 11:06	7439-97-6	
2540C Total Dissolved Solids		Analytical Method: SM 2540C							
Total Dissolved Solids	89.0	mg/L	25.0	10.0	1		08/09/18 11:06		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Chloride	1.2	mg/L	0.25	0.024	1		08/10/18 00:57	16887-00-6	
Fluoride	0.048J	mg/L	0.30	0.029	1		08/10/18 00:57	16984-48-8	
Sulfate	20.7	mg/L	1.0	0.017	1		08/10/18 00:57	14808-79-8	

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ANALYTICAL RESULTS

Project: Plant Yates Phase II
Pace Project No.: 267950

Sample: PZ-40		Lab ID: 267950004		Collected: 08/07/18 13:02		Received: 08/08/18 09:43		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Antimony	ND	mg/L	0.0030	0.00078	1	08/08/18 15:10	08/10/18 19:55	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	08/08/18 15:10	08/10/18 19:55	7440-38-2	
Barium	0.048	mg/L	0.010	0.00078	1	08/08/18 15:10	08/10/18 19:55	7440-39-3	
Beryllium	0.00024J	mg/L	0.0030	0.000050	1	08/08/18 15:10	08/10/18 19:55	7440-41-7	
Boron	0.12	mg/L	0.040	0.0039	1	08/08/18 15:10	08/14/18 14:05	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000093	1	08/08/18 15:10	08/10/18 19:55	7440-43-9	
Calcium	6.3	mg/L	0.50	0.014	1	08/08/18 15:10	08/10/18 19:55	7440-70-2	
Chromium	ND	mg/L	0.010	0.0016	1	08/08/18 15:10	08/10/18 19:55	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	08/08/18 15:10	08/10/18 19:55	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	08/08/18 15:10	08/10/18 19:55	7439-92-1	
Lithium	ND	mg/L	0.050	0.00097	1	08/08/18 15:10	08/10/18 19:55	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	08/08/18 15:10	08/10/18 19:55	7439-98-7	
Selenium	0.0031J	mg/L	0.010	0.0014	1	08/08/18 15:10	08/10/18 19:55	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	08/08/18 15:10	08/10/18 19:55	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00050	0.000036	1	08/13/18 10:27	08/14/18 11:08	7439-97-6	
2540C Total Dissolved Solids		Analytical Method: SM 2540C							
Total Dissolved Solids	103	mg/L	25.0	10.0	1		08/09/18 11:06		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Chloride	4.3	mg/L	0.25	0.024	1		08/10/18 01:39	16887-00-6	
Fluoride	ND	mg/L	0.30	0.029	1		08/10/18 01:39	16984-48-8	
Sulfate	40.5	mg/L	1.0	0.017	1		08/10/18 01:39	14808-79-8	

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ANALYTICAL RESULTS

Project: Plant Yates Phase II

Pace Project No.: 267950

Sample: PZ-41		Lab ID: 267950005		Collected: 08/07/18 14:18		Received: 08/08/18 09:43		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00078	1	08/08/18 15:10	08/10/18 20:07	7440-36-0		
Arsenic	ND	mg/L	0.0050	0.00057	1	08/08/18 15:10	08/10/18 20:07	7440-38-2		
Barium	0.027	mg/L	0.010	0.00078	1	08/08/18 15:10	08/10/18 20:07	7440-39-3		
Beryllium	0.0037	mg/L	0.0030	0.000050	1	08/08/18 15:10	08/10/18 20:07	7440-41-7		
Boron	11.9	mg/L	2.0	0.20	50	08/08/18 15:10	08/14/18 14:11	7440-42-8		
Cadmium	0.00024J	mg/L	0.0010	0.000093	1	08/08/18 15:10	08/10/18 20:07	7440-43-9		
Calcium	40.7	mg/L	25.0	0.69	50	08/08/18 15:10	08/10/18 20:13	7440-70-2		
Chromium	ND	mg/L	0.010	0.0016	1	08/08/18 15:10	08/10/18 20:07	7440-47-3		
Cobalt	ND	mg/L	0.010	0.00052	1	08/08/18 15:10	08/10/18 20:07	7440-48-4		
Lead	ND	mg/L	0.0050	0.00027	1	08/08/18 15:10	08/10/18 20:07	7439-92-1		
Lithium	0.0038J	mg/L	0.050	0.00097	1	08/08/18 15:10	08/10/18 20:07	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.0019	1	08/08/18 15:10	08/10/18 20:07	7439-98-7		
Selenium	0.061	mg/L	0.010	0.0014	1	08/08/18 15:10	08/10/18 20:07	7782-49-2		
Thallium	ND	mg/L	0.0010	0.00014	1	08/08/18 15:10	08/10/18 20:07	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.000036	1	08/13/18 10:27	08/14/18 11:11	7439-97-6		
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	574	mg/L	25.0	10.0	1		08/09/18 11:06			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Chloride	3.3	mg/L	0.25	0.024	1		08/10/18 03:43	16887-00-6		
Fluoride	0.11J	mg/L	0.30	0.029	1		08/10/18 03:43	16984-48-8		
Sulfate	346	mg/L	50.0	0.85	50		08/10/18 04:03	14808-79-8		

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ANALYTICAL RESULTS

Project: Plant Yates Phase II

Pace Project No.: 267950

Sample: FB-1-8-7-18		Lab ID: 267950006		Collected: 08/07/18 12:00		Received: 08/08/18 09:43		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Antimony	ND	mg/L	0.0030	0.00078	1	08/08/18 15:10	08/10/18 20:18	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	08/08/18 15:10	08/10/18 20:18	7440-38-2	
Barium	ND	mg/L	0.010	0.00078	1	08/08/18 15:10	08/10/18 20:18	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	08/08/18 15:10	08/10/18 20:18	7440-41-7	
Boron	0.017J	mg/L	0.040	0.0039	1	08/08/18 15:10	08/10/18 20:18	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000093	1	08/08/18 15:10	08/10/18 20:18	7440-43-9	
Calcium	0.11J	mg/L	0.50	0.014	1	08/08/18 15:10	08/10/18 20:18	7440-70-2	
Chromium	ND	mg/L	0.010	0.0016	1	08/08/18 15:10	08/10/18 20:18	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	08/08/18 15:10	08/10/18 20:18	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	08/08/18 15:10	08/10/18 20:18	7439-92-1	
Lithium	ND	mg/L	0.050	0.00097	1	08/08/18 15:10	08/10/18 20:18	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	08/08/18 15:10	08/10/18 20:18	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	08/08/18 15:10	08/10/18 20:18	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	08/08/18 15:10	08/10/18 20:18	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00050	0.000036	1	08/13/18 10:27	08/14/18 11:13	7439-97-6	
2540C Total Dissolved Solids		Analytical Method: SM 2540C							
Total Dissolved Solids	11.0J	mg/L	25.0	10.0	1		08/09/18 11:06		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Chloride	0.11J	mg/L	0.25	0.024	1		08/10/18 04:24	16887-00-6	B
Fluoride	ND	mg/L	0.30	0.029	1		08/10/18 04:24	16984-48-8	
Sulfate	ND	mg/L	1.0	0.017	1		08/10/18 04:24	14808-79-8	

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ANALYTICAL RESULTS

Project: Plant Yates Phase II

Pace Project No.: 267950

Sample: EB-1-8-7-18		Lab ID: 267950007		Collected: 08/07/18 13:20		Received: 08/08/18 09:43		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00078	1	08/08/18 15:10	08/10/18 20:24	7440-36-0		
Arsenic	ND	mg/L	0.0050	0.00057	1	08/08/18 15:10	08/10/18 20:24	7440-38-2		
Barium	ND	mg/L	0.010	0.00078	1	08/08/18 15:10	08/10/18 20:24	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000050	1	08/08/18 15:10	08/10/18 20:24	7440-41-7		
Boron	0.012J	mg/L	0.040	0.0039	1	08/08/18 15:10	08/10/18 20:24	7440-42-8		
Cadmium	ND	mg/L	0.0010	0.000093	1	08/08/18 15:10	08/10/18 20:24	7440-43-9		
Calcium	0.21J	mg/L	0.50	0.014	1	08/08/18 15:10	08/10/18 20:24	7440-70-2		
Chromium	ND	mg/L	0.010	0.0016	1	08/08/18 15:10	08/10/18 20:24	7440-47-3		
Cobalt	ND	mg/L	0.010	0.00052	1	08/08/18 15:10	08/10/18 20:24	7440-48-4		
Lead	ND	mg/L	0.0050	0.00027	1	08/08/18 15:10	08/10/18 20:24	7439-92-1		
Lithium	ND	mg/L	0.050	0.00097	1	08/08/18 15:10	08/10/18 20:24	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.0019	1	08/08/18 15:10	08/10/18 20:24	7439-98-7		
Selenium	ND	mg/L	0.010	0.0014	1	08/08/18 15:10	08/10/18 20:24	7782-49-2		
Thallium	ND	mg/L	0.0010	0.00014	1	08/08/18 15:10	08/10/18 20:24	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.000036	1	08/13/18 10:27	08/14/18 11:16	7439-97-6		
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	19.0J	mg/L	25.0	10.0	1		08/09/18 11:06			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Chloride	0.096J	mg/L	0.25	0.024	1		08/10/18 04:45	16887-00-6	B	
Fluoride	ND	mg/L	0.30	0.029	1		08/10/18 04:45	16984-48-8		
Sulfate	ND	mg/L	1.0	0.017	1		08/10/18 04:45	14808-79-8		

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ANALYTICAL RESULTS

Project: Plant Yates Phase II
Pace Project No.: 267950

Sample: Dup-1		Lab ID: 267950008		Collected: 08/07/18 00:00		Received: 08/08/18 09:43		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Antimony	0.0013J	mg/L	0.0030	0.00078	1	08/08/18 15:10	08/10/18 20:41	7440-36-0	
Arsenic	0.00061J	mg/L	0.0050	0.00057	1	08/08/18 15:10	08/10/18 20:41	7440-38-2	
Barium	0.024	mg/L	0.010	0.00078	1	08/08/18 15:10	08/10/18 20:41	7440-39-3	
Beryllium	0.0058	mg/L	0.0030	0.000050	1	08/08/18 15:10	08/10/18 20:41	7440-41-7	
Boron	21.0	mg/L	2.0	0.20	50	08/08/18 15:10	08/10/18 20:47	7440-42-8	
Cadmium	0.0028	mg/L	0.0010	0.000093	1	08/08/18 15:10	08/10/18 20:41	7440-43-9	
Calcium	184	mg/L	25.0	0.69	50	08/08/18 15:10	08/10/18 20:47	7440-70-2	
Chromium	ND	mg/L	0.010	0.0016	1	08/08/18 15:10	08/10/18 20:41	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	08/08/18 15:10	08/10/18 20:41	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	08/08/18 15:10	08/10/18 20:41	7439-92-1	
Lithium	0.0091J	mg/L	0.050	0.00097	1	08/08/18 15:10	08/10/18 20:41	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	08/08/18 15:10	08/10/18 20:41	7439-98-7	
Selenium	0.21	mg/L	0.010	0.0014	1	08/08/18 15:10	08/10/18 20:41	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	08/08/18 15:10	08/10/18 20:41	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00050	0.000036	1	08/13/18 10:27	08/14/18 11:18	7439-97-6	
2540C Total Dissolved Solids		Analytical Method: SM 2540C							
Total Dissolved Solids	1340	mg/L	25.0	10.0	1		08/09/18 11:06		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Chloride	5.5	mg/L	0.25	0.024	1		08/10/18 05:05	16887-00-6	
Fluoride	ND	mg/L	0.30	0.029	1		08/10/18 05:05	16984-48-8	
Sulfate	881	mg/L	50.0	0.85	50		08/10/18 05:27	14808-79-8	

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QUALITY CONTROL DATA

Project: Plant Yates Phase II
Pace Project No.: 267950

QC Batch: 11554 Analysis Method: EPA 7470A
QC Batch Method: EPA 7470A Analysis Description: 7470 Mercury
Associated Lab Samples: 267950001, 267950002, 267950003, 267950004, 267950005, 267950006, 267950007, 267950008

METHOD BLANK: 52096 Matrix: Water
Associated Lab Samples: 267950001, 267950002, 267950003, 267950004, 267950005, 267950006, 267950007, 267950008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00050	0.000036	08/14/18 10:31	

LABORATORY CONTROL SAMPLE: 52097

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	.0025	0.0024	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 52098 52099

Parameter	Units	267950001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	mg/L	ND	.0025	.0025	0.0024	0.0023	97	92	75-125	5	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Yates Phase II
Pace Project No.: 267950

QC Batch: 11356 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020B MET
Associated Lab Samples: 267950001, 267950002, 267950003, 267950004, 267950005, 267950006, 267950007, 267950008

METHOD BLANK: 51139 Matrix: Water
Associated Lab Samples: 267950001, 267950002, 267950003, 267950004, 267950005, 267950006, 267950007, 267950008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00078	08/10/18 18:30	
Arsenic	mg/L	ND	0.0050	0.00057	08/10/18 18:30	
Barium	mg/L	ND	0.010	0.00078	08/10/18 18:30	
Beryllium	mg/L	ND	0.0030	0.000050	08/10/18 18:30	
Boron	mg/L	ND	0.040	0.0039	08/10/18 18:30	
Cadmium	mg/L	ND	0.0010	0.000093	08/10/18 18:30	
Calcium	mg/L	ND	0.50	0.014	08/10/18 18:30	
Chromium	mg/L	ND	0.010	0.0016	08/10/18 18:30	
Cobalt	mg/L	ND	0.010	0.00052	08/10/18 18:30	
Lead	mg/L	ND	0.0050	0.00027	08/10/18 18:30	
Lithium	mg/L	ND	0.050	0.00097	08/10/18 18:30	
Molybdenum	mg/L	ND	0.010	0.0019	08/10/18 18:30	
Selenium	mg/L	ND	0.010	0.0014	08/10/18 18:30	
Thallium	mg/L	ND	0.0010	0.00014	08/10/18 18:30	

LABORATORY CONTROL SAMPLE: 51140

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	.1	0.099	99	80-120	
Arsenic	mg/L	.1	0.096	96	80-120	
Barium	mg/L	.1	0.099	99	80-120	
Beryllium	mg/L	.1	0.11	106	80-120	
Boron	mg/L	1	1.1	108	80-120	
Cadmium	mg/L	.1	0.098	98	80-120	
Calcium	mg/L	1	0.99	99	80-120	
Chromium	mg/L	.1	0.10	102	80-120	
Cobalt	mg/L	.1	0.10	101	80-120	
Lead	mg/L	.1	0.098	98	80-120	
Lithium	mg/L	.1	0.11	108	80-120	
Molybdenum	mg/L	.1	0.10	104	80-120	
Selenium	mg/L	.1	0.095	95	80-120	
Thallium	mg/L	.1	0.099	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 51141 51142

Parameter	Units	267950001 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
			Spike Conc.	MS Result	MSD Result						
Antimony	mg/L	ND	.1	.1	0.099	0.10	99	104	75-125	5	20

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Yates Phase II

Pace Project No.: 267950

Parameter	Units	MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 51141		51142		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	RPD	Qual
		267950001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result								
Arsenic	mg/L	ND	.1	.1	0.099	0.10	98	104	75-125	5	20		
Barium	mg/L	0.048	.1	.1	0.15	0.16	101	109	75-125	5	20		
Beryllium	mg/L	0.00020J	.1	.1	0.097	0.10	97	102	75-125	5	20		
Boron	mg/L	15.9	1	1	19.6	21.4	368	551	75-125	9	20	M6	
Cadmium	mg/L	0.00063J	.1	.1	0.098	0.10	97	103	75-125	6	20		
Calcium	mg/L	114	1	1	121	133	634	1850	75-125	10	20	M6	
Chromium	mg/L	ND	.1	.1	0.10	0.11	102	108	75-125	5	20		
Cobalt	mg/L	0.0053J	.1	.1	0.10	0.11	98	104	75-125	6	20		
Lead	mg/L	ND	.1	.1	0.090	0.097	90	96	75-125	7	20		
Lithium	mg/L	0.033J	.1	.1	0.14	0.14	102	107	75-125	4	20		
Molybdenum	mg/L	ND	.1	.1	0.10	0.11	99	109	75-125	9	20		
Selenium	mg/L	0.21	.1	.1	0.31	0.34	107	131	75-125	8	20	M1	
Thallium	mg/L	ND	.1	.1	0.093	0.098	93	98	75-125	5	20		

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Yates Phase II

Pace Project No.: 267950

QC Batch: 11409 Analysis Method: SM 2540C
 QC Batch Method: SM 2540C Analysis Description: 2540C Total Dissolved Solids
 Associated Lab Samples: 267950001, 267950002, 267950003, 267950004, 267950005, 267950006, 267950007, 267950008

LABORATORY CONTROL SAMPLE: 51437

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	417	104	84-108	

SAMPLE DUPLICATE: 51438

Parameter	Units	267902001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	3390	3440	1	10	

SAMPLE DUPLICATE: 51439

Parameter	Units	267982002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1300	1280	1	10	

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QUALITY CONTROL DATA

Project: Plant Yates Phase II
Pace Project No.: 267950

QC Batch: 11403 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 267950001, 267950002, 267950003, 267950004, 267950005, 267950006, 267950007, 267950008

METHOD BLANK: 51402 Matrix: Water
Associated Lab Samples: 267950001, 267950002, 267950003, 267950004, 267950005, 267950006, 267950007, 267950008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	0.099J	0.25	0.024	08/09/18 22:12	
Fluoride	mg/L	ND	0.30	0.029	08/09/18 22:12	
Sulfate	mg/L	ND	1.0	0.017	08/09/18 22:12	

LABORATORY CONTROL SAMPLE: 51403

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	10	9.9	99	90-110	
Fluoride	mg/L	10	10.1	101	90-110	
Sulfate	mg/L	10	9.7	97	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 51404 51405

Parameter	Units	51404		51405		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		267950001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result						
Chloride	mg/L	4.8	10	10	13.8	13.8	91	91	90-110	0	15
Fluoride	mg/L	0.23J	10	10	9.7	9.6	95	94	90-110	1	15
Sulfate	mg/L	623	10	10	324	324	-2990	-2990	90-110	0	15 E,M1

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REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: Plant Yates Phase II

Pace Project No.: 267950

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

B Analyte was detected in the associated method blank.

E Analyte concentration exceeded the calibration range. The reported result is estimated.

M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

M6 Matrix spike and Matrix spike duplicate recovery not evaluated against control limits due to sample dilution.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Yates Phase II
Pace Project No.: 267950

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
267950001	PZ-37	EPA 3005A	11356	EPA 6020B	11529
267950002	PZ-38	EPA 3005A	11356	EPA 6020B	11529
267950003	PZ-39	EPA 3005A	11356	EPA 6020B	11529
267950004	PZ-40	EPA 3005A	11356	EPA 6020B	11529
267950005	PZ-41	EPA 3005A	11356	EPA 6020B	11529
267950006	FB-1-8-7-18	EPA 3005A	11356	EPA 6020B	11529
267950007	EB-1-8-7-18	EPA 3005A	11356	EPA 6020B	11529
267950008	Dup-1	EPA 3005A	11356	EPA 6020B	11529
267950001	PZ-37	EPA 7470A	11554	EPA 7470A	11621
267950002	PZ-38	EPA 7470A	11554	EPA 7470A	11621
267950003	PZ-39	EPA 7470A	11554	EPA 7470A	11621
267950004	PZ-40	EPA 7470A	11554	EPA 7470A	11621
267950005	PZ-41	EPA 7470A	11554	EPA 7470A	11621
267950006	FB-1-8-7-18	EPA 7470A	11554	EPA 7470A	11621
267950007	EB-1-8-7-18	EPA 7470A	11554	EPA 7470A	11621
267950008	Dup-1	EPA 7470A	11554	EPA 7470A	11621
267950001	PZ-37	SM 2540C	11409		
267950002	PZ-38	SM 2540C	11409		
267950003	PZ-39	SM 2540C	11409		
267950004	PZ-40	SM 2540C	11409		
267950005	PZ-41	SM 2540C	11409		
267950006	FB-1-8-7-18	SM 2540C	11409		
267950007	EB-1-8-7-18	SM 2540C	11409		
267950008	Dup-1	SM 2540C	11409		
267950001	PZ-37	EPA 300.0	11403		
267950002	PZ-38	EPA 300.0	11403		
267950003	PZ-39	EPA 300.0	11403		
267950004	PZ-40	EPA 300.0	11403		
267950005	PZ-41	EPA 300.0	11403		
267950006	FB-1-8-7-18	EPA 300.0	11403		
267950007	EB-1-8-7-18	EPA 300.0	11403		
267950008	Dup-1	EPA 300.0	11403		

REPORT OF LABORATORY ANALYSIS

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CHAIN OF CUSTODY RECORD

Pace Analytical Services, Inc.
 110 TECHNOLOGY PARKWAY, PEACHTREE CORNERS, GA 30092
 (770) 734-4200 : FAX (770) 734-4201 : www.asi-lab.com

PAGE: 1 OF 1

CLIENT NAME:
 Georgia Power
 CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER:
 241 Ralph McGill Blvd SE B10185
 Atlanta, GA 30308
 404-508-7239
 REPORT TO:
 Joju Abraham
 CC: Maria Padilla
 Heath McConkie
 PO #:
 laburch@southernco.com
 PROJECT NAME/STATE:
 Plant Yates - Additional Phase 2 Facility Wells
 PROJECT #:
 Phase 2 CCR

CONTAINER TYPE: PRESERVATION:	ANALYSIS REQUESTED			CONTAINER TYPE PRESERVATION
	P	P	P	
# of	3	7	3	
C O N T A I N E R S				
	Metals App. III & IV (EPA 6020/7470)	Cl, T, SO ₄ & TDS (EPA 300.0 & SM 2540C)	Radium 226 & 228 (SW-845 9315/9320)	

L A B I D N U M B E R	CONTAINER TYPE	PRESERVATION
	P - PLASTIC	1 - HCl, 56°C
	A - AMBER GLASS	2 - H ₂ SO ₄ , 56°C
	G - CLEAR GLASS	3 - HNO ₃
	V - VOA VIAL	4 - NaOH, 56°C
	S - STERILE	5 - NaOH/ZnAc, 56°C
	O - OTHER	6 - Na ₂ S ₂ O ₃ , 56°C
		7 - 56°C not frozen
	*MATRIX CODES:	
	DW - DRINKING WATER	S - SOIL
	WW - WASTEWATER	SL - SLUDGE
	GW - GROUNDWATER	SD - SOLID
	SW - SURFACE WATER	A - AIR
	ST - STORM WATER	L - LIQUID
	W - WATER	P - PRODUCT
	REMARKS/ADDITIONAL INFORMATION	

NO#: 267950



SAMPLED BY AND TITLE:
 RECEIVED BY:
 DATE/TIME: 8-7-18/14:18
 DATE/TIME:
 RELINQUISHED BY:
 DATE/TIME:
 RELINQUISHED BY:
 DATE/TIME:
 SAMPLE SHIPPED VIA:
 DATE/TIME: 08/08/18 0943
 RECEIVED BY LAB:
 DATE/TIME: 08/08/18 0943
 RECEIVED BY:
 DATE/TIME: 08/08/18 0943

LAB #:	FOR LAB USE ONLY
0943	
Tracking #:	
CLIENT:	FS
COURIER:	OTHER
USES:	
FEE-EX:	
Broken:	Not Present
Seal:	
Temp:	
Humid:	
Other ID:	

Sample Condition Upon Receipt

Face Analytical

Client Name: GIA Power

Project # _____

WO#: 267950

PM: BM

Due Date: 08/15/18

CLIENT: GAPower-CCR

Courier: Fed Ex UPS USPS Client Commercial Pace Other

Tracking #: _____

Custody Seal on Cooler/Box Present: yes no Seals intact: yes no

Packing Material: Bubble Wrap Bubble Bags None Other

Thermometer Used 83 Type of Ice: Wet Blue None

Cooler Temperature 0.1 Biological Tissue is Frozen: Yes No

Temp should be above freezing to 6°C

Samples on ice, cooling process has begun

Date and Initials of person examining contents: 8/3/18 [Signature]

Comments: _____

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.		
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.		
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.		
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.		
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.		
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.		
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.		
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.		
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.		
-Pace Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A			
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.		
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.		
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.		
-Includes date/time/ID/Analysis Matrix: <u>GIA</u>				
All containers needing preservation have been checked.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	13.		
All containers needing preservation are found to be in compliance with EPA recommendation.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A			
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Initial when completed	Lot # of added preservative	
Samples checked for dechlorination:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.		
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.		
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	16.		
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A			
Pace Trip Blank Lot # (if purchased): _____				

Client Notification/ Resolution:

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Field Data Required? Y N

Project Manager Review: _____ **Date:** _____

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNP Certification Office - i.e. out of hold, incorrect preservative, out of temp, incorrect containers.

August 31, 2018

Joju Abraham
Georgia Power - Coal Combustion Residuals
2480 Maner Road
Atlanta, GA 30339

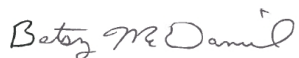
RE: Project: Plant Yates Phase II
Pace Project No.: 267951

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on August 08, 2018. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Betsy McDaniel
betsy.mcdaniel@pacelabs.com
(770)734-4200
Project Manager

Enclosures

cc: Maria Padilla, Georgia Power
Chris Parker, Atlantic Coast Consulting
Evan Perry, Atlantic Coast Consulting
Lauren Petty, Southern Company Services, Inc.
Rebecca Thornton, Pace Analytical Atlanta



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: Plant Yates Phase II

Pace Project No.: 267951

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601

ANAB DOD-ELAP Rad Accreditation #: L2417

Alabama Certification #: 41590

Arizona Certification #: AZ0734

Arkansas Certification

California Certification #: 04222CA

Colorado Certification #: PA01547

Connecticut Certification #: PH-0694

Delaware Certification

EPA Region 4 DW Rad

Florida/TNI Certification #: E87683

Georgia Certification #: C040

Guam Certification

Hawaii Certification

Idaho Certification

Illinois Certification

Indiana Certification

Iowa Certification #: 391

Kansas/TNI Certification #: E-10358

Kentucky Certification #: KY90133

KY WW Permit #: KY0098221

KY WW Permit #: KY0000221

Louisiana DHH/TNI Certification #: LA180012

Louisiana DEQ/TNI Certification #: 4086

Maine Certification #: 2017020

Maryland Certification #: 308

Massachusetts Certification #: M-PA1457

Michigan/PADEP Certification #: 9991

Missouri Certification #: 235

Montana Certification #: Cert0082

Nebraska Certification #: NE-OS-29-14

Nevada Certification #: PA014572018-1

New Hampshire/TNI Certification #: 297617

New Jersey/TNI Certification #: PA051

New Mexico Certification #: PA01457

New York/TNI Certification #: 10888

North Carolina Certification #: 42706

North Dakota Certification #: R-190

Ohio EPA Rad Approval: #41249

Oregon/TNI Certification #: PA200002-010

Pennsylvania/TNI Certification #: 65-00282

Puerto Rico Certification #: PA01457

Rhode Island Certification #: 65-00282

South Dakota Certification

Tennessee Certification #: 02867

Texas/TNI Certification #: T104704188-17-3

Utah/TNI Certification #: PA014572017-9

USDA Soil Permit #: P330-17-00091

Vermont Dept. of Health: ID# VT-0282

Virgin Island/PADEP Certification

Virginia/VELAP Certification #: 9526

Washington Certification #: C868

West Virginia DEP Certification #: 143

West Virginia DHHR Certification #: 9964C

Wisconsin Approve List for Rad

Wyoming Certification #: 8TMS-L

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: Plant Yates Phase II

Pace Project No.: 267951

Lab ID	Sample ID	Matrix	Date Collected	Date Received
267951001	PZ-37	Water	08/06/18 16:13	08/08/18 09:43
267951002	PZ-38	Water	08/07/18 09:48	08/08/18 09:43
267951003	PZ-39	Water	08/07/18 11:35	08/08/18 09:43
267951004	PZ-40	Water	08/07/18 13:02	08/08/18 09:43
267951005	PZ-41	Water	08/07/18 14:18	08/08/18 09:43
267951006	FB-1-8-7-18	Water	08/07/18 12:00	08/08/18 09:43
267951007	EB-1-8-7-18	Water	08/07/18 13:20	08/08/18 09:43
267951008	Dup-1	Water	08/07/18 00:00	08/08/18 09:43

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: Plant Yates Phase II
Pace Project No.: 267951

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
267951001	PZ-37	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
267951002	PZ-38	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
267951003	PZ-39	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
267951004	PZ-40	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
267951005	PZ-41	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
267951006	FB-1-8-7-18	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
267951007	EB-1-8-7-18	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
267951008	Dup-1	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Phase II

Pace Project No.: 267951

Sample: PZ-37 **Lab ID: 267951001** Collected: 08/06/18 16:13 Received: 08/08/18 09:43 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.722 ± 0.211 (0.234) C:81% T:NA	pCi/L	08/22/18 16:23	13982-63-3	
Radium-228	EPA 9320	0.964 ± 0.512 (0.901) C:74% T:68%	pCi/L	08/23/18 14:05	15262-20-1	
Total Radium	Total Radium Calculation	1.69 ± 0.723 (1.14)	pCi/L	08/27/18 15:52	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Phase II
Pace Project No.: 267951

Sample: PZ-38 **Lab ID: 267951002** Collected: 08/07/18 09:48 Received: 08/08/18 09:43 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.473 ± 0.168 (0.216) C:85% T:NA	pCi/L	08/22/18 16:23	13982-63-3	
Radium-228	EPA 9320	0.733 ± 0.402 (0.714) C:75% T:78%	pCi/L	08/23/18 14:05	15262-20-1	
Total Radium	Total Radium Calculation	1.21 ± 0.570 (0.930)	pCi/L	08/29/18 11:41	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Phase II

Pace Project No.: 267951

Sample: PZ-39 **Lab ID: 267951003** Collected: 08/07/18 11:35 Received: 08/08/18 09:43 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.0962 ± 0.0971 (0.181) C:84% T:NA	pCi/L	08/22/18 16:23	13982-63-3	
Radium-228	EPA 9320	0.236 ± 0.309 (0.653) C:70% T:79%	pCi/L	08/23/18 14:05	15262-20-1	
Total Radium	Total Radium Calculation	0.332 ± 0.406 (0.834)	pCi/L	08/29/18 11:41	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Phase II

Pace Project No.: 267951

Sample: PZ-40 **Lab ID: 267951004** Collected: 08/07/18 13:02 Received: 08/08/18 09:43 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.382 ± 0.157 (0.216) C:79% T:NA	pCi/L	08/22/18 16:23	13982-63-3	
Radium-228	EPA 9320	0.782 ± 0.487 (0.940) C:76% T:85%	pCi/L	08/23/18 12:43	15262-20-1	
Total Radium	Total Radium Calculation	1.16 ± 0.644 (1.16)	pCi/L	08/29/18 11:46	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Phase II

Pace Project No.: 267951

Sample: PZ-41 **Lab ID: 267951005** Collected: 08/07/18 14:18 Received: 08/08/18 09:43 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.218 ± 0.126 (0.204) C:84% T:NA	pCi/L	08/22/18 17:54	13982-63-3	
Radium-228	EPA 9320	0.361 ± 0.430 (0.910) C:79% T:77%	pCi/L	08/23/18 12:43	15262-20-1	
Total Radium	Total Radium Calculation	0.579 ± 0.556 (1.11)	pCi/L	08/29/18 11:46	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Phase II

Pace Project No.: 267951

Sample: FB-1-8-7-18 **Lab ID: 267951006** Collected: 08/07/18 12:00 Received: 08/08/18 09:43 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.0760 ± 0.0925 (0.179) C:89% T:NA	pCi/L	08/22/18 17:57	13982-63-3	
Radium-228	EPA 9320	0.977 ± 0.492 (0.881) C:76% T:77%	pCi/L	08/23/18 12:43	15262-20-1	
Total Radium	Total Radium Calculation	1.05 ± 0.585 (1.06)	pCi/L	08/29/18 11:46	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Phase II

Pace Project No.: 267951

Sample: EB-1-8-7-18 **Lab ID: 267951007** Collected: 08/07/18 13:20 Received: 08/08/18 09:43 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.0905 ± 0.126 (0.250) C:78% T:NA	pCi/L	08/22/18 17:58	13982-63-3	
Radium-228	EPA 9320	0.129 ± 0.486 (1.09) C:74% T:83%	pCi/L	08/23/18 12:43	15262-20-1	
Total Radium	Total Radium Calculation	0.220 ± 0.612 (1.34)	pCi/L	08/29/18 11:46	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Phase II

Pace Project No.: 267951

Sample: Dup-1 **Lab ID: 267951008** Collected: 08/07/18 00:00 Received: 08/08/18 09:43 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.572 ± 0.168 (0.168) C:86% T:NA	pCi/L	08/22/18 17:59	13982-63-3	
Radium-228	EPA 9320	0.190 ± 0.468 (1.04) C:75% T:78%	pCi/L	08/23/18 12:43	15262-20-1	
Total Radium	Total Radium Calculation	0.762 ± 0.636 (1.21)	pCi/L	08/29/18 11:46	7440-14-4	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Yates Phase II

Pace Project No.: 267951

QC Batch:	309688	Analysis Method:	EPA 9315
QC Batch Method:	EPA 9315	Analysis Description:	9315 Total Radium
Associated Lab Samples:	267951001, 267951002, 267951003, 267951004, 267951005, 267951006, 267951007, 267951008		

METHOD BLANK:	1513132	Matrix:	Water
Associated Lab Samples:	267951001, 267951002, 267951003, 267951004, 267951005, 267951006, 267951007, 267951008		

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.101 ± 0.101 (0.190) C:90% T:NA	pCi/L	08/22/18 16:23	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Yates Phase II

Pace Project No.: 267951

QC Batch: 309687

Analysis Method: EPA 9320

QC Batch Method: EPA 9320

Analysis Description: 9320 Radium 228

Associated Lab Samples: 267951001, 267951002, 267951003, 267951004, 267951005, 267951006, 267951007, 267951008

METHOD BLANK: 1513131

Matrix: Water

Associated Lab Samples: 267951001, 267951002, 267951003, 267951004, 267951005, 267951006, 267951007, 267951008

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.429 ± 0.382 (0.771) C:76% T:72%	pCi/L	08/23/18 10:47	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: Plant Yates Phase II
Pace Project No.: 267951

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval).

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-PA Pace Analytical Services - Greensburg

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Yates Phase II

Pace Project No.: 267951

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
267951001	PZ-37	EPA 9315	309688		
267951002	PZ-38	EPA 9315	309688		
267951003	PZ-39	EPA 9315	309688		
267951004	PZ-40	EPA 9315	309688		
267951005	PZ-41	EPA 9315	309688		
267951006	FB-1-8-7-18	EPA 9315	309688		
267951007	EB-1-8-7-18	EPA 9315	309688		
267951008	Dup-1	EPA 9315	309688		
267951001	PZ-37	EPA 9320	309687		
267951002	PZ-38	EPA 9320	309687		
267951003	PZ-39	EPA 9320	309687		
267951004	PZ-40	EPA 9320	309687		
267951005	PZ-41	EPA 9320	309687		
267951006	FB-1-8-7-18	EPA 9320	309687		
267951007	EB-1-8-7-18	EPA 9320	309687		
267951008	Dup-1	EPA 9320	309687		
267951001	PZ-37	Total Radium Calculation	311075		
267951002	PZ-38	Total Radium Calculation	311304		
267951003	PZ-39	Total Radium Calculation	311304		
267951004	PZ-40	Total Radium Calculation	311313		
267951005	PZ-41	Total Radium Calculation	311313		
267951006	FB-1-8-7-18	Total Radium Calculation	311313		
267951007	EB-1-8-7-18	Total Radium Calculation	311313		
267951008	Dup-1	Total Radium Calculation	311313		

REPORT OF LABORATORY ANALYSIS

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CHAIN OF CUSTODY RECORD

CLIENT NAME: Georgia Power
CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER: 241 Ralph McGill Blvd SE B101185
 Atlanta, GA 30308
 404-506-7239
REPORT TO: Jolu Abraham
REQUESTED COMPLETION DATE: laburch@southernco.com
PROJECT NAME/STATE: Plant Yates - Additional Phase 2 Facility Wells
 Phase 2 CCR

CONTAINER TYPE	ANALYSIS REQUESTED			
	P	P	P	P
PRESERVATION # of	3	7	3	
CONTAINER TYPE				

L	A	B	D	N	U	M	B	E	R
CONTAINER TYPE									
PRESERVATION									
PRESERVATION									

Collection DATE	Collection TIME	MATRIX CODE	C O U R T M A P	SAMPLE IDENTIFICATION	Metals App. III & IV (EPA 6020/7470)	Cl, F, SO ₄ & TDS (EPA 300.0 & SM 2540C)	Radium 226 & 228 (SW-846 9315/9320)	# of Containers	CONTAINER TYPE	ANALYSIS REQUESTED	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	LAB #	REMARKS/ADDITIONAL INFORMATION
8-6-18	1613	G-W	X	PZ-37	✓	✓	✓	4	P		8-7-18	1418	Kearney					
8-7-18	0948	G-W	X	PZ-38	✓	✓	✓	4	P		8-7-18							
8-7-18	1135	G-W	X	PZ-39	✓	✓	✓	4	P		8-7-18							
8-7-18	1302	G-W	X	PZ-40	✓	✓	✓	4	P		8-7-18							
8-7-18	1418	G-W	X	PZ-41	✓	✓	✓	4	P		8-7-18							
8-7-18	1200	W	X	FB-1-8-7-18	✓	✓	✓	4	P		8-7-18							
8-7-18	1320	W	X	FB-1-8-7-18	✓	✓	✓	4	P		8-7-18							
8-7-18		G-W	X	Pup-1	✓	✓	✓	4	P		8-7-18							

WOF# : 267951

 267951

FOR LAB USE ONLY

LAB #: 0943
DATE/TIME: 8-7-18
DATE/TIME:
DATE/TIME:

RELIQUISHED BY: Kearney
RELIQUISHED BY:
RELIQUISHED BY:
RELIQUISHED BY:

SAMPLED BY AND TITLE: Jolu Abraham
RECEIVED BY: Jolu Abraham

DATE/TIME: 8-7-18/1418
DATE/TIME: 8-7-18/1418
DATE/TIME: 8-7-18/1418
DATE/TIME: 8-7-18/1418
DATE/TIME: 8-7-18/1418
DATE/TIME: 8-7-18/1418

RELINQUISHED BY: Kearney
RELINQUISHED BY:
RELINQUISHED BY:
RELINQUISHED BY:

SAMPLE SHIPPED VIA: UPS
FEDEX:
USPS:
CLIENT:
OTHER: FS
FS:

of Containers:
Broken:
Not Present:

Sample Condition Upon Receipt

Face Analytical

Client Name: GIA Power

Project # _____

Courier: Fed Ex UPS USPS Client Commercial Pace Other

Tracking #: _____

Custody Seal on Cooler/Box Present: yes no Seals intact: yes no

Packing Material: Bubble Wrap Bubble Bags None Other

Thermometer Used 83 Type of Ice: Wet Blue None

Cooler Temperature 0.1 Biological Tissue is Frozen: Yes No

Temp should be above freezing to 6°C

WO#: 267951

PM: BM

Due Date: 09/06/18

CLIENT: GRPower-CCR

Samples on ice, cooling process has begun

Date and Initials of person examining contents: 8/9/18 [Signature]

Comments: _____

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.		
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.		
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.		
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.		
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.		
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.		
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.		
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.		
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.		
Pace Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A			
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.		
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.		
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.		
Includes date/time/ID/Analysis Matrix:	<u>GIA</u>			
All containers needing preservation have been checked.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	13.		
All containers needing preservation are found to be in compliance with EPA recommendation.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A			
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Initial when completed		Lot # of added preservative
Samples checked for dechlorination:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.		
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.		
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	16.		
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A			
Pace Trip Blank Lot # (if purchased):	_____			

Client Notification/ Resolution:

Person Contacted: _____ Date/Time: _____

Field Data Required? Y N

Comments/ Resolution: _____

Project Manager Review: _____

Date: _____

Note: Whenever there is a discrepancy affecting North Carolina compliance samples a copy of this form will be sent to the North Carolina DE-NR Certification Office i.e. out of hold, incorrect preservative, out of temp, incorrect containers

Product Name: Low-Flow System

Date: 2018-09-24 14:37:06

Project Information:

Operator Name H Auld
Company Name Atlantic Coast Consulting
Project Name Plant Yates- Phase 2
Site Name Plant Yates-Phase 2-CCR
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 466058
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED Bladder
Tubing Type poly
Tubing Diameter .25 in
Tubing Length 47 ft

Pump placement from TOC 42 ft

Well Information:

Well ID PZ-37
Well diameter 2 in
Well Total Depth 46.90 ft
Screen Length 10 ft
Depth to Water ft

Pumping Information:

Final Pumping Rate 225 mL/min
Total System Volume 0.9386783 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			+/- 10	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 10
Last 5	14:11:19	1200.01	20.98	5.58	1165.00	2.13	--	0.18	208.63
Last 5	14:16:34	1515.01	20.85	5.52	1174.33	1.84	--	0.19	226.44
Last 5	14:21:34	1815.01	20.48	5.43	1194.66	1.46	--	0.31	242.59
Last 5	14:26:40	2121.01	20.70	5.39	1204.38	1.45	--	0.39	234.18
Last 5	14:32:05	2446.00	20.66	5.37	1209.68	1.32	--	0.42	228.36
Variance 0			-0.37	-0.09	20.33			0.11	16.15
Variance 1			0.22	-0.05	9.72			0.08	-8.42
Variance 2			-0.04	-0.02	5.30			0.04	-5.82

Notes

Sampled at 1430 on 9-24-18. Cloudy 80s. No water level because transducer in well.

Grab Samples

Product Name: Low-Flow System

Date: 2018-09-24 14:14:53

Project Information:

Operator Name Chris Parker
Company Name ACC
Project Name Plant Yates - Phase 2
Site Name Plant Yates - Phase 2 CCR
Latitude 33° 27' 27.71"
Longitude -84° -53' -49.99"
Sonde SN 466086
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type QED
Tubing Type Bladder
Tubing Diameter .25 in
Tubing Length 50 ft

Pump placement from TOC 45 ft

Well Information:

Well ID PZ-38
Well diameter 2 in
Well Total Depth 50.12 ft
Screen Length 10 ft
Depth to Water ft

Pumping Information:

Final Pumping Rate 130 mL/min
Total System Volume 0.9676365 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0 in
Total Volume Pumped 10.5 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	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	13:46:37	300.05	20.48	4.70	1516.57	0.72	--	0.84	176.78
Last 5	13:51:37	600.04	20.93	4.70	1511.52	0.91	--	0.69	178.21
Last 5	13:56:37	900.03	21.86	4.71	1519.73	0.69	--	0.84	180.39
Last 5	14:01:37	1200.03	22.09	4.70	1517.99	1.20	--	0.78	183.62
Last 5	14:06:37	1500.03	21.51	4.67	1517.22	1.10	--	0.85	184.59
Variance 0			0.93	0.01	8.21			0.15	2.18
Variance 1			0.23	-0.02	-1.74			-0.05	3.23
Variance 2			-0.58	-0.02	-0.77			0.07	0.97

Notes

Collected at 14:15. Cloudy 80s. Unable to get water level - transducer in well. EB 1 here at 13:20

Grab Samples

Product Name: Low-Flow System

Date: 2018-09-24 15:49:26

Project Information:

Operator Name Chris Parker
Company Name ACC
Project Name Plant Yates - Phase 2
Site Name Plant Yates - Phase 2 CCR
Latitude 33° 27' 27.71"
Longitude -84° -53' -49.99"
Sonde SN 466086
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type QED
Tubing Type Bladder
Tubing Diameter .25 in
Tubing Length 68 ft

Pump placement from TOC 63 ft

Well Information:

Well ID PZ-39
Well diameter 2 in
Well Total Depth 68.50 ft
Screen Length 10 ft
Depth to Water 24.62 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 1.141386 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 4 in
Total Volume Pumped 12 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	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	15:24:54	1800.02	18.50	5.83	81.38	1.98	24.90	3.37	107.56
Last 5	15:29:54	2100.02	18.70	5.92	80.44	2.31	24.90	3.59	105.33
Last 5	15:34:54	2400.01	18.65	5.84	80.21	1.80	24.90	3.77	107.20
Last 5	15:39:55	2701.00	18.58	5.75	80.12	1.65	24.90	3.86	110.70
Last 5	15:44:57	3003.00	18.74	5.81	80.44	1.88	24.90	3.93	105.06
Variance 0			-0.05	-0.09	-0.23			0.18	1.87
Variance 1			-0.07	-0.08	-0.09			0.10	3.50
Variance 2			0.16	0.05	0.33			0.07	-5.64

Notes

Collected at 15:50. Sunny 80s. DUP 1 here

Grab Samples

Product Name: Low-Flow System

Date: 2018-09-24 17:02:58

Project Information:

Operator Name Chris Parker
Company Name ACC
Project Name Plant Yates - Phase 2
Site Name Plant Yates - Phase 2 CCR
Latitude 33° 27' 27.71"
Longitude -84° -53' -49.99"
Sonde SN 466086
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type QED
Tubing Type Bladder
Tubing Diameter .17 in
Tubing Length 48 ft

Pump placement from TOC 43 ft

Well Information:

Well ID PZ-40
Well diameter 2 in
Well Total Depth 48.35 ft
Screen Length 10 ft
Depth to Water 27.52 ft

Pumping Information:

Final Pumping Rate 160 mL/min
Total System Volume 0.6992443 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 8 in
Total Volume Pumped 5.6 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	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	16:40:03	300.05	20.92	5.03	131.04	1.05	28.20	6.07	156.18
Last 5	16:45:03	600.04	18.88	5.08	126.07	0.98	28.20	5.63	150.65
Last 5	16:50:03	900.04	18.68	5.07	126.42	0.82	28.20	5.58	148.43
Last 5	16:55:03	1200.03	18.17	5.10	129.14	0.82	28.20	5.59	146.28
Last 5	17:00:03	1500.03	18.15	5.14	131.09	0.78	28.20	5.64	145.79
Variance 0			-0.20	-0.01	0.34			-0.05	-2.22
Variance 1			-0.51	0.03	2.72			0.01	-2.15
Variance 2			-0.02	0.04	1.95			0.05	-0.49

Notes

Collected at 17:05. Sunny 80s.

Grab Samples

Product Name: Low-Flow System

Date: 2018-09-24 16:22:37

Project Information:

Operator Name H Auld
Company Name Atlantic Coast Consulting
Project Name Plant Yates- Phase 2
Site Name Plant Yates-Phase 2-CCR
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 466058
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED Bladder
Tubing Type poly
Tubing Diameter .25 in
Tubing Length 67 ft

Pump placement from TOC 62 ft

Well Information:

Well ID PZ-41
Well diameter 2 in
Well Total Depth 67.70 ft
Screen Length 10 ft
Depth to Water 28.66 ft

Pumping Information:

Final Pumping Rate 160 mL/min
Total System Volume 1.131733 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 7.7 in
Total Volume Pumped 8.8 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%	+/- 0		+/- 10%	+/- 10
Last 5	15:58:30	2100.01	21.73	4.78	701.09	1.28	29.30	1.88	637.18
Last 5	16:03:30	2400.01	21.68	4.79	700.15	0.96	29.30	1.85	704.24
Last 5	16:08:30	2700.01	21.40	4.78	698.16	1.08	29.30	1.89	763.48
Last 5	16:13:30	3000.01	20.72	4.79	701.70	0.92	29.30	1.93	766.71
Last 5	16:18:30	3300.01	20.84	4.78	700.07	1.02	29.30	1.93	746.57
Variance 0			-0.28	-0.00	-1.99			0.05	59.23
Variance 1			-0.68	0.00	3.54			0.03	3.23
Variance 2			0.12	-0.00	-1.63			0.00	-20.14

Notes

Sampled at 1618 on 9-24-18. Sunny 80s.

Grab Samples

October 04, 2018

Joju Abraham
Georgia Power - Coal Combustion Residuals
2480 Maner Road
Atlanta, GA 30339

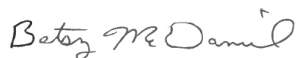
RE: Project: Plant Yates Phase II
Pace Project No.: 269623

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on September 25, 2018. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Betsy McDaniel
betsy.mcdaniel@pacelabs.com
(770)734-4200
Project Manager

Enclosures

cc: Maria Padilla, Georgia Power
Chris Parker, Atlantic Coast Consulting
Evan Perry, Atlantic Coast Consulting
Lauren Petty, Southern Company Services, Inc.
Rebecca Thornton, Pace Analytical Atlanta



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: Plant Yates Phase II

Pace Project No.: 269623

Atlanta Certification IDs

110 Technology Parkway Peachtree Corners, GA 30092

Florida DOH Certification #: E87315

Georgia DW Inorganics Certification #: 812

Georgia DW Microbiology Certification #: 812

North Carolina Certification #: 381

South Carolina Certification #: 98011001

Texas Certification #: T104704397-08-TX

Virginia Certification #: 460204

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SAMPLE SUMMARY

Project: Plant Yates Phase II

Pace Project No.: 269623

Lab ID	Sample ID	Matrix	Date Collected	Date Received
269623001	PZ-37	Water	09/24/18 14:30	09/25/18 09:40
269623002	PZ-38	Water	09/24/18 14:15	09/25/18 09:40
269623003	PZ-39	Water	09/24/18 15:50	09/25/18 09:40
269623004	PZ-40	Water	09/24/18 17:05	09/25/18 09:40
269623005	PZ-41	Water	09/24/18 16:18	09/25/18 09:40
269623006	EB-1-9-24-18	Water	09/24/18 13:20	09/25/18 09:40
269623007	Dup-1	Water	09/24/18 00:00	09/25/18 09:40
269623008	FB-1-9-24-18	Water	09/24/18 15:40	09/25/18 09:40

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SAMPLE ANALYTE COUNT

Project: Plant Yates Phase II

Pace Project No.: 269623

Lab ID	Sample ID	Method	Analysts	Analytes Reported
269623001	PZ-37	EPA 6020B	CSW	14
		EPA 7470A	DRB	1
		SM 2540C	JPT	1
		EPA 300.0	RLC	3
269623002	PZ-38	EPA 6020B	CSW	14
		EPA 7470A	DRB	1
		SM 2540C	JPT	1
		EPA 300.0	RLC	3
269623003	PZ-39	EPA 6020B	CSW	14
		EPA 7470A	DRB	1
		SM 2540C	JPT	1
		EPA 300.0	RLC	3
269623004	PZ-40	EPA 6020B	CSW	14
		EPA 7470A	DRB	1
		SM 2540C	JPT	1
		EPA 300.0	RLC	3
269623005	PZ-41	EPA 6020B	CSW	14
		EPA 7470A	DRB	1
		SM 2540C	JPT	1
		EPA 300.0	RLC	3
269623006	EB-1-9-24-18	EPA 6020B	CSW	14
		EPA 7470A	DRB	1
		SM 2540C	JPT	1
		EPA 300.0	RLC	3
269623007	Dup-1	EPA 6020B	CSW	14
		EPA 7470A	DRB	1
		SM 2540C	JPT	1
		EPA 300.0	RLC	3
269623008	FB-1-9-24-18	EPA 6020B	CSW	14
		EPA 7470A	DRB	1
		SM 2540C	JPT	1
		EPA 300.0	RLC	3

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ANALYTICAL RESULTS

Project: Plant Yates Phase II
Pace Project No.: 269623

Sample: PZ-37		Lab ID: 269623001		Collected: 09/24/18 14:30		Received: 09/25/18 09:40		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00078	1	10/01/18 13:57	10/02/18 20:57	7440-36-0		
Arsenic	0.00094J	mg/L	0.0050	0.00057	1	10/01/18 13:57	10/02/18 20:57	7440-38-2		
Barium	0.047	mg/L	0.010	0.00078	1	10/01/18 13:57	10/02/18 20:57	7440-39-3		
Beryllium	0.00029J	mg/L	0.0030	0.000050	1	10/01/18 13:57	10/02/18 20:57	7440-41-7		
Boron	16.5	mg/L	2.0	0.20	50	10/01/18 13:57	10/02/18 21:03	7440-42-8	M6	
Cadmium	0.00069J	mg/L	0.0010	0.000093	1	10/01/18 13:57	10/02/18 20:57	7440-43-9		
Calcium	115	mg/L	25.0	0.69	50	10/01/18 13:57	10/02/18 21:03	7440-70-2	M6	
Chromium	ND	mg/L	0.010	0.0016	1	10/01/18 13:57	10/02/18 20:57	7440-47-3		
Cobalt	0.0071J	mg/L	0.010	0.00052	1	10/01/18 13:57	10/02/18 20:57	7440-48-4		
Lead	ND	mg/L	0.0050	0.00027	1	10/01/18 13:57	10/02/18 20:57	7439-92-1		
Lithium	0.028J	mg/L	0.050	0.00097	1	10/01/18 13:57	10/02/18 20:57	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.0019	1	10/01/18 13:57	10/02/18 20:57	7439-98-7		
Selenium	0.33	mg/L	0.010	0.0014	1	10/01/18 13:57	10/02/18 20:57	7782-49-2		
Thallium	ND	mg/L	0.0010	0.00014	1	10/01/18 13:57	10/02/18 20:57	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.000036	1	10/02/18 11:15	10/02/18 17:12	7439-97-6		
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	1090	mg/L	25.0	10.0	1		09/26/18 15:52			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Chloride	4.9	mg/L	0.25	0.024	1		09/28/18 19:11	16887-00-6		
Fluoride	ND	mg/L	0.30	0.029	1		09/28/18 19:11	16984-48-8		
Sulfate	674	mg/L	50.0	0.85	50		09/29/18 04:27	14808-79-8	M1	

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ANALYTICAL RESULTS

Project: Plant Yates Phase II

Pace Project No.: 269623

Sample: PZ-38		Lab ID: 269623002		Collected: 09/24/18 14:15		Received: 09/25/18 09:40		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Antimony	ND	mg/L	0.0030	0.00078	1	10/01/18 13:57	10/02/18 21:49	7440-36-0	
Arsenic	0.0017J	mg/L	0.0050	0.00057	1	10/01/18 13:57	10/02/18 21:49	7440-38-2	
Barium	0.021	mg/L	0.010	0.00078	1	10/01/18 13:57	10/02/18 21:49	7440-39-3	
Beryllium	0.0051	mg/L	0.0030	0.000050	1	10/01/18 13:57	10/02/18 21:49	7440-41-7	
Boron	18.4	mg/L	2.0	0.20	50	10/01/18 13:57	10/02/18 21:54	7440-42-8	
Cadmium	0.0027	mg/L	0.0010	0.000093	1	10/01/18 13:57	10/02/18 21:49	7440-43-9	
Calcium	172	mg/L	25.0	0.69	50	10/01/18 13:57	10/02/18 21:54	7440-70-2	
Chromium	ND	mg/L	0.010	0.0016	1	10/01/18 13:57	10/02/18 21:49	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	10/01/18 13:57	10/02/18 21:49	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	10/01/18 13:57	10/02/18 21:49	7439-92-1	
Lithium	0.0083J	mg/L	0.050	0.00097	1	10/01/18 13:57	10/02/18 21:49	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	10/01/18 13:57	10/02/18 21:49	7439-98-7	
Selenium	0.20	mg/L	0.010	0.0014	1	10/01/18 13:57	10/02/18 21:49	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	10/01/18 13:57	10/02/18 21:49	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00050	0.000036	1	10/02/18 11:15	10/02/18 17:26	7439-97-6	
2540C Total Dissolved Solids		Analytical Method: SM 2540C							
Total Dissolved Solids	1400	mg/L	25.0	10.0	1		09/26/18 15:52		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Chloride	5.9	mg/L	0.25	0.024	1		09/28/18 20:15	16887-00-6	
Fluoride	0.034J	mg/L	0.30	0.029	1		09/28/18 20:15	16984-48-8	
Sulfate	872	mg/L	50.0	0.85	50		09/29/18 04:50	14808-79-8	M1

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ANALYTICAL RESULTS

Project: Plant Yates Phase II

Pace Project No.: 269623

Sample: PZ-39		Lab ID: 269623003		Collected: 09/24/18 15:50		Received: 09/25/18 09:40		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00078	1	10/01/18 13:57	10/02/18 22:00	7440-36-0		
Arsenic	ND	mg/L	0.0050	0.00057	1	10/01/18 13:57	10/02/18 22:00	7440-38-2		
Barium	0.0071J	mg/L	0.010	0.00078	1	10/01/18 13:57	10/02/18 22:00	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000050	1	10/01/18 13:57	10/02/18 22:00	7440-41-7		
Boron	0.028J	mg/L	0.040	0.0039	1	10/01/18 13:57	10/02/18 22:00	7440-42-8		
Cadmium	ND	mg/L	0.0010	0.000093	1	10/01/18 13:57	10/02/18 22:00	7440-43-9		
Calcium	1.1	mg/L	0.50	0.014	1	10/01/18 13:57	10/02/18 22:00	7440-70-2		
Chromium	ND	mg/L	0.010	0.0016	1	10/01/18 13:57	10/02/18 22:00	7440-47-3		
Cobalt	ND	mg/L	0.010	0.00052	1	10/01/18 13:57	10/02/18 22:00	7440-48-4		
Lead	ND	mg/L	0.0050	0.00027	1	10/01/18 13:57	10/02/18 22:00	7439-92-1		
Lithium	0.0022J	mg/L	0.050	0.00097	1	10/01/18 13:57	10/02/18 22:00	7439-93-2		
Molybdenum	0.0035J	mg/L	0.010	0.0019	1	10/01/18 13:57	10/02/18 22:00	7439-98-7		
Selenium	0.0015J	mg/L	0.010	0.0014	1	10/01/18 13:57	10/02/18 22:00	7782-49-2		
Thallium	ND	mg/L	0.0010	0.00014	1	10/01/18 13:57	10/02/18 22:00	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.000036	1	10/02/18 11:15	10/02/18 17:29	7439-97-6		
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	82.0	mg/L	25.0	10.0	1		09/26/18 15:52			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Chloride	1.3	mg/L	0.25	0.024	1		09/28/18 20:36	16887-00-6		
Fluoride	ND	mg/L	0.30	0.029	1		09/28/18 20:36	16984-48-8		
Sulfate	21.2	mg/L	1.0	0.017	1		09/28/18 20:36	14808-79-8		

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ANALYTICAL RESULTS

Project: Plant Yates Phase II

Pace Project No.: 269623

Sample: PZ-40		Lab ID: 269623004		Collected: 09/24/18 17:05		Received: 09/25/18 09:40		Matrix: Water	
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Antimony	ND	mg/L	0.0030	0.00078	1	10/01/18 13:57	10/02/18 22:12	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	10/01/18 13:57	10/02/18 22:12	7440-38-2	
Barium	0.042	mg/L	0.010	0.00078	1	10/01/18 13:57	10/02/18 22:12	7440-39-3	
Beryllium	0.00019J	mg/L	0.0030	0.000050	1	10/01/18 13:57	10/02/18 22:12	7440-41-7	
Boron	0.099	mg/L	0.040	0.0039	1	10/01/18 13:57	10/02/18 22:12	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000093	1	10/01/18 13:57	10/02/18 22:12	7440-43-9	
Calcium	5.7	mg/L	0.50	0.014	1	10/01/18 13:57	10/02/18 22:12	7440-70-2	
Chromium	ND	mg/L	0.010	0.0016	1	10/01/18 13:57	10/02/18 22:12	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	10/01/18 13:57	10/02/18 22:12	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	10/01/18 13:57	10/02/18 22:12	7439-92-1	
Lithium	ND	mg/L	0.050	0.00097	1	10/01/18 13:57	10/02/18 22:12	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	10/01/18 13:57	10/02/18 22:12	7439-98-7	
Selenium	0.0026J	mg/L	0.010	0.0014	1	10/01/18 13:57	10/02/18 22:12	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	10/01/18 13:57	10/02/18 22:12	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00050	0.000036	1	10/02/18 11:15	10/02/18 17:31	7439-97-6	
2540C Total Dissolved Solids		Analytical Method: SM 2540C							
Total Dissolved Solids	107	mg/L	25.0	10.0	1		09/26/18 15:52		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Chloride	4.9	mg/L	0.25	0.024	1		09/28/18 20:57	16887-00-6	
Fluoride	ND	mg/L	0.30	0.029	1		09/28/18 20:57	16984-48-8	
Sulfate	39.7	mg/L	1.0	0.017	1		09/28/18 20:57	14808-79-8	

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ANALYTICAL RESULTS

Project: Plant Yates Phase II
Pace Project No.: 269623

Sample: PZ-41		Lab ID: 269623005		Collected: 09/24/18 16:18		Received: 09/25/18 09:40		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00078	1	10/01/18 13:57	10/02/18 22:23	7440-36-0		
Arsenic	0.0010J	mg/L	0.0050	0.00057	1	10/01/18 13:57	10/02/18 22:23	7440-38-2		
Barium	0.026	mg/L	0.010	0.00078	1	10/01/18 13:57	10/02/18 22:23	7440-39-3		
Beryllium	0.0032	mg/L	0.0030	0.000050	1	10/01/18 13:57	10/02/18 22:23	7440-41-7		
Boron	12.2	mg/L	2.0	0.20	50	10/01/18 13:57	10/02/18 22:29	7440-42-8		
Cadmium	0.00021J	mg/L	0.0010	0.000093	1	10/01/18 13:57	10/02/18 22:23	7440-43-9		
Calcium	38.5	mg/L	25.0	0.69	50	10/01/18 13:57	10/02/18 22:29	7440-70-2		
Chromium	ND	mg/L	0.010	0.0016	1	10/01/18 13:57	10/02/18 22:23	7440-47-3		
Cobalt	ND	mg/L	0.010	0.00052	1	10/01/18 13:57	10/02/18 22:23	7440-48-4		
Lead	ND	mg/L	0.0050	0.00027	1	10/01/18 13:57	10/02/18 22:23	7439-92-1		
Lithium	0.0037J	mg/L	0.050	0.00097	1	10/01/18 13:57	10/02/18 22:23	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.0019	1	10/01/18 13:57	10/02/18 22:23	7439-98-7		
Selenium	0.061	mg/L	0.010	0.0014	1	10/01/18 13:57	10/02/18 22:23	7782-49-2		
Thallium	ND	mg/L	0.0010	0.00014	1	10/01/18 13:57	10/02/18 22:23	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.000036	1	10/02/18 11:15	10/02/18 17:33	7439-97-6		
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	588	mg/L	25.0	10.0	1		09/26/18 15:52			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Chloride	3.3	mg/L	0.25	0.024	1		09/28/18 21:19	16887-00-6		
Fluoride	ND	mg/L	0.30	0.029	1		09/28/18 21:19	16984-48-8		
Sulfate	358	mg/L	50.0	0.85	50		09/29/18 05:34	14808-79-8		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Yates Phase II

Pace Project No.: 269623

Sample: EB-1-9-24-18		Lab ID: 269623006		Collected: 09/24/18 13:20		Received: 09/25/18 09:40		Matrix: Water	
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Antimony	ND	mg/L	0.0030	0.00078	1	10/01/18 13:57	10/02/18 22:34	7440-36-0	
Arsenic	0.00062J	mg/L	0.0050	0.00057	1	10/01/18 13:57	10/02/18 22:34	7440-38-2	
Barium	ND	mg/L	0.010	0.00078	1	10/01/18 13:57	10/02/18 22:34	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	10/01/18 13:57	10/02/18 22:34	7440-41-7	
Boron	0.011J	mg/L	0.040	0.0039	1	10/01/18 13:57	10/02/18 22:34	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000093	1	10/01/18 13:57	10/02/18 22:34	7440-43-9	
Calcium	0.021J	mg/L	0.50	0.014	1	10/01/18 13:57	10/02/18 22:34	7440-70-2	B
Chromium	ND	mg/L	0.010	0.0016	1	10/01/18 13:57	10/02/18 22:34	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	10/01/18 13:57	10/02/18 22:34	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	10/01/18 13:57	10/02/18 22:34	7439-92-1	
Lithium	ND	mg/L	0.050	0.00097	1	10/01/18 13:57	10/02/18 22:34	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	10/01/18 13:57	10/02/18 22:34	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	10/01/18 13:57	10/02/18 22:34	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	10/01/18 13:57	10/02/18 22:34	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00050	0.000036	1	10/02/18 11:15	10/02/18 17:36	7439-97-6	
2540C Total Dissolved Solids		Analytical Method: SM 2540C							
Total Dissolved Solids	ND	mg/L	25.0	10.0	1		09/26/18 15:52		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Chloride	0.068J	mg/L	0.25	0.024	1		09/28/18 21:40	16887-00-6	B
Fluoride	ND	mg/L	0.30	0.029	1		09/28/18 21:40	16984-48-8	
Sulfate	ND	mg/L	1.0	0.017	1		09/28/18 21:40	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Yates Phase II

Pace Project No.: 269623

Sample: Dup-1		Lab ID: 269623007		Collected: 09/24/18 00:00		Received: 09/25/18 09:40		Matrix: Water	
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Antimony	ND	mg/L	0.0030	0.00078	1	10/01/18 13:57	10/02/18 22:52	7440-36-0	
Arsenic	0.00065J	mg/L	0.0050	0.00057	1	10/01/18 13:57	10/02/18 22:52	7440-38-2	
Barium	0.0076J	mg/L	0.010	0.00078	1	10/01/18 13:57	10/02/18 22:52	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	10/01/18 13:57	10/02/18 22:52	7440-41-7	
Boron	0.020J	mg/L	0.040	0.0039	1	10/01/18 13:57	10/02/18 22:52	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000093	1	10/01/18 13:57	10/02/18 22:52	7440-43-9	
Calcium	1.2	mg/L	0.50	0.014	1	10/01/18 13:57	10/02/18 22:52	7440-70-2	
Chromium	ND	mg/L	0.010	0.0016	1	10/01/18 13:57	10/03/18 15:21	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	10/01/18 13:57	10/03/18 15:21	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	10/01/18 13:57	10/02/18 22:52	7439-92-1	
Lithium	0.0024J	mg/L	0.050	0.00097	1	10/01/18 13:57	10/02/18 22:52	7439-93-2	
Molybdenum	0.0039J	mg/L	0.010	0.0019	1	10/01/18 13:57	10/02/18 22:52	7439-98-7	
Selenium	0.0016J	mg/L	0.010	0.0014	1	10/01/18 13:57	10/02/18 22:52	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	10/01/18 13:57	10/02/18 22:52	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00050	0.000036	1	10/02/18 11:15	10/02/18 17:38	7439-97-6	
2540C Total Dissolved Solids		Analytical Method: SM 2540C							
Total Dissolved Solids	84.0	mg/L	25.0	10.0	1		09/26/18 15:52		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Chloride	1.3	mg/L	0.25	0.024	1		09/28/18 22:01	16887-00-6	
Fluoride	ND	mg/L	0.30	0.029	1		09/28/18 22:01	16984-48-8	
Sulfate	21.1	mg/L	1.0	0.017	1		09/28/18 22:01	14808-79-8	

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ANALYTICAL RESULTS

Project: Plant Yates Phase II

Pace Project No.: 269623

Sample: FB-1-9-24-18		Lab ID: 269623008		Collected: 09/24/18 15:40		Received: 09/25/18 09:40		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00078	1	10/01/18 13:57	10/02/18 23:03	7440-36-0		
Arsenic	ND	mg/L	0.0050	0.00057	1	10/01/18 13:57	10/02/18 23:03	7440-38-2		
Barium	ND	mg/L	0.010	0.00078	1	10/01/18 13:57	10/02/18 23:03	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000050	1	10/01/18 13:57	10/02/18 23:03	7440-41-7		
Boron	ND	mg/L	0.040	0.0039	1	10/01/18 13:57	10/02/18 23:03	7440-42-8		
Cadmium	ND	mg/L	0.0010	0.000093	1	10/01/18 13:57	10/02/18 23:03	7440-43-9		
Calcium	0.029J	mg/L	0.50	0.014	1	10/01/18 13:57	10/02/18 23:03	7440-70-2	B	
Chromium	ND	mg/L	0.010	0.0016	1	10/01/18 13:57	10/03/18 15:27	7440-47-3		
Cobalt	ND	mg/L	0.010	0.00052	1	10/01/18 13:57	10/03/18 15:27	7440-48-4		
Lead	ND	mg/L	0.0050	0.00027	1	10/01/18 13:57	10/02/18 23:03	7439-92-1		
Lithium	ND	mg/L	0.050	0.00097	1	10/01/18 13:57	10/02/18 23:03	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.0019	1	10/01/18 13:57	10/02/18 23:03	7439-98-7		
Selenium	ND	mg/L	0.010	0.0014	1	10/01/18 13:57	10/02/18 23:03	7782-49-2		
Thallium	ND	mg/L	0.0010	0.00014	1	10/01/18 13:57	10/02/18 23:03	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.000036	1	10/02/18 11:15	10/02/18 17:41	7439-97-6		
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	ND	mg/L	25.0	10.0	1		09/26/18 15:52			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Chloride	0.068J	mg/L	0.25	0.024	1		09/28/18 22:22	16887-00-6	B	
Fluoride	ND	mg/L	0.30	0.029	1		09/28/18 22:22	16984-48-8		
Sulfate	ND	mg/L	1.0	0.017	1		09/28/18 22:22	14808-79-8		

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Yates Phase II
Pace Project No.: 269623

QC Batch: 14520 Analysis Method: EPA 7470A
QC Batch Method: EPA 7470A Analysis Description: 7470 Mercury
Associated Lab Samples: 269623001, 269623002, 269623003, 269623004, 269623005, 269623006, 269623007, 269623008

METHOD BLANK: 64902 Matrix: Water
Associated Lab Samples: 269623001, 269623002, 269623003, 269623004, 269623005, 269623006, 269623007, 269623008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00050	0.000036	10/02/18 17:07	

LABORATORY CONTROL SAMPLE: 64903

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	.0025	0.0025	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 64904 64905

Parameter	Units	269623001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	mg/L	ND	.0025	.0025	0.0026	0.0026	101	104	75-125	3	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Yates Phase II
Pace Project No.: 269623

QC Batch: 14492 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020B MET
Associated Lab Samples: 269623001, 269623002, 269623003, 269623004, 269623005, 269623006, 269623007, 269623008

METHOD BLANK: 64829 Matrix: Water
Associated Lab Samples: 269623001, 269623002, 269623003, 269623004, 269623005, 269623006, 269623007, 269623008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00078	10/02/18 20:46	
Arsenic	mg/L	ND	0.0050	0.00057	10/02/18 20:46	
Barium	mg/L	ND	0.010	0.00078	10/02/18 20:46	
Beryllium	mg/L	ND	0.0030	0.000050	10/02/18 20:46	
Boron	mg/L	ND	0.040	0.0039	10/02/18 20:46	
Cadmium	mg/L	ND	0.0010	0.000093	10/02/18 20:46	
Calcium	mg/L	0.026J	0.50	0.014	10/02/18 20:46	
Chromium	mg/L	ND	0.010	0.0016	10/02/18 20:46	
Cobalt	mg/L	ND	0.010	0.00052	10/02/18 20:46	
Lead	mg/L	ND	0.0050	0.00027	10/02/18 20:46	
Lithium	mg/L	ND	0.050	0.00097	10/02/18 20:46	
Molybdenum	mg/L	ND	0.010	0.0019	10/02/18 20:46	
Selenium	mg/L	ND	0.010	0.0014	10/02/18 20:46	
Thallium	mg/L	ND	0.0010	0.00014	10/02/18 20:46	

LABORATORY CONTROL SAMPLE: 64830

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	.1	0.10	103	80-120	
Arsenic	mg/L	.1	0.099	99	80-120	
Barium	mg/L	.1	0.098	98	80-120	
Beryllium	mg/L	.1	0.10	102	80-120	
Boron	mg/L	1	1.0	102	80-120	
Cadmium	mg/L	.1	0.10	103	80-120	
Calcium	mg/L	1	1.0	104	80-120	
Chromium	mg/L	.1	0.10	105	80-120	
Cobalt	mg/L	.1	0.11	107	80-120	
Lead	mg/L	.1	0.10	101	80-120	
Lithium	mg/L	.1	0.11	107	80-120	
Molybdenum	mg/L	.1	0.10	103	80-120	
Selenium	mg/L	.1	0.10	102	80-120	
Thallium	mg/L	.1	0.099	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 64831 64832

Parameter	Units	269623001 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
			Spike Conc.	MS Result	MSD Result						
Antimony	mg/L	ND	.1	0.11	0.11	107	107	75-125	0	20	

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QUALITY CONTROL DATA

Project: Plant Yates Phase II

Pace Project No.: 269623

Parameter	Units	MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 64831		64832		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	RPD	Qual
		269623001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result								
Arsenic	mg/L	0.00094J	.1	.1	0.10	0.10	103	102	75-125	1	20		
Barium	mg/L	0.047	.1	.1	0.15	0.15	104	99	75-125	3	20		
Beryllium	mg/L	0.00029J	.1	.1	0.091	0.089	90	89	75-125	2	20		
Boron	mg/L	16.5	1	1	19.0	18.8	254	226	75-125	1	20	M6	
Cadmium	mg/L	0.00069J	.1	.1	0.10	0.10	103	102	75-125	0	20		
Calcium	mg/L	115	1	1	123	118	748	314	75-125	4	20	M6	
Chromium	mg/L	ND	.1	.1	0.10	0.10	102	100	75-125	2	20		
Cobalt	mg/L	0.0071J	.1	.1	0.11	0.11	102	101	75-125	2	20		
Lead	mg/L	ND	.1	.1	0.097	0.092	97	92	75-125	5	20		
Lithium	mg/L	0.028J	.1	.1	0.12	0.12	92	90	75-125	2	20		
Molybdenum	mg/L	ND	.1	.1	0.11	0.10	107	103	75-125	4	20		
Selenium	mg/L	0.33	.1	.1	0.44	0.42	107	95	75-125	3	20		
Thallium	mg/L	ND	.1	.1	0.096	0.093	96	93	75-125	3	20		

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Yates Phase II
Pace Project No.: 269623

QC Batch: 14248 Analysis Method: SM 2540C
QC Batch Method: SM 2540C Analysis Description: 2540C Total Dissolved Solids
Associated Lab Samples: 269623001, 269623002, 269623003, 269623004, 269623005, 269623006, 269623007, 269623008

LABORATORY CONTROL SAMPLE: 63405

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	405	101	84-108	

SAMPLE DUPLICATE: 63406

Parameter	Units	269623001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1090	1080	1	10	

SAMPLE DUPLICATE: 63407

Parameter	Units	269684001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	121	119	2	10	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Yates Phase II
Pace Project No.: 269623

QC Batch: 14360 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 269623001, 269623002, 269623003, 269623004, 269623005, 269623006, 269623007, 269623008

METHOD BLANK: 64130 Matrix: Water
Associated Lab Samples: 269623001, 269623002, 269623003, 269623004, 269623005, 269623006, 269623007, 269623008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	0.059J	0.25	0.024	09/28/18 18:29	
Fluoride	mg/L	ND	0.30	0.029	09/28/18 18:29	
Sulfate	mg/L	ND	1.0	0.017	09/28/18 18:29	

LABORATORY CONTROL SAMPLE: 64131

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	10	10.1	101	90-110	
Fluoride	mg/L	10	10.3	103	90-110	
Sulfate	mg/L	10	10.1	101	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 64132 64133

Parameter	Units	269623001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	4.9	10	10	14.6	14.6	97	97	90-110	0	15	
Fluoride	mg/L	ND	10	10	10.4	10.5	104	105	90-110	0	15	
Sulfate	mg/L	674	10	10	322	322	-3520	-3520	90-110	0	15	E,M1

MATRIX SPIKE SAMPLE: 64134

Parameter	Units	269623002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	5.9	10	15.3	94	90-110	
Fluoride	mg/L	0.034J	10	10.8	108	90-110	
Sulfate	mg/L	872	10	369	-5030	90-110	E,M1

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QUALIFIERS

Project: Plant Yates Phase II

Pace Project No.: 269623

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

B Analyte was detected in the associated method blank.

E Analyte concentration exceeded the calibration range. The reported result is estimated.

M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

M6 Matrix spike and Matrix spike duplicate recovery not evaluated against control limits due to sample dilution.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Yates Phase II
Pace Project No.: 269623

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
269623001	PZ-37	EPA 3005A	14492	EPA 6020B	14586
269623002	PZ-38	EPA 3005A	14492	EPA 6020B	14586
269623003	PZ-39	EPA 3005A	14492	EPA 6020B	14586
269623004	PZ-40	EPA 3005A	14492	EPA 6020B	14586
269623005	PZ-41	EPA 3005A	14492	EPA 6020B	14586
269623006	EB-1-9-24-18	EPA 3005A	14492	EPA 6020B	14586
269623007	Dup-1	EPA 3005A	14492	EPA 6020B	14586
269623008	FB-1-9-24-18	EPA 3005A	14492	EPA 6020B	14586
269623001	PZ-37	EPA 7470A	14520	EPA 7470A	14584
269623002	PZ-38	EPA 7470A	14520	EPA 7470A	14584
269623003	PZ-39	EPA 7470A	14520	EPA 7470A	14584
269623004	PZ-40	EPA 7470A	14520	EPA 7470A	14584
269623005	PZ-41	EPA 7470A	14520	EPA 7470A	14584
269623006	EB-1-9-24-18	EPA 7470A	14520	EPA 7470A	14584
269623007	Dup-1	EPA 7470A	14520	EPA 7470A	14584
269623008	FB-1-9-24-18	EPA 7470A	14520	EPA 7470A	14584
269623001	PZ-37	SM 2540C	14248		
269623002	PZ-38	SM 2540C	14248		
269623003	PZ-39	SM 2540C	14248		
269623004	PZ-40	SM 2540C	14248		
269623005	PZ-41	SM 2540C	14248		
269623006	EB-1-9-24-18	SM 2540C	14248		
269623007	Dup-1	SM 2540C	14248		
269623008	FB-1-9-24-18	SM 2540C	14248		
269623001	PZ-37	EPA 300.0	14360		
269623002	PZ-38	EPA 300.0	14360		
269623003	PZ-39	EPA 300.0	14360		
269623004	PZ-40	EPA 300.0	14360		
269623005	PZ-41	EPA 300.0	14360		
269623006	EB-1-9-24-18	EPA 300.0	14360		
269623007	Dup-1	EPA 300.0	14360		
269623008	FB-1-9-24-18	EPA 300.0	14360		

REPORT OF LABORATORY ANALYSIS

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CHAIN OF CUSTODY RECORD

Pace Analytical Services, Inc.
 110 TECHNOLOGY PARKWAY, PEACHTREE CORNERS, GA 30092
 (770) 734-4200 : FAX (770) 734-4201 : www.asi-lab.com

PAGE: 1 OF 1

CLIENT NAME: Georgia Power CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER: 241 Ralph McGill Blvd SE B10185 Atlanta, GA 30308 404-506-7239 REPORT TO: Joju Abraham REQUESTED COMPLETION DATE: laburch@southernco.com PROJECT NAME/STATE: Plant Yates - Additional Phase 2 Facility Wells PROJECT #: Phase 2CCR		CONTAINER TYPE: PRESERVATION # of 3 7 3		ANALYSIS REQUESTED Metals App. III & IV (EPA 5020/7470) Cl, F, SO ₄ & TDS (EPA 800.0 & SM 2540C) Radium 226 & 228 (SW-846 9315/9320)		CONTAINER TYPE P - PLASTIC A - AMBER GLASS G - CLEAR GLASS V - VOA VIAL S - STERILE O - OTHER		PRESERVATION 1 - HCl, ≤6°C 2 - H ₂ SO ₄ , ≤6°C 3 - HNO ₃ 4 - NaOH, ≤6°C 5 - NaOH/ZnAc, ≤6°C 6 - Na ₂ S ₂ O ₃ , ≤6°C 7 - ≤6°C not frozen	
CONTAINERS									
Collection DATE	Collection TIME	MATRIX CODE	GRADES	SAMPLE IDENTIFICATION	CONTAINER TYPE	ANALYSIS REQUESTED	CONTAINER TYPE	PRESERVATION	REMARKS/ADDITIONAL INFORMATION
9-24-18	1430	GW	✓	PZ-37	4	Metals App. III & IV (EPA 5020/7470)	P - PLASTIC	1 - HCl, ≤6°C	
9-24-18	1415	GW	✓	PZ-38	4	Cl, F, SO ₄ & TDS (EPA 800.0 & SM 2540C)	A - AMBER GLASS	2 - H ₂ SO ₄ , ≤6°C	
9-24-18	1550	GW	✓	PZ-39	4	Radium 226 & 228 (SW-846 9315/9320)	G - CLEAR GLASS	3 - HNO ₃	
9-24-18	1705	GW	✓	PZ-40	4		V - VOA VIAL	4 - NaOH, ≤6°C	
9-24-18	1618	GW	✓	PZ-41	4		S - STERILE	5 - NaOH/ZnAc, ≤6°C	
9-24-18	1320	W	✓	EB-1-9-24-18	4		O - OTHER	6 - Na ₂ S ₂ O ₃ , ≤6°C	
9-24-18	---	GW	✓	DUP-1	4			7 - ≤6°C not frozen	
9-24-18	1540	W	✓	FB-1-9-24-18	4				

WO#: 269623



SAMPLED BY AND TITLE: P. K. ... H. Auld (AG)	DATE/TIME: 9-24-18 / 1900	RELINQUISHED BY: [Signature]	DATE/TIME: 9-25-18 / 1940
RECEIVED BY: [Signature]	DATE/TIME: 9-25-18 / 1940	RELINQUISHED BY: [Signature]	DATE/TIME: 9-25-18 / 1940
RECEIVED BY LAB: [Signature]	DATE/TIME: 9/25/18 0940	SAMPLE SHIPPED VIA: UPS	LAB #: FOR LAB USE ONLY
Inspected: Yes No NA Temperature: Min. 1.7 Max.	Intact: Broken Not Present	Courier: # of Coolers	Client: OTHER FS



Sample Condition Upon Receipt

Client Name: GIA Power

Project # _____

Courier: Fed Ex UPS USPS Client Commercial Pace Other
Tracking #: _____

WO#: 269623
PM: BM Due Date: 10/02/18
CLIENT: GAPower-CCR

Custody Seal on Cooler/Box Present: yes no Seals intact: yes no

Packing Material: Bubble Wrap Bubble Bags None Other

Thermometer Used 83 Type of Ice: Wet Blue None Samples on ice, cooling process has begun

Cooler Temperature 1.7 Biological Tissue is Frozen: Yes No Temp should be above freezing to 6°C

Date and Initials of person examining contents: 9/25/18 MA

Comments:

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.		
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.		
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.		
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.		
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.		
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.		
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.		
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.		
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.		
-Pace Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A			
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.		
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.		
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.		
-Includes date/time/ID/Analysis Matrix: <u>GIA</u>				
All containers needing preservation have been checked.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	13.		
All containers needing preservation are found to be in compliance with EPA recommendation.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A			
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Initial when completed	Lot # of added preservative	
Samples checked for dechlorination:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.		
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.		
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	16.		
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A			
Pace Trip Blank Lot # (if purchased): _____				

Client Notification/ Resolution:

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Field Data Required? Y / N

Project Manager Review: _____ **Date:** _____

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

October 17, 2018

Joju Abraham
Georgia Power - Coal Combustion Residuals
2480 Maner Road
Atlanta, GA 30339

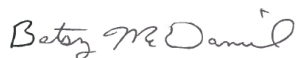
RE: Project: Plant Yates Phase II
Pace Project No.: 269624

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on September 25, 2018. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Betsy McDaniel
betsy.mcdaniel@pacelabs.com
(770)734-4200
Project Manager

Enclosures

cc: Maria Padilla, Georgia Power
Chris Parker, Atlantic Coast Consulting
Evan Perry, Atlantic Coast Consulting
Lauren Petty, Southern Company Services, Inc.
Rebecca Thornton, Pace Analytical Atlanta



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: Plant Yates Phase II

Pace Project No.: 269624

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601

ANAB DOD-ELAP Rad Accreditation #: L2417

Alabama Certification #: 41590

Arizona Certification #: AZ0734

Arkansas Certification

California Certification #: 04222CA

Colorado Certification #: PA01547

Connecticut Certification #: PH-0694

Delaware Certification

EPA Region 4 DW Rad

Florida/TNI Certification #: E87683

Georgia Certification #: C040

Guam Certification

Hawaii Certification

Idaho Certification

Illinois Certification

Indiana Certification

Iowa Certification #: 391

Kansas/TNI Certification #: E-10358

Kentucky Certification #: KY90133

KY WW Permit #: KY0098221

KY WW Permit #: KY0000221

Louisiana DHH/TNI Certification #: LA180012

Louisiana DEQ/TNI Certification #: 4086

Maine Certification #: 2017020

Maryland Certification #: 308

Massachusetts Certification #: M-PA1457

Michigan/PADEP Certification #: 9991

Missouri Certification #: 235

Montana Certification #: Cert0082

Nebraska Certification #: NE-OS-29-14

Nevada Certification #: PA014572018-1

New Hampshire/TNI Certification #: 297617

New Jersey/TNI Certification #: PA051

New Mexico Certification #: PA01457

New York/TNI Certification #: 10888

North Carolina Certification #: 42706

North Dakota Certification #: R-190

Ohio EPA Rad Approval: #41249

Oregon/TNI Certification #: PA200002-010

Pennsylvania/TNI Certification #: 65-00282

Puerto Rico Certification #: PA01457

Rhode Island Certification #: 65-00282

South Dakota Certification

Tennessee Certification #: 02867

Texas/TNI Certification #: T104704188-17-3

Utah/TNI Certification #: PA014572017-9

USDA Soil Permit #: P330-17-00091

Vermont Dept. of Health: ID# VT-0282

Virgin Island/PADEP Certification

Virginia/VELAP Certification #: 9526

Washington Certification #: C868

West Virginia DEP Certification #: 143

West Virginia DHHR Certification #: 9964C

Wisconsin Approve List for Rad

Wyoming Certification #: 8TMS-L

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: Plant Yates Phase II

Pace Project No.: 269624

Lab ID	Sample ID	Matrix	Date Collected	Date Received
269624001	PZ-37	Water	09/24/18 14:30	09/25/18 09:40
269624002	PZ-38	Water	09/24/18 14:15	09/25/18 09:40
269624003	PZ-39	Water	09/24/18 15:50	09/25/18 09:40
269624004	PZ-40	Water	09/24/18 17:05	09/25/18 09:40
269624005	PZ-41	Water	09/24/18 16:18	09/25/18 09:40
269624006	EB-1-9-24-18	Water	09/24/18 13:20	09/25/18 09:40
269624007	Dup-1	Water	09/24/18 00:00	09/25/18 09:40
269624008	FB-1-9-24-18	Water	09/24/18 15:40	09/25/18 09:40

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SAMPLE ANALYTE COUNT

Project: Plant Yates Phase II

Pace Project No.: 269624

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
269624001	PZ-37	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
269624002	PZ-38	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
269624003	PZ-39	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
269624004	PZ-40	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
269624005	PZ-41	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
269624006	EB-1-9-24-18	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
269624007	Dup-1	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
269624008	FB-1-9-24-18	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Phase II

Pace Project No.: 269624

Sample: PZ-37 **Lab ID: 269624001** Collected: 09/24/18 14:30 Received: 09/25/18 09:40 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.753 ± 0.227 (0.202) C:94% T:NA	pCi/L	10/09/18 20:08	13982-63-3	
Radium-228	EPA 9320	1.51 ± 0.569 (0.871) C:75% T:93%	pCi/L	10/15/18 16:15	15262-20-1	
Total Radium	Total Radium Calculation	2.26 ± 0.796 (1.07)	pCi/L	10/16/18 14:45	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Phase II

Pace Project No.: 269624

Sample: PZ-38 **Lab ID: 269624002** Collected: 09/24/18 14:15 Received: 09/25/18 09:40 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.516 ± 0.180 (0.171) C:102% T:NA	pCi/L	10/09/18 20:09	13982-63-3	
Radium-228	EPA 9320	1.00 ± 0.568 (1.05) C:77% T:89%	pCi/L	10/15/18 16:15	15262-20-1	
Total Radium	Total Radium Calculation	1.52 ± 0.748 (1.22)	pCi/L	10/16/18 14:45	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Phase II

Pace Project No.: 269624

Sample: PZ-39 **Lab ID: 269624003** Collected: 09/24/18 15:50 Received: 09/25/18 09:40 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.310 ± 0.168 (0.267) C:96% T:NA	pCi/L	10/09/18 20:09	13982-63-3	
Radium-228	EPA 9320	0.457 ± 0.556 (1.18) C:71% T:85%	pCi/L	10/15/18 16:15	15262-20-1	
Total Radium	Total Radium Calculation	0.767 ± 0.724 (1.45)	pCi/L	10/16/18 14:45	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Phase II

Pace Project No.: 269624

Sample: PZ-40 **Lab ID: 269624004** Collected: 09/24/18 17:05 Received: 09/25/18 09:40 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.473 ± 0.181 (0.200) C:97% T:NA	pCi/L	10/09/18 20:09	13982-63-3	
Radium-228	EPA 9320	0.492 ± 0.525 (1.10) C:73% T:83%	pCi/L	10/15/18 16:15	15262-20-1	
Total Radium	Total Radium Calculation	0.965 ± 0.706 (1.30)	pCi/L	10/16/18 14:45	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Phase II

Pace Project No.: 269624

Sample: PZ-41 **Lab ID: 269624005** Collected: 09/24/18 16:18 Received: 09/25/18 09:40 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.391 ± 0.161 (0.204) C:101% T:NA	pCi/L	10/09/18 20:13	13982-63-3	
Radium-228	EPA 9320	1.00 ± 0.508 (0.896) C:78% T:89%	pCi/L	10/15/18 16:15	15262-20-1	
Total Radium	Total Radium Calculation	1.39 ± 0.669 (1.10)	pCi/L	10/16/18 14:45	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Phase II

Pace Project No.: 269624

Sample: EB-1-9-24-18 **Lab ID: 269624006** Collected: 09/24/18 13:20 Received: 09/25/18 09:40 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.686 ± 0.212 (0.213) C:101% T:NA	pCi/L	10/09/18 20:13	13982-63-3	
Radium-228	EPA 9320	0.796 ± 0.552 (1.07) C:73% T:84%	pCi/L	10/15/18 16:15	15262-20-1	
Total Radium	Total Radium Calculation	1.48 ± 0.764 (1.28)	pCi/L	10/16/18 14:45	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Phase II

Pace Project No.: 269624

Sample: Dup-1 **Lab ID: 269624007** Collected: 09/24/18 00:00 Received: 09/25/18 09:40 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.249 ± 0.155 (0.269) C:101% T:NA	pCi/L	10/09/18 20:14	13982-63-3	
Radium-228	EPA 9320	1.20 ± 0.549 (0.925) C:72% T:89%	pCi/L	10/15/18 16:15	15262-20-1	
Total Radium	Total Radium Calculation	1.45 ± 0.704 (1.19)	pCi/L	10/16/18 14:45	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Phase II

Pace Project No.: 269624

Sample: FB-1-9-24-18 **Lab ID: 269624008** Collected: 09/24/18 15:40 Received: 09/25/18 09:40 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.260 ± 0.144 (0.225) C:99% T:NA	pCi/L	10/09/18 20:14	13982-63-3	
Radium-228	EPA 9320	0.201 ± 0.519 (1.16) C:75% T:78%	pCi/L	10/15/18 16:15	15262-20-1	
Total Radium	Total Radium Calculation	0.461 ± 0.663 (1.39)	pCi/L	10/16/18 14:45	7440-14-4	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Yates Phase II

Pace Project No.: 269624

QC Batch: 315078

Analysis Method: EPA 9315

QC Batch Method: EPA 9315

Analysis Description: 9315 Total Radium

Associated Lab Samples: 269624001, 269624002, 269624003, 269624004, 269624005, 269624006, 269624007, 269624008

METHOD BLANK: 1537989

Matrix: Water

Associated Lab Samples: 269624001, 269624002, 269624003, 269624004, 269624005, 269624006, 269624007, 269624008

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.157 ± 0.116 (0.204) C:102% T:NA	pCi/L	10/09/18 20:06	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Yates Phase II

Pace Project No.: 269624

QC Batch: 314779

Analysis Method: EPA 9320

QC Batch Method: EPA 9320

Analysis Description: 9320 Radium 228

Associated Lab Samples: 269624001, 269624002, 269624003, 269624004, 269624005, 269624006, 269624007, 269624008

METHOD BLANK: 1536305

Matrix: Water

Associated Lab Samples: 269624001, 269624002, 269624003, 269624004, 269624005, 269624006, 269624007, 269624008

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.841 ± 0.406 (0.684) C:77% T:85%	pCi/L	10/15/18 16:16	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: Plant Yates Phase II
Pace Project No.: 269624

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval).

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-PA Pace Analytical Services - Greensburg

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Yates Phase II

Pace Project No.: 269624

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
269624001	PZ-37	EPA 9315	315078		
269624002	PZ-38	EPA 9315	315078		
269624003	PZ-39	EPA 9315	315078		
269624004	PZ-40	EPA 9315	315078		
269624005	PZ-41	EPA 9315	315078		
269624006	EB-1-9-24-18	EPA 9315	315078		
269624007	Dup-1	EPA 9315	315078		
269624008	FB-1-9-24-18	EPA 9315	315078		
269624001	PZ-37	EPA 9320	314779		
269624002	PZ-38	EPA 9320	314779		
269624003	PZ-39	EPA 9320	314779		
269624004	PZ-40	EPA 9320	314779		
269624005	PZ-41	EPA 9320	314779		
269624006	EB-1-9-24-18	EPA 9320	314779		
269624007	Dup-1	EPA 9320	314779		
269624008	FB-1-9-24-18	EPA 9320	314779		
269624001	PZ-37	Total Radium Calculation	316882		
269624002	PZ-38	Total Radium Calculation	316882		
269624003	PZ-39	Total Radium Calculation	316882		
269624004	PZ-40	Total Radium Calculation	316882		
269624005	PZ-41	Total Radium Calculation	316882		
269624006	EB-1-9-24-18	Total Radium Calculation	316882		
269624007	Dup-1	Total Radium Calculation	316882		
269624008	FB-1-9-24-18	Total Radium Calculation	316882		

REPORT OF LABORATORY ANALYSIS

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Sample Condition Upon Receipt



Client Name: GPA Power

Project # _____

WO#: 269624

PM: BM

Due Date: 10/23/18

CLIENT: GAPower-CCR

Courier: Fed Ex UPS USPS Client Commercial Pace Other _____

Tracking #: _____

Custody Seal on Cooler/Box Present: yes no Seals intact: yes no

Packing Material: Bubble Wrap Bubble Bags None Other _____

Thermometer Used 83

Type of Ice: Wet Blue None

Samples on ice, cooling process has begun

Cooler Temperature 1.7

Biological Tissue is Frozen: Yes No

Temp should be above freezing to 6°C

Comments:

Date and Initials of person examining contents: 9/25/18 MA

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.		
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.		
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.		
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.		
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.		
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.		
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.		
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.		
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.		
-Pace Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A			
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.		
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.		
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.		
-Includes date/time/ID/Analysis Matrix:	<u>GPA</u>			
All containers needing preservation have been checked.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	13.		
All containers needing preservation are found to be in compliance with EPA recommendation.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A			
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Initial when completed	Lot # of added preservative	
Samples checked for dechlorination:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.		
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.		
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	16.		
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A			
Pace Trip Blank Lot # (if purchased):	_____			

Client Notification/ Resolution:

Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____

Date: _____

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

Product Name: Low-Flow System

Date: 2018-09-20 12:29:22

Project Information:

Operator Name Chris Parker
Company Name ACC
Project Name Plant Yates - Phase 2
Site Name Plant Yates - Phase 2 CCR
Latitude 33° 27' 27.71"
Longitude -84° -53' -49.99"
Sonde SN 466086
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type QED
Tubing Type Bladder
Tubing Diameter .25 in
Tubing Length 60 ft

Pump placement from TOC 55 ft

Well Information:

Well ID YGWC-42
Well diameter 2 in
Well Total Depth 60 ft
Screen Length 10 ft
Depth to Water 29.37 ft

Pumping Information:

Final Pumping Rate 130 mL/min
Total System Volume 1.064164 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 15 in
Total Volume Pumped 7.2 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	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	12:07:14	1800.02	21.41	5.64	1327.80	7.43	30.50	0.58	82.67
Last 5	12:12:14	2100.01	20.87	5.65	1329.30	6.95	30.60	0.54	82.64
Last 5	12:17:14	2400.01	22.14	5.66	1345.68	5.50	30.60	0.57	81.66
Last 5	12:22:14	2700.00	21.19	5.61	1365.68	5.13	30.60	0.58	84.28
Last 5	12:27:14	3000.00	21.32	5.63	1386.01	4.86	30.60	0.56	83.89
Variance 0			1.26	0.01	16.37			0.04	-0.98
Variance 1			-0.95	-0.06	20.01			0.01	2.62
Variance 2			0.14	0.02	20.33			-0.02	-0.39

Notes

Collected at 12:30. Sunny 80s.

Grab Samples

Product Name: Low-Flow System

Date: 2018-09-20 10:54:15

Project Information:

Operator Name Chris Parker
Company Name ACC
Project Name Plant Yates - Phase 2
Site Name Plant Yates - Phase 2 CCR
Latitude 33° 27' 27.71"
Longitude -84° -53' -49.99"
Sonde SN 466086
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type QED
Tubing Type Bladder
Tubing Diameter .25 in
Tubing Length 80 ft

Pump placement from TOC 75 ft

Well Information:

Well ID YGWC-43
Well diameter 2 in
Well Total Depth 80.00 ft
Screen Length 10 ft
Depth to Water 16.33 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 1.257218 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 3 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	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	10:32:14	600.03	19.15	5.92	514.10	5.86	16.50	0.11	0.45
Last 5	10:37:14	900.02	19.07	5.75	523.74	4.72	16.50	0.09	-1.97
Last 5	10:42:14	1200.02	18.93	5.70	527.32	4.80	16.50	0.09	-1.46
Last 5	10:47:18	1504.02	18.85	5.68	532.25	4.03	16.50	0.10	-1.33
Last 5	10:52:18	1804.02	18.82	5.69	535.63	4.18	16.50	0.10	-1.01
Variance 0			-0.14	-0.05	3.58			0.00	0.51
Variance 1			-0.07	-0.02	4.93			0.01	0.13
Variance 2			-0.03	0.01	3.38			0.00	0.32

Notes

Collected at 10:55. Sunny 80s. EB-1 here at 09:55

Grab Samples

September 28, 2018

Joju Abraham
Georgia Power - Coal Combustion Residuals
2480 Maner Road
Atlanta, GA 30339


RE: Project: Plant Yates Phase II
Pace Project No.: 269556

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on September 21, 2018. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Betsy McDaniel
betsy.mcdaniel@pacelabs.com
(770)734-4200
Project Manager

Enclosures

cc: Maria Padilla, Georgia Power
Chris Parker, Atlantic Coast Consulting
Evan Perry, Atlantic Coast Consulting
Lauren Petty, Southern Company Services, Inc.
Rebecca Thornton, Pace Analytical Atlanta



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: Plant Yates Phase II

Pace Project No.: 269556

Atlanta Certification IDs

110 Technology Parkway Peachtree Corners, GA 30092

Florida DOH Certification #: E87315

Georgia DW Inorganics Certification #: 812

Georgia DW Microbiology Certification #: 812

North Carolina Certification #: 381

South Carolina Certification #: 98011001

Texas Certification #: T104704397-08-TX

Virginia Certification #: 460204

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SAMPLE SUMMARY

Project: Plant Yates Phase II

Pace Project No.: 269556

Lab ID	Sample ID	Matrix	Date Collected	Date Received
269556001	YGWA-47	Water	09/19/18 10:35	09/21/18 09:30
269556002	YGWC-42	Water	09/20/18 12:30	09/21/18 09:30
269556003	YGWC-43	Water	09/20/18 10:55	09/21/18 09:30
269556004	YGWC-44	Water	09/19/18 13:15	09/21/18 09:30
269556005	YGWC-45	Water	09/19/18 14:50	09/21/18 09:30
269556006	YGWC-46	Water	09/19/18 12:00	09/21/18 09:30
269556007	YGWC-49	Water	09/20/18 13:55	09/21/18 09:30
269556008	EB-1-9-20-18	Water	09/20/18 09:55	09/21/18 09:30
269556009	Dup-1	Water	09/20/18 00:00	09/21/18 09:30
269556010	FB-1-9-19-18	Water	09/19/18 14:20	09/21/18 09:30

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SAMPLE ANALYTE COUNT

Project: Plant Yates Phase II

Pace Project No.: 269556

Lab ID	Sample ID	Method	Analysts	Analytes Reported
269556001	YGWA-47	EPA 6020B	CSW	14
		EPA 7470A	DRB	1
		SM 2540C	JPT	1
		EPA 300.0	RLC	3
269556002	YGWC-42	EPA 6020B	CSW	14
		EPA 7470A	DRB	1
		SM 2540C	JPT	1
		EPA 300.0	RLC	3
269556003	YGWC-43	EPA 6020B	CSW	14
		EPA 7470A	DRB	1
		SM 2540C	JPT	1
		EPA 300.0	RLC	3
269556004	YGWC-44	EPA 6020B	CSW	14
		EPA 7470A	DRB	1
		SM 2540C	JPT	1
		EPA 300.0	RLC	3
269556005	YGWC-45	EPA 6020B	CSW	14
		EPA 7470A	DRB	1
		SM 2540C	JPT	1
		EPA 300.0	RLC	3
269556006	YGWC-46	EPA 6020B	CSW	14
		EPA 7470A	DRB	1
		SM 2540C	JPT	1
		EPA 300.0	RLC	3
269556007	YGWC-49	EPA 6020B	CSW	14
		EPA 7470A	DRB	1
		SM 2540C	JPT	1
		EPA 300.0	RLC	3
269556008	EB-1-9-20-18	EPA 6020B	CSW	14
		EPA 7470A	DRB	1
		SM 2540C	JPT	1
		EPA 300.0	RLC	3
269556009	Dup-1	EPA 6020B	CSW	14
		EPA 7470A	DRB	1
		SM 2540C	JPT	1
		EPA 300.0	RLC	3
269556010	FB-1-9-19-18	EPA 6020B	CSW	14

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SAMPLE ANALYTE COUNT

Project: Plant Yates Phase II
Pace Project No.: 269556

Lab ID	Sample ID	Method	Analysts	Analytes Reported
		EPA 7470A	DRB	1
		SM 2540C	JPT	1
		EPA 300.0	RLC	3

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Yates Phase II

Pace Project No.: 269556

Sample: YGWA-47 Lab ID: 269556001 Collected: 09/19/18 10:35 Received: 09/21/18 09:30 Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Antimony	ND	mg/L	0.0030	0.00078	1	09/25/18 15:15	09/26/18 20:32	7440-36-0	
Arsenic	0.00072J	mg/L	0.0050	0.00057	1	09/25/18 15:15	09/26/18 20:32	7440-38-2	B
Barium	0.023	mg/L	0.010	0.00078	1	09/25/18 15:15	09/26/18 20:32	7440-39-3	
Beryllium	0.000057J	mg/L	0.0030	0.000050	1	09/25/18 15:15	09/26/18 20:32	7440-41-7	
Boron	0.012J	mg/L	0.040	0.0039	1	09/25/18 15:15	09/26/18 20:32	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000093	1	09/25/18 15:15	09/26/18 20:32	7440-43-9	
Calcium	11.1J	mg/L	25.0	0.69	50	09/25/18 15:15	09/26/18 20:38	7440-70-2	D3,M6
Chromium	ND	mg/L	0.010	0.0016	1	09/25/18 15:15	09/26/18 20:32	7440-47-3	
Cobalt	0.0036J	mg/L	0.010	0.00052	1	09/25/18 15:15	09/26/18 20:32	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	09/25/18 15:15	09/26/18 20:32	7439-92-1	
Lithium	0.0043J	mg/L	0.050	0.00097	1	09/25/18 15:15	09/26/18 20:32	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	09/25/18 15:15	09/26/18 20:32	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	09/25/18 15:15	09/26/18 20:32	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	09/25/18 15:15	09/26/18 20:32	7440-28-0	
7470 Mercury Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Mercury	0.000053J	mg/L	0.00050	0.000036	1	09/27/18 10:20	09/27/18 18:04	7439-97-6	B
2540C Total Dissolved Solids Analytical Method: SM 2540C									
Total Dissolved Solids	186	mg/L	25.0	10.0	1		09/24/18 13:01		
300.0 IC Anions 28 Days Analytical Method: EPA 300.0									
Chloride	4.0	mg/L	0.25	0.024	1		09/26/18 03:39	16887-00-6	
Fluoride	ND	mg/L	0.30	0.029	1		09/26/18 03:39	16984-48-8	
Sulfate	75.0	mg/L	10.0	0.17	10		09/26/18 13:44	14808-79-8	M1

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ANALYTICAL RESULTS

Project: Plant Yates Phase II

Pace Project No.: 269556

Sample: YGWC-42 Lab ID: 269556002 Collected: 09/20/18 12:30 Received: 09/21/18 09:30 Matrix: Water									
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
6020B MET ICPMS Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Antimony	ND	mg/L	0.0030	0.00078	1	09/25/18 15:15	09/26/18 21:24	7440-36-0	
Arsenic	0.0018J	mg/L	0.0050	0.00057	1	09/25/18 15:15	09/26/18 21:24	7440-38-2	B
Barium	0.038	mg/L	0.010	0.00078	1	09/25/18 15:15	09/26/18 21:24	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	09/25/18 15:15	09/26/18 21:24	7440-41-7	
Boron	20.3	mg/L	2.0	0.20	50	09/25/18 15:15	09/26/18 21:30	7440-42-8	
Cadmium	0.00020J	mg/L	0.0010	0.000093	1	09/25/18 15:15	09/26/18 21:24	7440-43-9	
Calcium	108	mg/L	25.0	0.69	50	09/25/18 15:15	09/26/18 21:30	7440-70-2	
Chromium	ND	mg/L	0.010	0.0016	1	09/25/18 15:15	09/26/18 21:24	7440-47-3	
Cobalt	0.0030J	mg/L	0.010	0.00052	1	09/25/18 15:15	09/26/18 21:24	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	09/25/18 15:15	09/26/18 21:24	7439-92-1	
Lithium	0.049J	mg/L	0.050	0.00097	1	09/25/18 15:15	09/26/18 21:24	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	09/25/18 15:15	09/26/18 21:24	7439-98-7	
Selenium	0.041	mg/L	0.010	0.0014	1	09/25/18 15:15	09/26/18 21:24	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	09/25/18 15:15	09/26/18 21:24	7440-28-0	
7470 Mercury Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Mercury	0.000048J	mg/L	0.00050	0.000036	1	09/27/18 10:20	09/27/18 18:06	7439-97-6	B
2540C Total Dissolved Solids Analytical Method: SM 2540C									
Total Dissolved Solids	1240	mg/L	25.0	10.0	1		09/24/18 13:01		
300.0 IC Anions 28 Days Analytical Method: EPA 300.0									
Chloride	3.8	mg/L	0.25	0.024	1		09/26/18 04:41	16887-00-6	
Fluoride	0.041J	mg/L	0.30	0.029	1		09/26/18 04:41	16984-48-8	
Sulfate	810	mg/L	50.0	0.85	50		09/26/18 14:05	14808-79-8	M1

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ANALYTICAL RESULTS

Project: Plant Yates Phase II
Pace Project No.: 269556

Sample: YGWC-43		Lab ID: 269556003		Collected: 09/20/18 10:55		Received: 09/21/18 09:30		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00078	1	09/25/18 15:15	09/26/18 21:35	7440-36-0		
Arsenic	0.00099J	mg/L	0.0050	0.00057	1	09/25/18 15:15	09/26/18 21:35	7440-38-2	B	
Barium	0.035	mg/L	0.010	0.00078	1	09/25/18 15:15	09/26/18 21:35	7440-39-3		
Beryllium	0.00029J	mg/L	0.0030	0.000050	1	09/25/18 15:15	09/26/18 21:35	7440-41-7		
Boron	2.1	mg/L	0.040	0.0039	1	09/25/18 15:15	09/26/18 21:35	7440-42-8		
Cadmium	ND	mg/L	0.0010	0.000093	1	09/25/18 15:15	09/26/18 21:35	7440-43-9		
Calcium	15.9J	mg/L	25.0	0.69	50	09/25/18 15:15	09/26/18 21:41	7440-70-2	D3	
Chromium	ND	mg/L	0.010	0.0016	1	09/25/18 15:15	09/26/18 21:35	7440-47-3		
Cobalt	0.0034J	mg/L	0.010	0.00052	1	09/25/18 15:15	09/26/18 21:35	7440-48-4		
Lead	ND	mg/L	0.0050	0.00027	1	09/25/18 15:15	09/26/18 21:35	7439-92-1		
Lithium	0.019J	mg/L	0.050	0.00097	1	09/25/18 15:15	09/26/18 21:35	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.0019	1	09/25/18 15:15	09/26/18 21:35	7439-98-7		
Selenium	ND	mg/L	0.010	0.0014	1	09/25/18 15:15	09/26/18 21:35	7782-49-2		
Thallium	ND	mg/L	0.0010	0.00014	1	09/25/18 15:15	09/26/18 21:35	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	0.000052J	mg/L	0.00050	0.000036	1	09/27/18 10:20	09/27/18 18:09	7439-97-6	B	
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	434	mg/L	25.0	10.0	1		09/24/18 13:01			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Chloride	1.9	mg/L	0.25	0.024	1		09/26/18 05:02	16887-00-6		
Fluoride	ND	mg/L	0.30	0.029	1		09/26/18 05:02	16984-48-8		
Sulfate	247	mg/L	10.0	0.17	10		09/26/18 14:26	14808-79-8		

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ANALYTICAL RESULTS

Project: Plant Yates Phase II

Pace Project No.: 269556

Sample: YGWC-44 Lab ID: 269556004 Collected: 09/19/18 13:15 Received: 09/21/18 09:30 Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Antimony	ND	mg/L	0.0030	0.00078	1	09/25/18 15:15	09/26/18 21:47	7440-36-0	
Arsenic	0.00086J	mg/L	0.0050	0.00057	1	09/25/18 15:15	09/26/18 21:47	7440-38-2	B
Barium	0.11	mg/L	0.010	0.00078	1	09/25/18 15:15	09/26/18 21:47	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	09/25/18 15:15	09/26/18 21:47	7440-41-7	
Boron	0.66	mg/L	0.040	0.0039	1	09/25/18 15:15	09/26/18 21:47	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000093	1	09/25/18 15:15	09/26/18 21:47	7440-43-9	
Calcium	29.2	mg/L	25.0	0.69	50	09/25/18 15:15	09/26/18 21:53	7440-70-2	
Chromium	ND	mg/L	0.010	0.0016	1	09/25/18 15:15	09/26/18 21:47	7440-47-3	
Cobalt	0.0025J	mg/L	0.010	0.00052	1	09/25/18 15:15	09/26/18 21:47	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	09/25/18 15:15	09/26/18 21:47	7439-92-1	
Lithium	0.013J	mg/L	0.050	0.00097	1	09/25/18 15:15	09/26/18 21:47	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	09/25/18 15:15	09/26/18 21:47	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	09/25/18 15:15	09/26/18 21:47	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	09/25/18 15:15	09/26/18 21:47	7440-28-0	
7470 Mercury Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Mercury	0.000060J	mg/L	0.00050	0.000036	1	09/27/18 10:20	09/27/18 18:11	7439-97-6	B
2540C Total Dissolved Solids Analytical Method: SM 2540C									
Total Dissolved Solids	326	mg/L	25.0	10.0	1		09/24/18 13:01		
300.0 IC Anions 28 Days Analytical Method: EPA 300.0									
Chloride	14.2	mg/L	0.25	0.024	1		09/26/18 05:22	16887-00-6	
Fluoride	ND	mg/L	0.30	0.029	1		09/26/18 05:22	16984-48-8	
Sulfate	137	mg/L	10.0	0.17	10		09/26/18 14:48	14808-79-8	

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ANALYTICAL RESULTS

Project: Plant Yates Phase II

Pace Project No.: 269556

Sample: YGWC-45 Lab ID: 269556005 Collected: 09/19/18 14:50 Received: 09/21/18 09:30 Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Antimony	ND	mg/L	0.0030	0.00078	1	09/25/18 15:15	09/26/18 21:58	7440-36-0	
Arsenic	0.00072J	mg/L	0.0050	0.00057	1	09/25/18 15:15	09/26/18 21:58	7440-38-2	B
Barium	0.064	mg/L	0.010	0.00078	1	09/25/18 15:15	09/26/18 21:58	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	09/25/18 15:15	09/26/18 21:58	7440-41-7	
Boron	0.35	mg/L	0.040	0.0039	1	09/25/18 15:15	09/26/18 21:58	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000093	1	09/25/18 15:15	09/26/18 21:58	7440-43-9	
Calcium	50.5	mg/L	25.0	0.69	50	09/25/18 15:15	09/26/18 22:04	7440-70-2	
Chromium	ND	mg/L	0.010	0.0016	1	09/25/18 15:15	09/26/18 21:58	7440-47-3	
Cobalt	0.00081J	mg/L	0.010	0.00052	1	09/25/18 15:15	09/26/18 21:58	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	09/25/18 15:15	09/26/18 21:58	7439-92-1	
Lithium	0.012J	mg/L	0.050	0.00097	1	09/25/18 15:15	09/26/18 21:58	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	09/25/18 15:15	09/26/18 21:58	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	09/25/18 15:15	09/26/18 21:58	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	09/25/18 15:15	09/26/18 21:58	7440-28-0	
7470 Mercury Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Mercury	0.000071J	mg/L	0.00050	0.000036	1	09/27/18 10:20	09/27/18 18:13	7439-97-6	B
2540C Total Dissolved Solids Analytical Method: SM 2540C									
Total Dissolved Solids	413	mg/L	25.0	10.0	1		09/24/18 13:02		
300.0 IC Anions 28 Days Analytical Method: EPA 300.0									
Chloride	4.7	mg/L	0.25	0.024	1		09/26/18 05:43	16887-00-6	
Fluoride	ND	mg/L	0.30	0.029	1		09/26/18 05:43	16984-48-8	
Sulfate	192	mg/L	10.0	0.17	10		09/26/18 15:09	14808-79-8	

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ANALYTICAL RESULTS

Project: Plant Yates Phase II
Pace Project No.: 269556

Sample: YGWC-46		Lab ID: 269556006		Collected: 09/19/18 12:00		Received: 09/21/18 09:30		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Antimony	ND	mg/L	0.0030	0.00078	1	09/25/18 15:15	09/26/18 22:10	7440-36-0	
Arsenic	0.0012J	mg/L	0.0050	0.00057	1	09/25/18 15:15	09/26/18 22:10	7440-38-2	B
Barium	0.030	mg/L	0.010	0.00078	1	09/25/18 15:15	09/26/18 22:10	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	09/25/18 15:15	09/26/18 22:10	7440-41-7	
Boron	1.2	mg/L	0.040	0.0039	1	09/25/18 15:15	09/26/18 22:10	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000093	1	09/25/18 15:15	09/26/18 22:10	7440-43-9	
Calcium	51.9	mg/L	25.0	0.69	50	09/25/18 15:15	09/26/18 22:15	7440-70-2	
Chromium	ND	mg/L	0.010	0.0016	1	09/25/18 15:15	09/26/18 22:10	7440-47-3	
Cobalt	0.042	mg/L	0.010	0.00052	1	09/25/18 15:15	09/26/18 22:10	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	09/25/18 15:15	09/26/18 22:10	7439-92-1	
Lithium	0.011J	mg/L	0.050	0.00097	1	09/25/18 15:15	09/26/18 22:10	7439-93-2	
Molybdenum	0.0039J	mg/L	0.010	0.0019	1	09/25/18 15:15	09/26/18 22:10	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	09/25/18 15:15	09/26/18 22:10	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	09/25/18 15:15	09/26/18 22:10	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	0.000070J	mg/L	0.00050	0.000036	1	09/27/18 10:20	09/27/18 18:16	7439-97-6	B
2540C Total Dissolved Solids		Analytical Method: SM 2540C							
Total Dissolved Solids	702	mg/L	25.0	10.0	1		09/24/18 13:02		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Chloride	26.5	mg/L	0.25	0.024	1		09/26/18 06:03	16887-00-6	
Fluoride	ND	mg/L	0.30	0.029	1		09/26/18 06:03	16984-48-8	
Sulfate	395	mg/L	20.0	0.34	20		09/26/18 15:30	14808-79-8	

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ANALYTICAL RESULTS

Project: Plant Yates Phase II
Pace Project No.: 269556

Sample: YGWC-49		Lab ID: 269556007		Collected: 09/20/18 13:55		Received: 09/21/18 09:30		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Antimony	ND	mg/L	0.0030	0.00078	1	09/25/18 15:15	09/26/18 22:33	7440-36-0	
Arsenic	0.0010J	mg/L	0.0050	0.00057	1	09/25/18 15:15	09/26/18 22:33	7440-38-2	B
Barium	0.074	mg/L	0.010	0.00078	1	09/25/18 15:15	09/26/18 22:33	7440-39-3	
Beryllium	0.00011J	mg/L	0.0030	0.000050	1	09/25/18 15:15	09/26/18 22:33	7440-41-7	
Boron	0.0042J	mg/L	0.040	0.0039	1	09/25/18 15:15	09/26/18 22:33	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000093	1	09/25/18 15:15	09/26/18 22:33	7440-43-9	
Calcium	12.0J	mg/L	25.0	0.69	50	09/25/18 15:15	09/26/18 22:38	7440-70-2	D3
Chromium	0.0017J	mg/L	0.010	0.0016	1	09/25/18 15:15	09/26/18 22:33	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	09/25/18 15:15	09/26/18 22:33	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	09/25/18 15:15	09/26/18 22:33	7439-92-1	
Lithium	0.0036J	mg/L	0.050	0.00097	1	09/25/18 15:15	09/26/18 22:33	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	09/25/18 15:15	09/26/18 22:33	7439-98-7	
Selenium	0.0081J	mg/L	0.010	0.0014	1	09/25/18 15:15	09/26/18 22:33	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	09/25/18 15:15	09/26/18 22:33	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	0.000061J	mg/L	0.00050	0.000036	1	09/27/18 10:20	09/27/18 18:18	7439-97-6	B
2540C Total Dissolved Solids		Analytical Method: SM 2540C							
Total Dissolved Solids	186	mg/L	25.0	10.0	1		09/24/18 13:02		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Chloride	4.8	mg/L	0.25	0.024	1		09/26/18 06:24	16887-00-6	
Fluoride	ND	mg/L	0.30	0.029	1		09/26/18 06:24	16984-48-8	
Sulfate	84.1	mg/L	10.0	0.17	10		09/26/18 17:16	14808-79-8	

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ANALYTICAL RESULTS

Project: Plant Yates Phase II

Pace Project No.: 269556

Sample: EB-1-9-20-18 Lab ID: 269556008 Collected: 09/20/18 09:55 Received: 09/21/18 09:30 Matrix: Water									
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
6020B MET ICPMS Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Antimony	ND	mg/L	0.0030	0.00078	1	09/25/18 15:15	09/26/18 22:44	7440-36-0	
Arsenic	0.00093J	mg/L	0.0050	0.00057	1	09/25/18 15:15	09/26/18 22:44	7440-38-2	B
Barium	ND	mg/L	0.010	0.00078	1	09/25/18 15:15	09/26/18 22:44	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	09/25/18 15:15	09/26/18 22:44	7440-41-7	
Boron	ND	mg/L	0.040	0.0039	1	09/25/18 15:15	09/26/18 22:44	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000093	1	09/25/18 15:15	09/26/18 22:44	7440-43-9	
Calcium	ND	mg/L	0.50	0.014	1	09/25/18 15:15	09/26/18 22:44	7440-70-2	
Chromium	ND	mg/L	0.010	0.0016	1	09/25/18 15:15	09/26/18 22:44	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	09/25/18 15:15	09/26/18 22:44	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	09/25/18 15:15	09/26/18 22:44	7439-92-1	
Lithium	ND	mg/L	0.050	0.00097	1	09/25/18 15:15	09/26/18 22:44	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	09/25/18 15:15	09/26/18 22:44	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	09/25/18 15:15	09/26/18 22:44	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	09/25/18 15:15	09/26/18 22:44	7440-28-0	
7470 Mercury Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Mercury	0.000056J	mg/L	0.00050	0.000036	1	09/27/18 10:20	09/27/18 18:20	7439-97-6	B
2540C Total Dissolved Solids Analytical Method: SM 2540C									
Total Dissolved Solids	ND	mg/L	25.0	10.0	1		09/24/18 13:02		
300.0 IC Anions 28 Days Analytical Method: EPA 300.0									
Chloride	0.064J	mg/L	0.25	0.024	1		09/26/18 06:45	16887-00-6	B
Fluoride	ND	mg/L	0.30	0.029	1		09/26/18 06:45	16984-48-8	
Sulfate	ND	mg/L	1.0	0.017	1		09/26/18 06:45	14808-79-8	

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ANALYTICAL RESULTS

Project: Plant Yates Phase II
Pace Project No.: 269556

Sample: Dup-1		Lab ID: 269556009		Collected: 09/20/18 00:00		Received: 09/21/18 09:30		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00078	1	09/25/18 15:15	09/26/18 22:50	7440-36-0		
Arsenic	0.0011J	mg/L	0.0050	0.00057	1	09/25/18 15:15	09/26/18 22:50	7440-38-2	B	
Barium	0.074	mg/L	0.010	0.00078	1	09/25/18 15:15	09/26/18 22:50	7440-39-3		
Beryllium	0.00012J	mg/L	0.0030	0.000050	1	09/25/18 15:15	09/26/18 22:50	7440-41-7		
Boron	ND	mg/L	0.040	0.0039	1	09/25/18 15:15	09/26/18 22:50	7440-42-8		
Cadmium	ND	mg/L	0.0010	0.000093	1	09/25/18 15:15	09/26/18 22:50	7440-43-9		
Calcium	12.3J	mg/L	25.0	0.69	50	09/25/18 15:15	09/26/18 22:56	7440-70-2	D3	
Chromium	0.0017J	mg/L	0.010	0.0016	1	09/25/18 15:15	09/26/18 22:50	7440-47-3		
Cobalt	ND	mg/L	0.010	0.00052	1	09/25/18 15:15	09/26/18 22:50	7440-48-4		
Lead	ND	mg/L	0.0050	0.00027	1	09/25/18 15:15	09/26/18 22:50	7439-92-1		
Lithium	0.0038J	mg/L	0.050	0.00097	1	09/25/18 15:15	09/26/18 22:50	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.0019	1	09/25/18 15:15	09/26/18 22:50	7439-98-7		
Selenium	0.0073J	mg/L	0.010	0.0014	1	09/25/18 15:15	09/26/18 22:50	7782-49-2		
Thallium	ND	mg/L	0.0010	0.00014	1	09/25/18 15:15	09/26/18 22:50	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	0.000054J	mg/L	0.00050	0.000036	1	09/27/18 10:20	09/27/18 18:23	7439-97-6	B	
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	182	mg/L	25.0	10.0	1		09/24/18 13:11			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Chloride	4.6	mg/L	0.25	0.024	1		09/26/18 08:28	16887-00-6		
Fluoride	ND	mg/L	0.30	0.029	1		09/26/18 08:28	16984-48-8		
Sulfate	76.8	mg/L	50.0	0.85	50		09/26/18 17:37	14808-79-8		

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ANALYTICAL RESULTS

Project: Plant Yates Phase II

Pace Project No.: 269556

Sample: FB-1-9-19-18 Lab ID: 269556010 Collected: 09/19/18 14:20 Received: 09/21/18 09:30 Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Antimony	ND	mg/L	0.0030	0.00078	1	09/25/18 15:15	09/26/18 23:01	7440-36-0	
Arsenic	0.00090J	mg/L	0.0050	0.00057	1	09/25/18 15:15	09/26/18 23:01	7440-38-2	B
Barium	ND	mg/L	0.010	0.00078	1	09/25/18 15:15	09/26/18 23:01	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	09/25/18 15:15	09/26/18 23:01	7440-41-7	
Boron	ND	mg/L	0.040	0.0039	1	09/25/18 15:15	09/26/18 23:01	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000093	1	09/25/18 15:15	09/26/18 23:01	7440-43-9	
Calcium	ND	mg/L	0.50	0.014	1	09/25/18 15:15	09/26/18 23:01	7440-70-2	
Chromium	ND	mg/L	0.010	0.0016	1	09/25/18 15:15	09/26/18 23:01	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	09/25/18 15:15	09/26/18 23:01	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	09/25/18 15:15	09/26/18 23:01	7439-92-1	
Lithium	ND	mg/L	0.050	0.00097	1	09/25/18 15:15	09/26/18 23:01	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	09/25/18 15:15	09/26/18 23:01	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	09/25/18 15:15	09/26/18 23:01	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	09/25/18 15:15	09/26/18 23:01	7440-28-0	
7470 Mercury Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Mercury	0.000059J	mg/L	0.00050	0.000036	1	09/27/18 10:20	09/27/18 18:25	7439-97-6	B
2540C Total Dissolved Solids Analytical Method: SM 2540C									
Total Dissolved Solids	12.0J	mg/L	25.0	10.0	1		09/24/18 13:02		
300.0 IC Anions 28 Days Analytical Method: EPA 300.0									
Chloride	0.062J	mg/L	0.25	0.024	1		09/26/18 08:49	16887-00-6	B
Fluoride	ND	mg/L	0.30	0.029	1		09/26/18 08:49	16984-48-8	
Sulfate	ND	mg/L	1.0	0.017	1		09/26/18 08:49	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Yates Phase II
Pace Project No.: 269556

QC Batch: 14279 Analysis Method: EPA 7470A
QC Batch Method: EPA 7470A Analysis Description: 7470 Mercury
Associated Lab Samples: 269556001, 269556002, 269556003, 269556004, 269556005, 269556006, 269556007, 269556008, 269556009, 269556010

METHOD BLANK: 63605 Matrix: Water
Associated Lab Samples: 269556001, 269556002, 269556003, 269556004, 269556005, 269556006, 269556007, 269556008, 269556009, 269556010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	0.000076J	0.00050	0.000036	09/27/18 17:19	

LABORATORY CONTROL SAMPLE: 63606

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	.0025	0.0025	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 63607 63608

Parameter	Units	269182001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	mg/L	ND	.0025	.0025	0.0021	0.0020	80	76	75-125	4	20	

SAMPLE DUPLICATE: 63664

Parameter	Units	269182006 Result	Dup Result	RPD	Max RPD	Qualifiers
Mercury	mg/L	ND	0.000047J		20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Yates Phase II
Pace Project No.: 269556

QC Batch: 14164 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020B MET
Associated Lab Samples: 269556001, 269556002, 269556003, 269556004, 269556005, 269556006, 269556007, 269556008, 269556009, 269556010

METHOD BLANK: 63037 Matrix: Water
Associated Lab Samples: 269556001, 269556002, 269556003, 269556004, 269556005, 269556006, 269556007, 269556008, 269556009, 269556010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00078	09/26/18 20:21	
Arsenic	mg/L	0.00070J	0.0050	0.00057	09/26/18 20:21	
Barium	mg/L	ND	0.010	0.00078	09/26/18 20:21	
Beryllium	mg/L	ND	0.0030	0.000050	09/26/18 20:21	
Boron	mg/L	ND	0.040	0.0039	09/26/18 20:21	
Cadmium	mg/L	ND	0.0010	0.000093	09/26/18 20:21	
Calcium	mg/L	ND	0.50	0.014	09/26/18 20:21	
Chromium	mg/L	ND	0.010	0.0016	09/26/18 20:21	
Cobalt	mg/L	ND	0.010	0.00052	09/26/18 20:21	
Lead	mg/L	ND	0.0050	0.00027	09/26/18 20:21	
Lithium	mg/L	ND	0.050	0.00097	09/26/18 20:21	
Molybdenum	mg/L	ND	0.010	0.0019	09/26/18 20:21	
Selenium	mg/L	ND	0.010	0.0014	09/26/18 20:21	
Thallium	mg/L	ND	0.0010	0.00014	09/26/18 20:21	

LABORATORY CONTROL SAMPLE: 63038

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	.1	0.11	108	80-120	
Arsenic	mg/L	.1	0.11	106	80-120	
Barium	mg/L	.1	0.10	105	80-120	
Beryllium	mg/L	.1	0.11	108	80-120	
Boron	mg/L	1	1.1	111	80-120	
Cadmium	mg/L	.1	0.11	106	80-120	
Calcium	mg/L	1	1.0	102	80-120	
Chromium	mg/L	.1	0.11	109	80-120	
Cobalt	mg/L	.1	0.11	106	80-120	
Lead	mg/L	.1	0.10	104	80-120	
Lithium	mg/L	.1	0.11	109	80-120	
Molybdenum	mg/L	.1	0.11	107	80-120	
Selenium	mg/L	.1	0.10	104	80-120	
Thallium	mg/L	.1	0.11	106	80-120	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Yates Phase II

Pace Project No.: 269556

Parameter	Units	63039		63040		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result								
Antimony	mg/L	ND	.1	.1	0.11	0.11	106	106	75-125	0	20		
Arsenic	mg/L	0.00072J	.1	.1	0.10	0.10	101	101	75-125	0	20		
Barium	mg/L	0.023	.1	.1	0.12	0.12	100	98	75-125	1	20		
Beryllium	mg/L	0.000057J	.1	.1	0.10	0.10	102	102	75-125	1	20		
Boron	mg/L	0.012J	1	1	1.0	1.0	103	101	75-125	2	20		
Cadmium	mg/L	ND	.1	.1	0.10	0.11	102	106	75-125	4	20		
Calcium	mg/L	11.1J	1	1	11.6J	11.7J	53	60	75-125	1	20	M6	
Chromium	mg/L	ND	.1	.1	0.11	0.10	110	103	75-125	7	20		
Cobalt	mg/L	0.0036J	.1	.1	0.11	0.10	106	100	75-125	6	20		
Lead	mg/L	ND	.1	.1	0.10	0.10	102	104	75-125	2	20		
Lithium	mg/L	0.0043J	.1	.1	0.11	0.10	103	99	75-125	3	20		
Molybdenum	mg/L	ND	.1	.1	0.11	0.10	106	104	75-125	1	20		
Selenium	mg/L	ND	.1	.1	0.10	0.10	102	102	75-125	1	20		
Thallium	mg/L	ND	.1	.1	0.10	0.10	103	103	75-125	0	20		

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Yates Phase II
Pace Project No.: 269556

QC Batch: 14064 Analysis Method: SM 2540C
QC Batch Method: SM 2540C Analysis Description: 2540C Total Dissolved Solids
Associated Lab Samples: 269556001, 269556002, 269556003, 269556004, 269556005, 269556006, 269556007, 269556008, 269556010

LABORATORY CONTROL SAMPLE: 62639

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	401	100	84-108	

SAMPLE DUPLICATE: 62640

Parameter	Units	269556001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	186	178	4	10	

SAMPLE DUPLICATE: 62641

Parameter	Units	269555003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	129	125	3	10	

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QUALITY CONTROL DATA

Project: Plant Yates Phase II

Pace Project No.: 269556

QC Batch: 14076	Analysis Method: SM 2540C
QC Batch Method: SM 2540C	Analysis Description: 2540C Total Dissolved Solids
Associated Lab Samples: 269556009	

LABORATORY CONTROL SAMPLE: 62675

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	400	100	84-108	

SAMPLE DUPLICATE: 62676

Parameter	Units	269581001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	227	227	0	10	

SAMPLE DUPLICATE: 62677

Parameter	Units	269581010 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	139	139	0	10	

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QUALITY CONTROL DATA

Project: Plant Yates Phase II

Pace Project No.: 269556

QC Batch: 14110 Analysis Method: EPA 300.0
 QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
 Associated Lab Samples: 269556001, 269556002, 269556003, 269556004, 269556005, 269556006, 269556007, 269556008, 269556009, 269556010

METHOD BLANK: 62772 Matrix: Water
 Associated Lab Samples: 269556001, 269556002, 269556003, 269556004, 269556005, 269556006, 269556007, 269556008, 269556009, 269556010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	0.057J	0.25	0.024	09/26/18 02:58	
Fluoride	mg/L	ND	0.30	0.029	09/26/18 02:58	
Sulfate	mg/L	ND	1.0	0.017	09/26/18 02:58	

LABORATORY CONTROL SAMPLE: 62773

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	10	10.3	103	90-110	
Fluoride	mg/L	10	10.1	101	90-110	
Sulfate	mg/L	10	10.0	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 62774 62775

Parameter	Units	269556001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	4.0	10	10	13.8	13.8	97	98	90-110	0	15	
Fluoride	mg/L	ND	10	10	9.8	9.9	98	99	90-110	0	15	
Sulfate	mg/L	75.0	10	10	73.7	73.6	-13	-15	90-110	0	15	E,M1

MATRIX SPIKE SAMPLE: 62776

Parameter	Units	269556002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	3.8	10	13.3	95	90-110	
Fluoride	mg/L	0.041J	10	10.3	102	90-110	
Sulfate	mg/L	810	10	345	-4660	90-110	E,M1

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REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: Plant Yates Phase II

Pace Project No.: 269556

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

B Analyte was detected in the associated method blank.

D3 Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

E Analyte concentration exceeded the calibration range. The reported result is estimated.

M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

M6 Matrix spike and Matrix spike duplicate recovery not evaluated against control limits due to sample dilution.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Yates Phase II
Pace Project No.: 269556

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
269556001	YGWA-47	EPA 3005A	14164	EPA 6020B	14198
269556002	YGWC-42	EPA 3005A	14164	EPA 6020B	14198
269556003	YGWC-43	EPA 3005A	14164	EPA 6020B	14198
269556004	YGWC-44	EPA 3005A	14164	EPA 6020B	14198
269556005	YGWC-45	EPA 3005A	14164	EPA 6020B	14198
269556006	YGWC-46	EPA 3005A	14164	EPA 6020B	14198
269556007	YGWC-49	EPA 3005A	14164	EPA 6020B	14198
269556008	EB-1-9-20-18	EPA 3005A	14164	EPA 6020B	14198
269556009	Dup-1	EPA 3005A	14164	EPA 6020B	14198
269556010	FB-1-9-19-18	EPA 3005A	14164	EPA 6020B	14198
269556001	YGWA-47	EPA 7470A	14279	EPA 7470A	14340
269556002	YGWC-42	EPA 7470A	14279	EPA 7470A	14340
269556003	YGWC-43	EPA 7470A	14279	EPA 7470A	14340
269556004	YGWC-44	EPA 7470A	14279	EPA 7470A	14340
269556005	YGWC-45	EPA 7470A	14279	EPA 7470A	14340
269556006	YGWC-46	EPA 7470A	14279	EPA 7470A	14340
269556007	YGWC-49	EPA 7470A	14279	EPA 7470A	14340
269556008	EB-1-9-20-18	EPA 7470A	14279	EPA 7470A	14340
269556009	Dup-1	EPA 7470A	14279	EPA 7470A	14340
269556010	FB-1-9-19-18	EPA 7470A	14279	EPA 7470A	14340
269556001	YGWA-47	SM 2540C	14064		
269556002	YGWC-42	SM 2540C	14064		
269556003	YGWC-43	SM 2540C	14064		
269556004	YGWC-44	SM 2540C	14064		
269556005	YGWC-45	SM 2540C	14064		
269556006	YGWC-46	SM 2540C	14064		
269556007	YGWC-49	SM 2540C	14064		
269556008	EB-1-9-20-18	SM 2540C	14064		
269556009	Dup-1	SM 2540C	14076		
269556010	FB-1-9-19-18	SM 2540C	14064		
269556001	YGWA-47	EPA 300.0	14110		
269556002	YGWC-42	EPA 300.0	14110		
269556003	YGWC-43	EPA 300.0	14110		
269556004	YGWC-44	EPA 300.0	14110		
269556005	YGWC-45	EPA 300.0	14110		
269556006	YGWC-46	EPA 300.0	14110		
269556007	YGWC-49	EPA 300.0	14110		
269556008	EB-1-9-20-18	EPA 300.0	14110		
269556009	Dup-1	EPA 300.0	14110		
269556010	FB-1-9-19-18	EPA 300.0	14110		

REPORT OF LABORATORY ANALYSIS

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CHAIN OF CUSTODY RECORD

Pace Analytical Services, Inc.
 110 TECHNOLOGY PARKWAY, PEACHTREE CORNERS, GA 30092
 (770) 734-4200 : FAX (770) 734-4201 : www.asi-lab.com

PAGE: 1 OF 1

CLIENT NAME: Georgia Power CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER: 241 Ralph McGill Blvd SE B10185 Atlanta, GA 30308 404-506-7239		REPORT TO: Joju Abraham CC: Maria Padilla Heath McCorkle PO #: laburch@southernco.com		PROJECT NAME/STATE: Plant Yates - Phase 2 Facility Wells Phase 2 CCR	
Collection DATE	Collection TIME	MATRIX CODE*	C O R M A P	SAMPLE IDENTIFICATION	ANALYSIS REQUESTED
9-19-18	1035	GW	✓	Y6WA-47	4
9-20-18	1230	GW	✓	Y6WC-42	4
9-20-18	1055	GW	✓	Y6WC-43	6
9-19-18	1315	GW	✓	Y6WC-44	4
9-19-18	1450	GW	✓	Y6WC-45	4
9-19-18	1200	GW	✓	Y6WC-46	4
9-20-18	1355	GW	✓	Y6WC-49	4
9-20-18	0955	W	✓	EB-1-9-20-18	4
9-20-18	—	BW	✓	DUP-1	4
9-19-18	1420	W	✓	FB-1-9-19-18	4
SAMPLED BY AND TITLE: RECEIVED BY:		DATE/TIME: 9-20-18 / 1800	RELINQUISHED BY: DATE/TIME: 9-20-18 / 1800	ANALYSIS REQUESTED CONTAINER TYPE: P 3 PRESERVATION: 3 # of CONTAINERS: 4 Metals App. III & IV (EPA 6020/7470) Cl, Ti, SO ₄ & TDS (EPA 300.0 & SM 2540C) Radium 226 & 228 (SW-845 9315/9320)	
RECEIVED BY LAB:		DATE/TIME: 9-20-18 / 1800	RELINQUISHED BY:	ANALYSIS REQUESTED CONTAINER TYPE: P 3 PRESERVATION: 3 # of CONTAINERS: 4 Metals App. III & IV (EPA 6020/7470) Cl, Ti, SO ₄ & TDS (EPA 300.0 & SM 2540C) Radium 226 & 228 (SW-845 9315/9320)	
RECEIVED BY LAB:		DATE/TIME: 9-20-18 / 1800	RELINQUISHED BY:	ANALYSIS REQUESTED CONTAINER TYPE: P 3 PRESERVATION: 3 # of CONTAINERS: 4 Metals App. III & IV (EPA 6020/7470) Cl, Ti, SO ₄ & TDS (EPA 300.0 & SM 2540C) Radium 226 & 228 (SW-845 9315/9320)	

WO#: 269556

 269556

CONTAINER TYPE	PRESERVATION
P - PLASTIC	1 - HCl, ≤6°C
A - AMBER GLASS	2 - H ₂ SO ₄ , ≤6°C
G - CLEAR GLASS	3 - HNO ₃
V - VOA VIAL	4 - NaOH, ≤6°C
S - STERILE	5 - NaOH/IZnAc, ≤6°C
O - OTHER	6 - Na ₂ S ₂ O ₃ , ≤6°C
	7 - ≤6°C not frozen

CONTAINER TYPE	PRESERVATION	P	P	P	P	P	REMARKS/ADDITIONAL INFORMATION
L A B I D N U M B E R		3	7	3			
							Extra Rad here



Sample Condition Upon Receipt

Client Name: GIA Power

Project # _____

WO#: 269556

PM: **BM**

Due Date: **09/28/18**

CLIENT: **GAPower-CCR**

Courier: Fed Ex UPS USPS Client Commercial Pace Other

Tracking #: _____

Custody Seal on Cooler/Box Present: yes no Seals intact: yes no

Packing Material: Bubble Wrap Bubble Bags None Other

Thermometer Used 83

Type of Ice: Wet Blue None

Samples on ice, cooling process has begun

Cooler Temperature 5.4

Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: 9/21/18 MK

Temp should be above freezing to 6°C

Comments:

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.		
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.		
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.		
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.		
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.		
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.		
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.		
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.		
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.		
-Pace Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A			
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.		
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.		
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.		
-Includes date/time/ID/Analysis Matrix: <u>GIA</u>				
All containers needing preservation have been checked.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	13.		
All containers needing preservation are found to be in compliance with EPA recommendation.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A			
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Initial when completed	Lot # of added preservative	
Samples checked for dechlorination:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.		
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.		
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	16.		
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A			
Pace Trip Blank Lot # (if purchased): _____				

Client Notification/ Resolution:

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Field Data Required? Y / N

Project Manager Review: _____ **Date:** _____

October 19, 2018

Joju Abraham
Georgia Power - Coal Combustion Residuals
2480 Maner Road
Atlanta, GA 30339

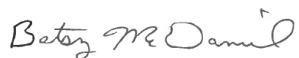
RE: Project: Plant Yates Phase II
Pace Project No.: 269557

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on September 21, 2018. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Betsy McDaniel
betsy.mcdaniel@pacelabs.com
(770)734-4200
Project Manager

Enclosures

cc: Maria Padilla, Georgia Power
Chris Parker, Atlantic Coast Consulting
Evan Perry, Atlantic Coast Consulting
Lauren Petty, Southern Company Services, Inc.
Rebecca Thornton, Pace Analytical Atlanta



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: Plant Yates Phase II
Pace Project No.: 269557

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
Delaware Certification
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA180012
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: 2017020
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991

Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572018-1
New Hampshire/TNI Certification #: 297617
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-010
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: 02867
Texas/TNI Certification #: T104704188-17-3
Utah/TNI Certification #: PA014572017-9
USDA Soil Permit #: P330-17-00091
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 9526
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad
Wyoming Certification #: 8TMS-L

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: Plant Yates Phase II

Pace Project No.: 269557

Lab ID	Sample ID	Matrix	Date Collected	Date Received
269557001	YGWA-47	Water	09/19/18 10:35	09/21/18 09:30
269557002	YGWC-42	Water	09/20/18 12:30	09/21/18 09:30
269557003	YGWC-43	Water	09/20/18 10:55	09/21/18 09:30
269557004	YGWC-44	Water	09/19/18 13:15	09/21/18 09:30
269557005	YGWC-45	Water	09/19/18 14:50	09/21/18 09:30
269557006	YGWC-46	Water	09/19/18 12:00	09/21/18 09:30
269557007	YGWC-49	Water	09/20/18 13:55	09/21/18 09:30
269557008	EB-1-9-20-18	Water	09/20/18 09:55	09/21/18 09:30
269557009	Dup-1	Water	09/20/18 00:00	09/21/18 09:30
269557010	FB-1-9-19-18	Water	09/19/18 14:20	09/21/18 09:30

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SAMPLE ANALYTE COUNT

Project: Plant Yates Phase II
Pace Project No.: 269557

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
269557001	YGWA-47	EPA 9315	JJY	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
269557002	YGWC-42	EPA 9315	JJY	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
269557003	YGWC-43	EPA 9315	JJY	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
269557004	YGWC-44	EPA 9315	JJY	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
269557005	YGWC-45	EPA 9315	JJY	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
269557006	YGWC-46	EPA 9315	JJY	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
269557007	YGWC-49	EPA 9315	JJY	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
269557008	EB-1-9-20-18	EPA 9315	JJY	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
269557009	Dup-1	EPA 9315	JJY	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
269557010	FB-1-9-19-18	EPA 9315	JJY	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Phase II

Pace Project No.: 269557

Sample: YGWA-47 **Lab ID: 269557001** Collected: 09/19/18 10:35 Received: 09/21/18 09:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.343 ± 0.188 (0.282) C:96% T:NA	pCi/L	10/01/18 09:24	13982-63-3	
Radium-228	EPA 9320	0.446 ± 0.520 (1.10) C:72% T:71%	pCi/L	10/09/18 16:39	15262-20-1	
Total Radium	Total Radium Calculation	0.789 ± 0.708 (1.38)	pCi/L	10/12/18 14:44	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Phase II

Pace Project No.: 269557

Sample: YGWC-42 **Lab ID: 269557002** Collected: 09/20/18 12:30 Received: 09/21/18 09:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.918 ± 0.297 (0.264) C:94% T:NA	pCi/L	10/01/18 09:24	13982-63-3	
Radium-228	EPA 9320	1.02 ± 0.546 (0.986) C:70% T:82%	pCi/L	10/09/18 16:39	15262-20-1	
Total Radium	Total Radium Calculation	1.94 ± 0.843 (1.25)	pCi/L	10/12/18 14:44	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Phase II

Pace Project No.: 269557

Sample: YGWC-43 **Lab ID: 269557003** Collected: 09/20/18 10:55 Received: 09/21/18 09:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	2.35 ± 0.550 (0.352) C:93% T:NA	pCi/L	10/01/18 09:24	13982-63-3	
Radium-228	EPA 9320	0.454 ± 0.447 (0.924) C:77% T:81%	pCi/L	10/09/18 16:39	15262-20-1	
Total Radium	Total Radium Calculation	2.80 ± 0.997 (1.28)	pCi/L	10/12/18 14:44	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Phase II

Pace Project No.: 269557

Sample: YGWC-44 **Lab ID: 269557004** Collected: 09/19/18 13:15 Received: 09/21/18 09:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.180 ± 0.168 (0.329) C:97% T:NA	pCi/L	10/01/18 09:24	13982-63-3	
Radium-228	EPA 9320	0.206 ± 0.423 (0.932) C:76% T:81%	pCi/L	10/09/18 16:39	15262-20-1	
Total Radium	Total Radium Calculation	0.386 ± 0.591 (1.26)	pCi/L	10/12/18 14:44	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Phase II

Pace Project No.: 269557

Sample: YGWC-45 **Lab ID: 269557005** Collected: 09/19/18 14:50 Received: 09/21/18 09:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.822 ± 0.208 (0.147) C:99% T:NA	pCi/L	10/01/18 11:05	13982-63-3	
Radium-228	EPA 9320	0.0174 ± 0.479 (1.10) C:72% T:79%	pCi/L	10/09/18 16:39	15262-20-1	
Total Radium	Total Radium Calculation	0.839 ± 0.687 (1.25)	pCi/L	10/12/18 14:44	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Phase II

Pace Project No.: 269557

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.441 ± 0.147 (0.154) C:95% T:NA	pCi/L	10/01/18 12:48	13982-63-3	
Radium-228	EPA 9320	0.706 ± 0.601 (1.23) C:70% T:84%	pCi/L	10/09/18 16:40	15262-20-1	
Total Radium	Total Radium Calculation	1.15 ± 0.748 (1.38)	pCi/L	10/12/18 14:44	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Phase II

Pace Project No.: 269557

Sample: YGWC-49 **Lab ID: 269557007** Collected: 09/20/18 13:55 Received: 09/21/18 09:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.339 ± 0.125 (0.128) C:98% T:NA	pCi/L	10/01/18 12:48	13982-63-3	
Radium-228	EPA 9320	0.797 ± 0.585 (1.16) C:78% T:69%	pCi/L	10/09/18 16:40	15262-20-1	
Total Radium	Total Radium Calculation	1.14 ± 0.710 (1.29)	pCi/L	10/12/18 14:44	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Phase II

Pace Project No.: 269557

Sample: EB-1-9-20-18 **Lab ID: 269557008** Collected: 09/20/18 09:55 Received: 09/21/18 09:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.179 ± 0.104 (0.169) C:89% T:NA	pCi/L	10/01/18 12:48	13982-63-3	
Radium-228	EPA 9320	0.113 ± 0.556 (1.25) C:77% T:79%	pCi/L	10/09/18 16:40	15262-20-1	
Total Radium	Total Radium Calculation	0.292 ± 0.660 (1.42)	pCi/L	10/12/18 14:44	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Phase II

Pace Project No.: 269557

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.250 ± 0.113 (0.153) C:94% T:NA	pCi/L	10/01/18 15:56	13982-63-3	
Radium-228	EPA 9320	0.807 ± 0.630 (1.27) C:75% T:72%	pCi/L	10/09/18 16:40	15262-20-1	
Total Radium	Total Radium Calculation	1.06 ± 0.743 (1.42)	pCi/L	10/12/18 14:44	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Phase II

Pace Project No.: 269557

Sample: FB-1-9-19-18 **Lab ID: 269557010** Collected: 09/19/18 14:20 Received: 09/21/18 09:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.112 ± 0.0765 (0.123) C:99% T:NA	pCi/L	10/01/18 15:56	13982-63-3	
Radium-228	EPA 9320	0.234 ± 0.629 (1.40) C:74% T:74%	pCi/L	10/09/18 16:40	15262-20-1	
Total Radium	Total Radium Calculation	0.346 ± 0.706 (1.52)	pCi/L	10/12/18 14:44	7440-14-4	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Yates Phase II

Pace Project No.: 269557

QC Batch:	314442	Analysis Method:	EPA 9315
QC Batch Method:	EPA 9315	Analysis Description:	9315 Total Radium
Associated Lab Samples:	269557001, 269557002, 269557003, 269557004, 269557005, 269557006, 269557007, 269557008, 269557009, 269557010		

METHOD BLANK:	1534836	Matrix:	Water
Associated Lab Samples:	269557001, 269557002, 269557003, 269557004, 269557005, 269557006, 269557007, 269557008, 269557009, 269557010		

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.188 ± 0.137 (0.225) C:100% T:NA	pCi/L	10/01/18 09:23	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Yates Phase II

Pace Project No.: 269557

QC Batch:	314657	Analysis Method:	EPA 9320
QC Batch Method:	EPA 9320	Analysis Description:	9320 Radium 228
Associated Lab Samples:	269557001, 269557002, 269557003, 269557004, 269557005, 269557006, 269557007, 269557008, 269557009, 269557010		

METHOD BLANK:	1535684	Matrix:	Water
Associated Lab Samples:	269557001, 269557002, 269557003, 269557004, 269557005, 269557006, 269557007, 269557008, 269557009, 269557010		

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.758 ± 0.397 (0.700) C:79% T:81%	pCi/L	10/09/18 12:59	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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QUALIFIERS

Project: Plant Yates Phase II

Pace Project No.: 269557

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval).

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-PA Pace Analytical Services - Greensburg

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Yates Phase II
Pace Project No.: 269557

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
269557001	YGWA-47	EPA 9315	314442		
269557002	YGWC-42	EPA 9315	314442		
269557003	YGWC-43	EPA 9315	314442		
269557004	YGWC-44	EPA 9315	314442		
269557005	YGWC-45	EPA 9315	314442		
269557006	YGWC-46	EPA 9315	314442		
269557007	YGWC-49	EPA 9315	314442		
269557008	EB-1-9-20-18	EPA 9315	314442		
269557009	Dup-1	EPA 9315	314442		
269557010	FB-1-9-19-18	EPA 9315	314442		
269557001	YGWA-47	EPA 9320	314657		
269557002	YGWC-42	EPA 9320	314657		
269557003	YGWC-43	EPA 9320	314657		
269557004	YGWC-44	EPA 9320	314657		
269557005	YGWC-45	EPA 9320	314657		
269557006	YGWC-46	EPA 9320	314657		
269557007	YGWC-49	EPA 9320	314657		
269557008	EB-1-9-20-18	EPA 9320	314657		
269557009	Dup-1	EPA 9320	314657		
269557010	FB-1-9-19-18	EPA 9320	314657		
269557001	YGWA-47	Total Radium Calculation	316531		
269557002	YGWC-42	Total Radium Calculation	316531		
269557003	YGWC-43	Total Radium Calculation	316531		
269557004	YGWC-44	Total Radium Calculation	316531		
269557005	YGWC-45	Total Radium Calculation	316531		
269557006	YGWC-46	Total Radium Calculation	316531		
269557007	YGWC-49	Total Radium Calculation	316531		
269557008	EB-1-9-20-18	Total Radium Calculation	316531		
269557009	Dup-1	Total Radium Calculation	316531		
269557010	FB-1-9-19-18	Total Radium Calculation	316531		

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CHAIN OF CUSTODY RECORD

Pace Analytical Services, Inc.
 110 TECHNOLOGY PARKWAY, PEACHTREE CORNERS, GA 30092
 (770) 734-4200 : FAX (770) 734-4201 : www.ash-lab.com

PAGE: 1 OF 1

CLIENT NAME:		ANALYSIS REQUESTED		CONTAINER TYPE:		PRESERVATION					
Georgia Power		P P P P P P P P		P P P P P P P P		1 - HCl, ≤6°C 2 - H ₂ SO ₄ , ≤6°C 3 - HNO ₃ 4 - NaOH, ≤6°C 5 - NaOH/ZnAc, ≤6°C 6 - Na ₂ S ₂ O ₃ , ≤6°C 7 - ≤6°C not frozen					
CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER:		CONTAINER TYPE:		PRESERVATION		CONTAINER TYPE:					
241 Ralph McGill Blvd SE B10185		P P P P P P P P		P P P P P P P P		P - PLASTIC A - AMBER GLASS G - CLEAR GLASS V - VOA VIAL S - STERILE O - OTHER					
Atlanta, GA 30308		# of		3 7 3		A - AMBER GLASS G - CLEAR GLASS V - VOA VIAL S - STERILE O - OTHER					
404-506-7239		CONTAINERS				A - AMBER GLASS G - CLEAR GLASS V - VOA VIAL S - STERILE O - OTHER					
REPORT TO:		CC: Maria Padilla Heath McCorkle				A - AMBER GLASS G - CLEAR GLASS V - VOA VIAL S - STERILE O - OTHER					
REQUESTED COMPLETION DATE:		PO #: laburch@southernco.com				A - AMBER GLASS G - CLEAR GLASS V - VOA VIAL S - STERILE O - OTHER					
PROJECT NAME/STATE:		Plant Yates - Phase 2 Facility Wells				A - AMBER GLASS G - CLEAR GLASS V - VOA VIAL S - STERILE O - OTHER					
PROJECT #:		Phase 2 CCR				A - AMBER GLASS G - CLEAR GLASS V - VOA VIAL S - STERILE O - OTHER					
Collection DATE	Collection TIME	MATRIX CODE*	G O R M A B	SAMPLE IDENTIFICATION	Metals App. III & IV (EPA 6020/7470)	C, P, SO ₄ & TDS (FPA 300.0 & SM 2540C)	Radium 226 & 228 (SW-846 9315/9320)	ANALYSIS REQUESTED	CONTAINER TYPE	PRESERVATION	REMARKS/ADDITIONAL INFORMATION
9-19-18	1055	GW	✓	Y6WA-47	1	1	2				
9-20-18	1230	GW	✓	Y6WC-42	1	1	2				
9-20-18	1055	GW	✓	Y6WC-43	1	1	4				
9-19-18	1315	GW	✓	Y6WC-44	1	1	2				
9-19-18	1450	GW	✓	Y6WC-45	1	1	2				
9-19-18	1206	GW	✓	Y6WC-46	1	1	2				
9-20-18	1355	GW	✓	Y6WC-49	1	1	2				
9-20-18	0955	W	✓	FB-1-9-20-18	1	1	2				
9-20-18	—	GW	✓	DUP-1	1	1	2				
9-19-18	1420	W	✓	FB-1-9-19-18	1	1	2				
SAMPLED BY AND TITLE:		DATE/TIME:		RELINQUISHED BY:		DATE/TIME:		FOR LAB USE ONLY			
Alicia		9-20-18 / 1800		Alicia		9-20-18 / 0930					
RECEIVED BY:		DATE/TIME:		RELINQUISHED BY:		DATE/TIME:		LAB #:			
Heath		9-20-18 / 0930		Alicia		9-20-18 / 0930		269557			
RECEIVED BY LAB:		DATE/TIME:		SAMPLE SHIPPED VIA:		COURIER		OTHER		Tracking #:	
Heath		9-20-18 / 0930		UPS		Fed-Ex		USPS			
Temp: 54°C		Min: 14°C Max: 14°C		Intact		Broken		Not Present			

W0#: 269557





Sample Condition Upon Receipt

Client Name: GA Power

Project # _____

WO# : 269557

PM: BM Due Date: 10/19/18
CLIENT: GAPower-CCR

Courier: Fed Ex UPS USPS Client Commercial Pace Other
Tracking #: _____

Custody Seal on Cooler/Box Present: yes no Seals intact: yes no

Packing Material: Bubble Wrap Bubble Bags None Other

Thermometer Used 83 Type of Ice: Wet Blue None

Cooler Temperature 5.4 Biological Tissue is Frozen: Yes No
Temp should be above freezing to 6°C

Samples on ice, cooling process has begun
Date and Initials of person examining contents: 9/21/18 MK

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.		
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.		
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.		
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.		
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.		
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.		
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.		
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.		
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.		
-Pace Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A			
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.		
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.		
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.		
-Includes date/time/ID/Analysis Matrix:	<u>GW</u>			
All containers needing preservation have been checked.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	13.		
All containers needing preservation are found to be in compliance with EPA recommendation.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A			
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Initial when completed	Lot # of added preservative	
Samples checked for dechlorination:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.		
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.		
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	16.		
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A			
Pace Trip Blank Lot # (if purchased):	_____			

Client Notification/ Resolution: _____

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Field Data Required? Y / N

Project Manager Review: _____ **Date:** _____

Product Name: Low-Flow System

Date: 2019-03-27 12:26:47

Project Information:

Operator Name Hunter Auld
Company Name ACC
Project Name Plant Yates-R6
Site Name Plant Yates
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 407447
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED Bladder Pump
Tubing Type poly
Tubing Diameter 0.25 in
Tubing Length 69 ft

Pump placement from TOC 63 ft

Well Information:

Well ID YGWA-39
Well diameter 2 in
Well Total Depth 68.5 ft
Screen Length 10 ft
Depth to Water 22.63 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 1.151039 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 3.2 in
Total Volume Pumped 13.4 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			+/- 0	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 0
Last 5	12:00:06	2404.04	17.63	5.90	81.96	1.30	22.90	2.08	120.57
Last 5	12:05:06	2704.03	17.59	5.89	81.87	1.20	22.90	1.89	122.37
Last 5	12:10:07	3005.04	17.59	5.85	82.45	1.30	22.90	2.15	120.47
Last 5	12:15:12	3310.03	17.59	5.80	81.17	1.00	22.90	2.11	115.72
Last 5	12:25:13	3911.03	17.71	5.84	80.91	1.10	22.90	2.17	110.82
Variance 0			-0.00	-0.04	0.58			0.26	-1.91
Variance 1			0.00	-0.05	-1.28			-0.04	-4.75
Variance 2			0.12	0.05	-0.26			0.07	-4.90

Notes

Sampled at 1227 on 3-27-19. Sunny, 50s. DUP-1 here.

Grab Samples

Product Name: Low-Flow System

Date: 2019-03-26 15:07:31

Project Information:

Operator Name Hunter Auld
Company Name ACC
Project Name Plant Yates-R6
Site Name Plant Yates
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 407447
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED Bladder Pump
Tubing Type poly
Tubing Diameter 0.25 in
Tubing Length 49 ft

Pump placement from TOC 43.5 ft

Well Information:

Well ID YGWA-40
Well diameter 2 in
Well Total Depth 48.35 ft
Screen Length 10 ft
Depth to Water 23.89 ft

Pumping Information:

Final Pumping Rate 160 mL/min
Total System Volume 0.9579839 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 6.1 in
Total Volume Pumped 4.8 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	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 0
Last 5	14:42:26	300.10	17.19	6.22	123.26	1.00	24.40	6.75	203.05
Last 5	14:47:26	600.03	17.18	5.62	115.47	0.40	24.40	5.66	195.73
Last 5	14:52:26	900.02	17.21	5.40	114.88	0.30	24.40	5.31	186.69
Last 5	14:57:26	1200.04	17.23	5.33	115.77	0.30	24.40	5.21	186.69
Last 5	15:02:26	1500.03	17.23	5.30	117.47	0.25	24.40	5.21	187.03
Variance 0			0.03	-0.23	-0.60			-0.35	-9.04
Variance 1			0.03	-0.07	0.89			-0.09	0.00
Variance 2			-0.00	-0.03	1.69			-0.00	0.34

Notes

Sampled at 1507 on 3-26-19. Cloudy, 50s.

Grab Samples

Product Name: Low-Flow System

Date: 2019-03-27 13:34:42

Project Information:

Operator Name Hunter Auld
Company Name ACC
Project Name Plant Yates-R6
Site Name Plant Yates
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 407447
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED Bladder Pump
Tubing Type poly
Tubing Diameter 0.25 in
Tubing Length 51 ft

Pump placement from TOC 45 ft

Well Information:

Well ID YGWC-38
Well diameter 2 in
Well Total Depth 50.12 ft
Screen Length 10 ft
Depth to Water ft

Pumping Information:

Final Pumping Rate 130 mL/min
Total System Volume 0.9772893 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0 in
Total Volume Pumped 4.3 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			+/- 0	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 0
Last 5	13:11:09	600.04	18.48	5.57	1478.32	0.60	--	8.11	136.25
Last 5	13:16:09	900.05	16.92	4.87	1412.99	0.50	--	2.24	167.51
Last 5	13:21:09	1200.03	16.69	4.80	1398.61	0.90	--	1.53	165.63
Last 5	13:26:12	1503.03	16.68	4.79	1399.60	1.10	--	1.41	163.61
Last 5	13:31:12	1803.06	16.74	4.79	1394.50	1.20	--	1.47	162.43
Variance 0			-0.23	-0.06	-14.38			-0.71	-1.87
Variance 1			-0.02	-0.02	0.99			-0.12	-2.02
Variance 2			0.06	0.00	-5.10			0.06	-1.19

Notes

Sampled at 1333 on 3-27-19. Sunny, 50s. Transducer in well. EB-1-3-27-2019 here. Tubing

Grab Samples

Product Name: Low-Flow System

Date: 2019-03-28 11:47:22

Project Information:

Operator Name Chris Parker
Company Name Atlantic Coast Consulting
Project Name Plant Yates - R6
Site Name Plant Yates
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 369807
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type Bladder Pump
Tubing Type Poly
Tubing Diameter .17 in
Tubing Length 67 ft

Pump placement from TOC 62 ft

Well Information:

Well ID YGWC-41
Well diameter 2 in
Well Total Depth 67.70 ft
Screen Length 10 ft
Depth to Water 24.94 ft

Pumping Information:

Final Pumping Rate 220 mL/min
Total System Volume 0.7840493 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 6 in
Total Volume Pumped 11 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	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	11:18:58	900.00	18.37	5.13	571.20	1.21	25.50	1.97	205.39
Last 5	11:23:58	1200.00	18.52	5.04	570.94	1.79	25.50	2.27	205.66
Last 5	11:33:58	1799.98	18.45	5.02	574.03	0.78	25.50	2.73	204.20
Last 5	11:38:58	2099.97	18.60	5.01	575.54	0.52	25.50	2.73	204.35
Last 5	11:43:58	2399.96	18.78	5.00	574.23	0.49	25.50	2.71	202.41
Variance 0			-0.06	-0.03	3.09			0.46	-1.46
Variance 1			0.15	-0.01	1.51			-0.00	0.15
Variance 2			0.18	-0.01	-1.32			-0.02	-1.94

Notes

Sampled at 11:50. Sunny 80s

Grab Samples

Product Name: Low-Flow System

Date: 2019-03-27 15:13:21

Project Information:

Operator Name Hunter Auld
Company Name ACC
Project Name Plant Yates-R6
Site Name Plant Yates
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 407447
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED Bladder Pump
Tubing Type poly
Tubing Diameter 0.25 in
Tubing Length 60 ft

Pump placement from TOC 55 ft

Well Information:

Well ID YGWC-42
Well diameter 2 in
Well Total Depth 60 ft
Screen Length 10 ft
Depth to Water 25.59 ft

Pumping Information:

Final Pumping Rate 130 mL/min
Total System Volume 1.064164 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 20.52 in
Total Volume Pumped 7.2 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	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 0
Last 5	14:52:03	1806.04	18.26	5.59	1305.59	11.50	27.20	0.54	117.10
Last 5	14:57:03	2106.02	17.87	5.59	1322.36	10.60	27.30	0.65	116.16
Last 5	15:02:29	2432.04	17.59	5.59	1328.38	9.35	27.30	0.68	117.94
Last 5	15:07:29	2732.03	17.49	5.58	1346.46	6.45	27.30	0.66	118.23
Last 5	15:12:29	3032.03	17.37	5.57	1360.60	4.83	27.30	0.70	121.07
Variance 0			-0.28	0.00	6.02			0.03	1.79
Variance 1			-0.09	-0.01	18.08			-0.02	0.29
Variance 2			-0.13	-0.01	14.14			0.04	2.83

Notes

Sampled at 1515 on 3-27-19. Sunny, 60.

Grab Samples

Product Name: Low-Flow System

Date: 2019-03-28 14:01:20

Project Information:

Operator Name Chris Parker
Company Name Atlantic Coast Consulting
Project Name Plant Yates - R6
Site Name Plant Yates
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 369807
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type Bladder Pump
Tubing Type Poly
Tubing Diameter .25 in
Tubing Length 80 ft

Pump placement from TOC 75 ft

Well Information:

Well ID YGWC-43
Well diameter 2 in
Well Total Depth 80.0 ft
Screen Length 10 ft
Depth to Water 14.12 ft

Pumping Information:

Final Pumping Rate 230 mL/min
Total System Volume 1.257218 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 3 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	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	13:37:50	600.01	18.48	6.54	419.74	7.06	14.30	0.11	39.05
Last 5	13:42:50	900.00	18.34	6.07	452.65	6.22	14.30	0.06	53.09
Last 5	13:47:50	1199.99	18.34	5.98	463.09	5.25	14.30	0.05	58.27
Last 5	13:52:50	1499.98	18.19	5.97	466.03	4.64	14.30	0.05	64.59
Last 5	13:57:50	1799.98	18.26	5.96	467.90	4.04	14.30	0.06	71.83
Variance 0			-0.00	-0.08	10.44			-0.01	5.18
Variance 1			-0.15	-0.02	2.93			0.00	6.32
Variance 2			0.07	-0.01	1.88			0.01	7.24

Notes

Sampled at 14:05. Sunny 60s. FB 1 here at 13:40.

Grab Samples

April 07, 2019

Joju Abraham
Georgia Power - Coal Combustion Residuals
2480 Maner Road
Atlanta, GA 30339

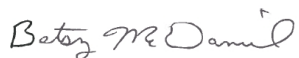
RE: Project: Plant Yates-R6
Pace Project No.: 2616760

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on March 29, 2019. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Betsy McDaniel
betsy.mcdaniel@pacelabs.com
(770)734-4200
Project Manager

Enclosures

cc: Chris Parker, Atlantic Coast Consulting
Evan Perry, Atlantic Coast Consulting
Lauren Petty, Southern Company Services, Inc.
Rebecca Thornton, Pace Analytical Atlanta



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: Plant Yates-R6

Pace Project No.: 2616760

Atlanta Certification IDs

110 Technology Parkway Peachtree Corners, GA 30092

Florida DOH Certification #: E87315

Georgia DW Inorganics Certification #: 812

Georgia DW Microbiology Certification #: 812

North Carolina Certification #: 381

South Carolina Certification #: 98011001

Virginia Certification #: 460204

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: Plant Yates-R6

Pace Project No.: 2616760

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2616760001	YGWA-39	Water	03/27/19 12:27	03/29/19 10:10
2616760002	YGWA-40	Water	03/26/19 15:07	03/29/19 10:10
2616760003	YGWC-38	Water	03/27/19 13:33	03/29/19 10:10
2616760004	YGWC-41	Water	03/28/19 11:50	03/29/19 10:10
2616760005	YGWC-42	Water	03/27/19 15:15	03/29/19 10:10
2616760006	YGWC-43	Water	03/28/19 14:05	03/29/19 10:10
2616760007	EB-1-3-27-19	Water	03/27/19 13:45	03/29/19 10:10
2616760008	Dup-1	Water	03/27/19 00:00	03/29/19 10:10
2616760009	FB-1-3-28-19	Water	03/28/19 13:40	03/29/19 10:10

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SAMPLE ANALYTE COUNT

Project: Plant Yates-R6

Pace Project No.: 2616760

Lab ID	Sample ID	Method	Analysts	Analytes Reported
2616760001	YGWA-39	EPA 6020B	CSW	2
		SM 2540C	RLC	1
		EPA 300.0	RLC	3
2616760002	YGWA-40	EPA 6020B	CSW	2
		SM 2540C	RLC	1
		EPA 300.0	RLC	3
2616760003	YGWC-38	EPA 6020B	CSW	2
		SM 2540C	RLC	1
		EPA 300.0	RLC	3
2616760004	YGWC-41	EPA 6020B	CSW	2
		SM 2540C	RLC	1
		EPA 300.0	RLC	3
2616760005	YGWC-42	EPA 6020B	CSW	2
		SM 2540C	RLC	1
		EPA 300.0	RLC	3
2616760006	YGWC-43	EPA 6020B	CSW	2
		SM 2540C	RLC	1
		EPA 300.0	RLC	3
2616760007	EB-1-3-27-19	EPA 6020B	CSW	2
		SM 2540C	RLC	1
		EPA 300.0	RLC	3
2616760008	Dup-1	EPA 6020B	CSW	2
		SM 2540C	RLC	1
		EPA 300.0	RLC	3
2616760009	FB-1-3-28-19	EPA 6020B	CSW	2
		SM 2540C	RLC	1
		EPA 300.0	RLC	3

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Yates-R6

Pace Project No.: 2616760

Sample: YGWA-39		Lab ID: 2616760001		Collected: 03/27/19 12:27		Received: 03/29/19 10:10		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Boron	0.017J	mg/L	0.040	0.0039	1	04/03/19 11:25	04/04/19 19:00	7440-42-8	
Calcium	1.5	mg/L	0.50	0.014	1	04/03/19 11:25	04/04/19 19:00	7440-70-2	
2540C Total Dissolved Solids		Analytical Method: SM 2540C							
Total Dissolved Solids	75.0	mg/L	25.0	10.0	1		04/03/19 18:51		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Chloride	1.4	mg/L	0.25	0.024	1		04/04/19 19:18	16887-00-6	
Fluoride	ND	mg/L	0.30	0.029	1		04/04/19 19:18	16984-48-8	
Sulfate	17.7	mg/L	1.0	0.017	1		04/04/19 19:18	14808-79-8	M1

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Yates-R6

Pace Project No.: 2616760

Sample: YGWA-40		Lab ID: 2616760002		Collected: 03/26/19 15:07	Received: 03/29/19 10:10	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Boron	0.096	mg/L	0.040	0.0039	1	04/03/19 11:25	04/04/19 19:11	7440-42-8	
Calcium	5.6	mg/L	0.50	0.014	1	04/03/19 11:25	04/04/19 19:11	7440-70-2	
2540C Total Dissolved Solids		Analytical Method: SM 2540C							
Total Dissolved Solids	90.0	mg/L	25.0	10.0	1		04/02/19 19:22		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Chloride	4.4	mg/L	0.25	0.024	1		04/04/19 20:20	16887-00-6	
Fluoride	ND	mg/L	0.30	0.029	1		04/04/19 20:20	16984-48-8	
Sulfate	34.3	mg/L	1.0	0.017	1		04/04/19 20:20	14808-79-8	M1

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Yates-R6

Pace Project No.: 2616760

Sample: YGWC-38		Lab ID: 2616760003		Collected: 03/27/19 13:33	Received: 03/29/19 10:10	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Boron	16.7	mg/L	2.0	0.20	50	04/03/19 11:25	04/04/19 19:28	7440-42-8	
Calcium	155	mg/L	25.0	0.69	50	04/03/19 11:25	04/04/19 19:28	7440-70-2	
2540C Total Dissolved Solids		Analytical Method: SM 2540C							
Total Dissolved Solids	1190	mg/L	25.0	10.0	1		04/03/19 18:51		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Chloride	6.2	mg/L	0.25	0.024	1		04/04/19 20:41	16887-00-6	
Fluoride	0.24J	mg/L	0.30	0.029	1		04/04/19 20:41	16984-48-8	
Sulfate	851	mg/L	50.0	0.85	50		04/06/19 07:24	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Yates-R6

Pace Project No.: 2616760

Sample: YGWC-41		Lab ID: 2616760004		Collected: 03/28/19 11:50		Received: 03/29/19 10:10		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Boron	7.1	mg/L	0.040	0.0039	1	04/03/19 11:25	04/04/19 19:46	7440-42-8	
Calcium	26.0	mg/L	25.0	0.69	50	04/03/19 11:25	04/04/19 19:51	7440-70-2	
2540C Total Dissolved Solids		Analytical Method: SM 2540C							
Total Dissolved Solids	372	mg/L	25.0	10.0	1		04/03/19 18:42		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Chloride	3.2	mg/L	0.25	0.024	1		04/04/19 21:01	16887-00-6	
Fluoride	0.10J	mg/L	0.30	0.029	1		04/04/19 21:01	16984-48-8	
Sulfate	258	mg/L	10.0	0.17	10		04/06/19 07:49	14808-79-8	

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ANALYTICAL RESULTS

Project: Plant Yates-R6

Pace Project No.: 2616760

Sample: YGWC-42		Lab ID: 2616760005		Collected: 03/27/19 15:15	Received: 03/29/19 10:10	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Boron	20.3	mg/L	2.0	0.20	50	04/03/19 11:25	04/04/19 20:03	7440-42-8		
Calcium	109	mg/L	25.0	0.69	50	04/03/19 11:25	04/04/19 20:03	7440-70-2		
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	1100	mg/L	25.0	10.0	1		04/03/19 18:51			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Chloride	3.9	mg/L	0.25	0.024	1		04/04/19 21:22	16887-00-6		
Fluoride	ND	mg/L	0.30	0.029	1		04/04/19 21:22	16984-48-8		
Sulfate	831	mg/L	50.0	0.85	50		04/06/19 08:14	14808-79-8		

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ANALYTICAL RESULTS

Project: Plant Yates-R6

Pace Project No.: 2616760

Sample: YGWC-43		Lab ID: 2616760006		Collected: 03/28/19 14:05	Received: 03/29/19 10:10	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Boron	1.8	mg/L	0.040	0.0039	1	04/03/19 11:25	04/04/19 20:08	7440-42-8	
Calcium	8.9	mg/L	0.50	0.014	1	04/03/19 11:25	04/04/19 20:08	7440-70-2	
2540C Total Dissolved Solids		Analytical Method: SM 2540C							
Total Dissolved Solids	323	mg/L	25.0	10.0	1		04/03/19 18:42		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Chloride	1.8	mg/L	0.25	0.024	1		04/04/19 21:43	16887-00-6	
Fluoride	0.078J	mg/L	0.30	0.029	1		04/04/19 21:43	16984-48-8	
Sulfate	181	mg/L	10.0	0.17	10		04/06/19 08:39	14808-79-8	

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ANALYTICAL RESULTS

Project: Plant Yates-R6

Pace Project No.: 2616760

Sample: EB-1-3-27-19		Lab ID: 2616760007		Collected: 03/27/19 13:45	Received: 03/29/19 10:10	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Boron	0.0095J	mg/L	0.040	0.0039	1	04/03/19 11:25	04/04/19 20:20	7440-42-8		
Calcium	ND	mg/L	0.50	0.014	1	04/03/19 11:25	04/04/19 20:20	7440-70-2		
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	34.0	mg/L	25.0	10.0	1		04/03/19 18:51			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Chloride	0.068J	mg/L	0.25	0.024	1		04/04/19 22:04	16887-00-6	B	
Fluoride	ND	mg/L	0.30	0.029	1		04/04/19 22:04	16984-48-8		
Sulfate	0.16J	mg/L	1.0	0.017	1		04/04/19 22:04	14808-79-8	B	

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ANALYTICAL RESULTS

Project: Plant Yates-R6

Pace Project No.: 2616760

Sample: Dup-1		Lab ID: 2616760008		Collected: 03/27/19 00:00	Received: 03/29/19 10:10	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Boron	0.024J	mg/L	0.040	0.0039	1	04/03/19 11:25	04/04/19 20:26	7440-42-8		
Calcium	1.5	mg/L	0.50	0.014	1	04/03/19 11:25	04/04/19 20:26	7440-70-2		
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	83.0	mg/L	25.0	10.0	1		04/03/19 18:52			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Chloride	1.4	mg/L	0.25	0.024	1		04/04/19 22:24	16887-00-6		
Fluoride	ND	mg/L	0.30	0.029	1		04/04/19 22:24	16984-48-8		
Sulfate	17.7	mg/L	1.0	0.017	1		04/04/19 22:24	14808-79-8		

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ANALYTICAL RESULTS

Project: Plant Yates-R6

Pace Project No.: 2616760

Sample: FB-1-3-28-19		Lab ID: 2616760009		Collected: 03/28/19 13:40	Received: 03/29/19 10:10	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Boron	ND	mg/L	0.040	0.0039	1	04/03/19 11:25	04/04/19 20:37	7440-42-8		
Calcium	ND	mg/L	0.50	0.014	1	04/03/19 11:25	04/04/19 20:37	7440-70-2		
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	ND	mg/L	25.0	10.0	1		04/03/19 18:42			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Chloride	0.069J	mg/L	0.25	0.024	1		04/05/19 00:08	16887-00-6	B	
Fluoride	ND	mg/L	0.30	0.029	1		04/05/19 00:08	16984-48-8		
Sulfate	0.045J	mg/L	1.0	0.017	1		04/05/19 00:08	14808-79-8	B	

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QUALITY CONTROL DATA

Project: Plant Yates-R6

Pace Project No.: 2616760

QC Batch: 25683

Analysis Method: EPA 6020B

QC Batch Method: EPA 3005A

Analysis Description: 6020B MET

Associated Lab Samples: 2616760001, 2616760002, 2616760003, 2616760004, 2616760005, 2616760006, 2616760007, 2616760008, 2616760009

METHOD BLANK: 115845

Matrix: Water

Associated Lab Samples: 2616760001, 2616760002, 2616760003, 2616760004, 2616760005, 2616760006, 2616760007, 2616760008, 2616760009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron	mg/L	ND	0.040	0.0039	04/04/19 18:37	
Calcium	mg/L	ND	0.50	0.014	04/04/19 18:37	

LABORATORY CONTROL SAMPLE: 115846

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	mg/L	1	1.0	100	80-120	
Calcium	mg/L	1	0.97	97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 115847 115848

Parameter	Units	2616761004 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	MS Result	Spike Conc.	MSD Result						
Boron	mg/L	0.89	1	1.8	1	1.8	94	89	75-125	2	20	
Calcium	mg/L	54.2	1	58.6	1	54.4	439	16	75-125	7	20	M6

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QUALITY CONTROL DATA

Project: Plant Yates-R6

Pace Project No.: 2616760

QC Batch: 25629	Analysis Method: SM 2540C
QC Batch Method: SM 2540C	Analysis Description: 2540C Total Dissolved Solids
Associated Lab Samples: 2616760002	

LABORATORY CONTROL SAMPLE: 115527

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	406	102	84-108	

SAMPLE DUPLICATE: 115528

Parameter	Units	2616666007 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	292	305	4	10	

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QUALITY CONTROL DATA

Project: Plant Yates-R6

Pace Project No.: 2616760

QC Batch: 25700 Analysis Method: SM 2540C
 QC Batch Method: SM 2540C Analysis Description: 2540C Total Dissolved Solids
 Associated Lab Samples: 2616760001, 2616760003, 2616760005, 2616760007, 2616760008

LABORATORY CONTROL SAMPLE: 115940

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	383	96	84-108	

SAMPLE DUPLICATE: 115941

Parameter	Units	2616689004 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	10.0J	ND		10	

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QUALITY CONTROL DATA

Project: Plant Yates-R6
Pace Project No.: 2616760

QC Batch: 25701 Analysis Method: SM 2540C
QC Batch Method: SM 2540C Analysis Description: 2540C Total Dissolved Solids
Associated Lab Samples: 2616760004, 2616760006, 2616760009

LABORATORY CONTROL SAMPLE: 115944

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	399	100	84-108	

SAMPLE DUPLICATE: 115945

Parameter	Units	2616761001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	170	167	2	10	

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QUALITY CONTROL DATA

Project: Plant Yates-R6
Pace Project No.: 2616760

QC Batch: 25766 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 2616760001, 2616760002, 2616760003, 2616760004, 2616760005, 2616760006, 2616760007, 2616760008, 2616760009

METHOD BLANK: 116236 Matrix: Water
Associated Lab Samples: 2616760001, 2616760002, 2616760003, 2616760004, 2616760005, 2616760006, 2616760007, 2616760008, 2616760009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	0.053J	0.25	0.024	04/04/19 18:36	
Fluoride	mg/L	ND	0.30	0.029	04/04/19 18:36	
Sulfate	mg/L	0.060J	1.0	0.017	04/04/19 18:36	

LABORATORY CONTROL SAMPLE: 116237

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	10	10.1	101	90-110	
Fluoride	mg/L	10	10.1	101	90-110	
Sulfate	mg/L	10	9.9	99	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 116238 116239

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		Spike Conc.	Result	Spike Conc.	Result						
Chloride	mg/L	10	1.4	10	11.2	99	100	90-110	1	15	
Fluoride	mg/L	10	ND	10	9.8	98	99	90-110	1	15	
Sulfate	mg/L	10	17.7	10	26.1	84	85	90-110	0	15 M1	

MATRIX SPIKE SAMPLE: 116240

Parameter	Units	2616760002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	4.4	10	14.7	103	90-110	
Fluoride	mg/L	ND	10	10.1	101	90-110	
Sulfate	mg/L	34.3	10	41.3	69	90-110 M1	

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REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: Plant Yates-R6

Pace Project No.: 2616760

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

B Analyte was detected in the associated method blank.

M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

M6 Matrix spike and Matrix spike duplicate recovery not evaluated against control limits due to sample dilution.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Yates-R6
Pace Project No.: 2616760

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2616760001	YGWA-39	EPA 3005A	25683	EPA 6020B	25758
2616760002	YGWA-40	EPA 3005A	25683	EPA 6020B	25758
2616760003	YGWC-38	EPA 3005A	25683	EPA 6020B	25758
2616760004	YGWC-41	EPA 3005A	25683	EPA 6020B	25758
2616760005	YGWC-42	EPA 3005A	25683	EPA 6020B	25758
2616760006	YGWC-43	EPA 3005A	25683	EPA 6020B	25758
2616760007	EB-1-3-27-19	EPA 3005A	25683	EPA 6020B	25758
2616760008	Dup-1	EPA 3005A	25683	EPA 6020B	25758
2616760009	FB-1-3-28-19	EPA 3005A	25683	EPA 6020B	25758
2616760001	YGWA-39	SM 2540C	25700		
2616760002	YGWA-40	SM 2540C	25629		
2616760003	YGWC-38	SM 2540C	25700		
2616760004	YGWC-41	SM 2540C	25701		
2616760005	YGWC-42	SM 2540C	25700		
2616760006	YGWC-43	SM 2540C	25701		
2616760007	EB-1-3-27-19	SM 2540C	25700		
2616760008	Dup-1	SM 2540C	25700		
2616760009	FB-1-3-28-19	SM 2540C	25701		
2616760001	YGWA-39	EPA 300.0	25766		
2616760002	YGWA-40	EPA 300.0	25766		
2616760003	YGWC-38	EPA 300.0	25766		
2616760004	YGWC-41	EPA 300.0	25766		
2616760005	YGWC-42	EPA 300.0	25766		
2616760006	YGWC-43	EPA 300.0	25766		
2616760007	EB-1-3-27-19	EPA 300.0	25766		
2616760008	Dup-1	EPA 300.0	25766		
2616760009	FB-1-3-28-19	EPA 300.0	25766		

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Pace Analytical Services, Inc.
 110 TECHNOLOGY PARKWAY, PEACHTREE CORNERS, GA 30092
 (770) 734-4200 : FAX (770) 734-4201

CHAIN OF CUSTODY RECORD

CLIENT NAME: Georgia Power CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER: 241 Ralph McGill Blvd SE B10185 Atlanta, GA 30308 404-506-7239		ANALYSIS REQUESTED P P P 3 7		CONTAINER TYPE: PRESERVATION: # of CONTAINERS		CONTAINER TYPE: P - PLASTIC A - AMBER GLASS G - CLEAR GLASS V - VOA VIAL S - STERILE O - OTHER		PRESERVATION 1 - HCl, ≤6°C 2 - H ₂ SO ₄ , ≤6°C 3 - HNO ₃ 4 - NaOH, ≤6°C 5 - NaOH/ZnAc, ≤6°C 6 - Na ₂ S ₂ O ₃ , ≤6°C 7 - ≤6°C not frozen	
REPORT TO: Joju Abraham		CC:		PROJECT NAME/STATE: Plant Yates - R6		MATRIX CODES: DW - DRINKING WATER S - SOIL MW - WASTEWATER SL - SLUDGE GW - GROUNDWATER SD - SOLID SW - SURFACE WATER A - AIR ST - STORM WATER L - LIQUID W - WATER P - PRODUCT		REMARKS/ADDITIONAL INFORMATION	
PROJECT #:		RECEIVED BY AND TITLE: <i>See above</i>		RELINQUISHED BY: <i>See above</i>		DATE/TIME: 3-27-19		DATE/TIME: 3-29-19	
RECEIVED BY LAB: <i>M. A. Luman</i>		DATE/TIME: 3/29/19 1010		RELINQUISHED BY: <i>See above</i>		DATE/TIME: 3-29-19		LAB #: 1010	
PH checked: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> NA <input type="checkbox"/>		TEMPERATURE: Min <input type="checkbox"/> Max <input type="checkbox"/>		SHIPMENT: Quantity Seal: Intact <input checked="" type="checkbox"/> Broken <input type="checkbox"/> Not Present <input type="checkbox"/>		SAMPLE SHIPPED VIA: UPS <input checked="" type="checkbox"/> FED-EX <input type="checkbox"/> USPS <input type="checkbox"/> COURIER <input type="checkbox"/> CLIENT <input checked="" type="checkbox"/> OTHER <input type="checkbox"/> FS <input type="checkbox"/>		ENTERED INTO LIMS: Tracking #	
COLLECTION DATE		MATRIX CODE*		SAMPLE IDENTIFICATION		CONTAINER TYPE		PRESERVATION	
3-27-19	1227	GW	✓	YGWA-39	1	1	1	1	1
3-26-19	1507	GW	✓	YGWA-40	1	1	1	1	1
3-27-19	1333	GW	✓	YGWC-38	1	1	1	1	1
3-28-19	1150	GW	✓	YGWC-41	1	1	1	1	1
3-27-19	1515	GW	✓	YGWC-42	1	1	1	1	1
3-28-19	1405	GW	✓	YGWC-43	1	1	1	1	1
3-27-19	1345	W	✓	EB-13-27-19	1	1	1	1	1
3-27-19	—	GW	✓	Dup-1	1	1	1	1	1
3-28-19	1340	W	✓	FB-1-3-28-19	1	1	1	1	1

WO#: 2616760



Sample Condition Upon Receipt

Client Name: GLA Power

Project # _____

Courier: Fed Ex UPS USPS Client Commercial Pace Other
Tracking #: _____

WO#: **2616760**

PM: BM Due Date: 04/05/19
CLIENT: GAPower-CCR

Custody Seal on Cooler/Box Present: yes no Seals intact: yes

Packing Material: Bubble Wrap Bubble Bags None Other

Thermometer Used 8.3 Type of Ice: Wet Blue None

Samples on ice, cooling process has begun

Cooler Temperature 0.3 Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: 3/29/19 MK

Temp should be above freezing to 6°C Comments:

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.		
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.		
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.		
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.		
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.		
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.		
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.		
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.		
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.		
-Pace Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A			
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.		
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.		
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.		
-Includes date/time/ID/Analysis Matrix:	<u>W</u>			
All containers needing preservation have been checked.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	13.		
All containers needing preservation are found to be in compliance with EPA recommendation.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A			
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Initial when completed	Lot # of added preservative	
Samples checked for dechlorination:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.		
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.		
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	16.		
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A			
Pace Trip Blank Lot # (if purchased):				

Client Notification/ Resolution: _____ Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____ Date: _____

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

APPENDIX B

STATISTICAL ANALYSES

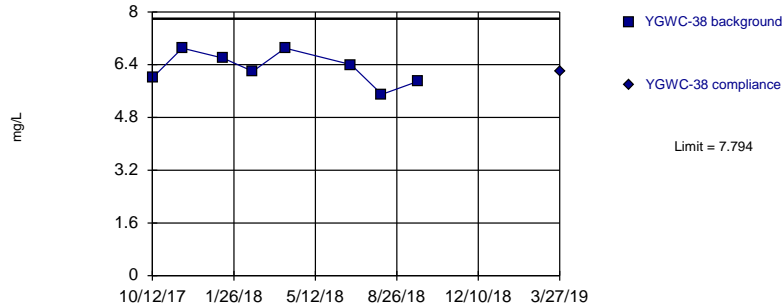
Intrawell Prediction Limit

Plant Yates Client: Southern Company Data: Yates R6 Printed 6/27/2019, 5:26 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Date</u>	<u>Observ.</u>	<u>Sig.</u>	<u>Bg N</u>	<u>%NDs</u>	<u>Trans...</u>	<u>Alpha</u>	<u>Method</u>
Chloride (mg/L)	YGWC-38	7.794	n/a	3/27/2019	6.2	No	8	0	No	0.0009403	Param Intra 1 of 2
Chloride (mg/L)	YGWA-39	3.994	n/a	3/27/2019	1.4	No	8	0	No	0.0009403	Param Intra 1 of 2
Chloride (mg/L)	YGWA-40	6.542	n/a	3/26/2019	4.4	No	8	0	No	0.0009403	Param Intra 1 of 2
Chloride (mg/L)	YGWC-41	5.026	n/a	3/28/2019	3.2	No	8	0	No	0.0009403	Param Intra 1 of 2
Chloride (mg/L)	YGWC-42	5.532	n/a	3/27/2019	3.9	No	8	0	No	0.0009403	Param Intra 1 of 2
Chloride (mg/L)	YGWC-43	2.241	n/a	3/28/2019	1.8	No	8	0	No	0.0009403	Param Intra 1 of 2
pH (S.U.)	YGWC-38	5.214	4.411	3/27/2019	4.79	No	8	0	No	0.0004701	Param Intra 1 of 2
pH (S.U.)	YGWA-39	7.75	5.045	3/27/2019	5.84	No	8	0	No	0.0004701	Param Intra 1 of 2
pH (S.U.)	YGWA-40	6.187	4.438	3/26/2019	5.3	No	8	0	No	0.0004701	Param Intra 1 of 2
pH (S.U.)	YGWC-41	5.478	4.262	3/28/2019	5	No	8	0	No	0.0004701	Param Intra 1 of 2
pH (S.U.)	YGWC-42	6.618	4.937	3/27/2019	5.57	No	8	0	No	0.0004701	Param Intra 1 of 2
pH (S.U.)	YGWC-43	7.864	4.971	3/28/2019	5.96	No	8	0	No	0.0004701	Param Intra 1 of 2

Within Limit

Prediction Limit
Intrawell Parametric

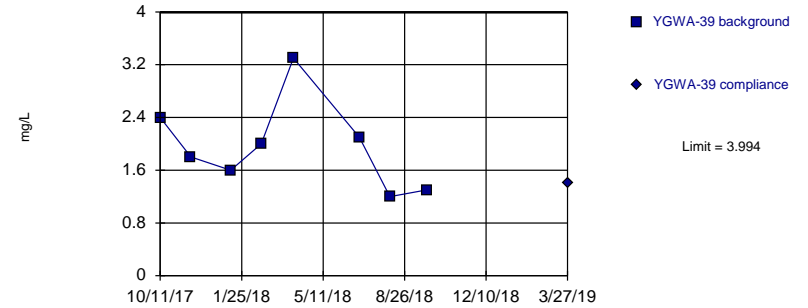


Background Data Summary: Mean=6.3, Std. Dev.=0.4957, n=8. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9518, critical = 0.749. Kappa = 3.014 (c=7, w=8, 1 of 2, event alpha = 0.05132). Report alpha = 0.0009403.

Constituent: Chloride Analysis Run 6/27/2019 5:27 PM View: Yates R6 - Intrawell
Plant Yates Client: Southern Company Data: Yates R6

Within Limit

Prediction Limit
Intrawell Parametric

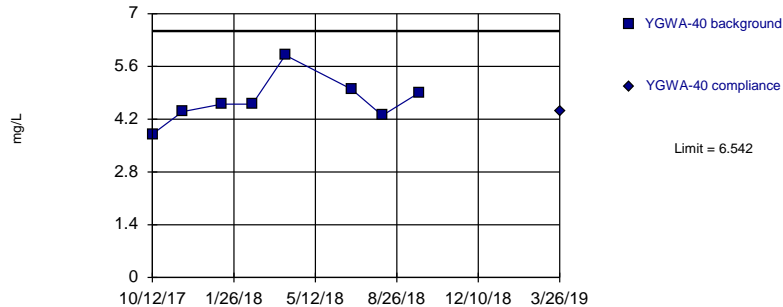


Background Data Summary: Mean=1.963, Std. Dev.=0.6739, n=8. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9278, critical = 0.749. Kappa = 3.014 (c=7, w=8, 1 of 2, event alpha = 0.05132). Report alpha = 0.0009403.

Constituent: Chloride Analysis Run 6/27/2019 5:27 PM View: Yates R6 - Intrawell
Plant Yates Client: Southern Company Data: Yates R6

Within Limit

Prediction Limit
Intrawell Parametric

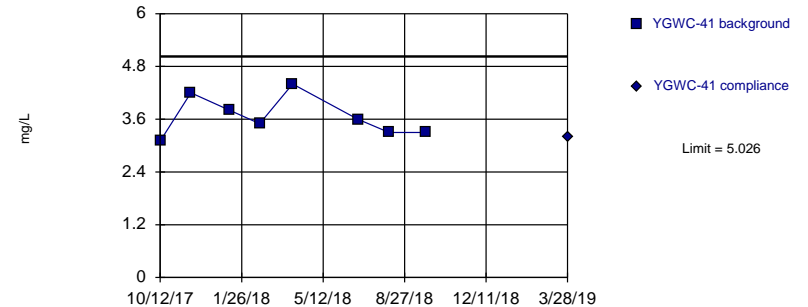


Background Data Summary: Mean=4.688, Std. Dev.=0.6151, n=8. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9419, critical = 0.749. Kappa = 3.014 (c=7, w=8, 1 of 2, event alpha = 0.05132). Report alpha = 0.0009403.

Constituent: Chloride Analysis Run 6/27/2019 5:27 PM View: Yates R6 - Intrawell
Plant Yates Client: Southern Company Data: Yates R6

Within Limit

Prediction Limit
Intrawell Parametric

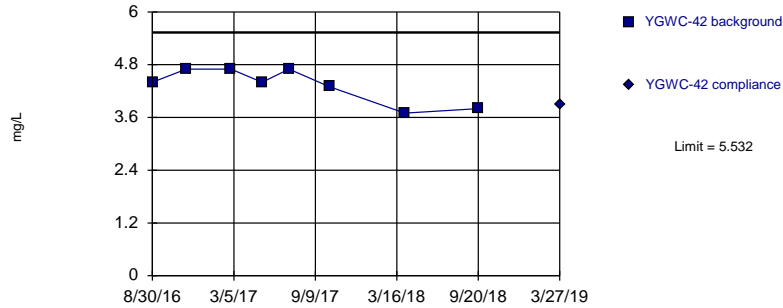


Background Data Summary: Mean=3.65, Std. Dev.=0.4567, n=8. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9285, critical = 0.749. Kappa = 3.014 (c=7, w=8, 1 of 2, event alpha = 0.05132). Report alpha = 0.0009403.

Constituent: Chloride Analysis Run 6/27/2019 5:27 PM View: Yates R6 - Intrawell
Plant Yates Client: Southern Company Data: Yates R6

Within Limit

Prediction Limit
Intrawell Parametric

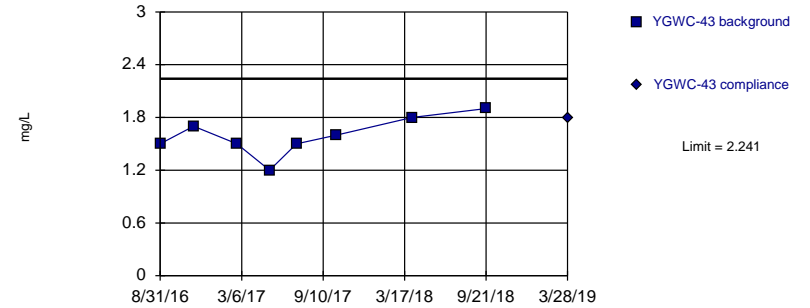


Background Data Summary: Mean=4.338, Std. Dev.=0.3962, n=8. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8382, critical = 0.749. Kappa = 3.014 (c=7, w=8, 1 of 2, event alpha = 0.05132). Report alpha = 0.0009403.

Constituent: Chloride Analysis Run 6/27/2019 5:27 PM View: Yates R6 - Intrawell
Plant Yates Client: Southern Company Data: Yates R6

Within Limit

Prediction Limit
Intrawell Parametric

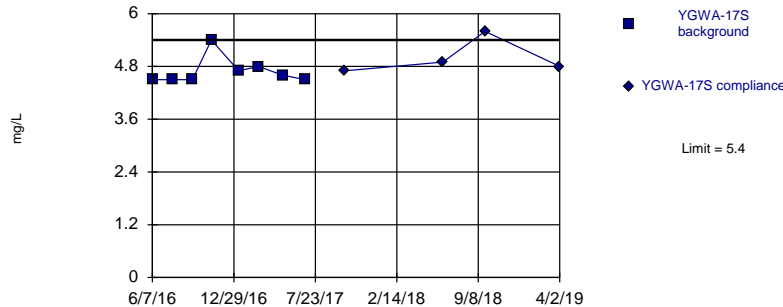


Background Data Summary: Mean=1.588, Std. Dev.=0.2167, n=8. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9506, critical = 0.749. Kappa = 3.014 (c=7, w=8, 1 of 2, event alpha = 0.05132). Report alpha = 0.0009403.

Constituent: Chloride Analysis Run 6/27/2019 5:27 PM View: Yates R6 - Intrawell
Plant Yates Client: Southern Company Data: Yates R6

Within Limit

Prediction Limit
Intrawell Non-parametric

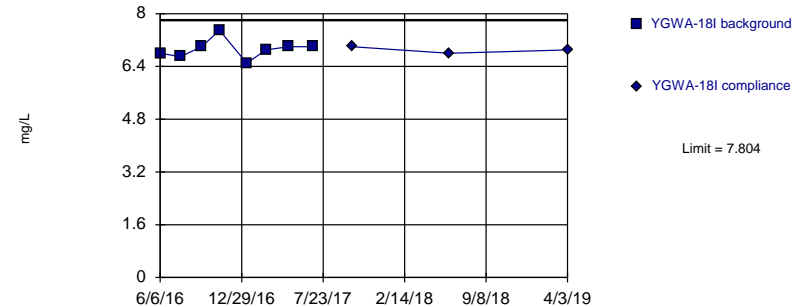


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 8 background values. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2). Insufficient data to test for seasonality: data were not deseasonalized.

Constituent: Chloride Analysis Run 6/27/2019 5:27 PM View: Yates R6 - Intrawell
Plant Yates Client: Southern Company Data: Yates R6

Within Limit

Prediction Limit
Intrawell Parametric

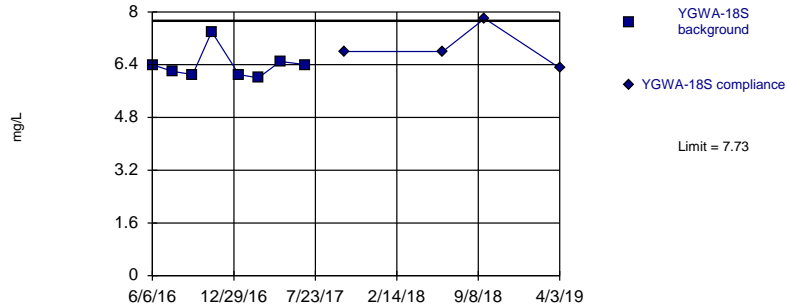


Background Data Summary: Mean=6.925, Std. Dev.=0.2915, n=8. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9218, critical = 0.749. Kappa = 3.014 (c=7, w=8, 1 of 2, event alpha = 0.05132). Report alpha = 0.0009403.

Constituent: Chloride Analysis Run 6/27/2019 5:27 PM View: Yates R6 - Intrawell
Plant Yates Client: Southern Company Data: Yates R6

Within Limit

Prediction Limit
Intrawell Parametric

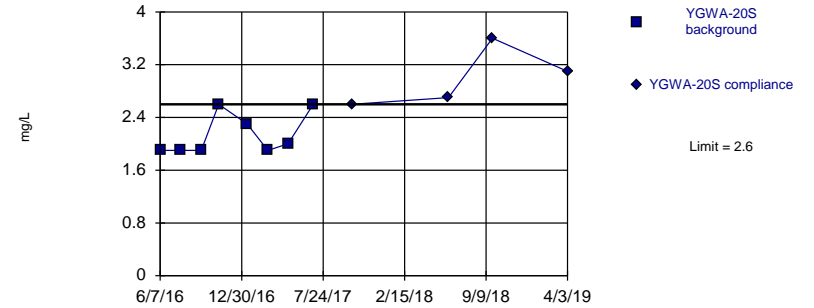


Background Data Summary: Mean=6.388, Std. Dev.=0.4454, n=8. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7749, critical = 0.749. Kappa = 3.014 (c=7, w=8, 1 of 2, event alpha = 0.05132). Report alpha = 0.0009403.

Constituent: Chloride Analysis Run 6/27/2019 5:27 PM View: Yates R6 - Intrawell
Plant Yates Client: Southern Company Data: Yates R6

Exceeds Limit

Prediction Limit
Intrawell Non-parametric

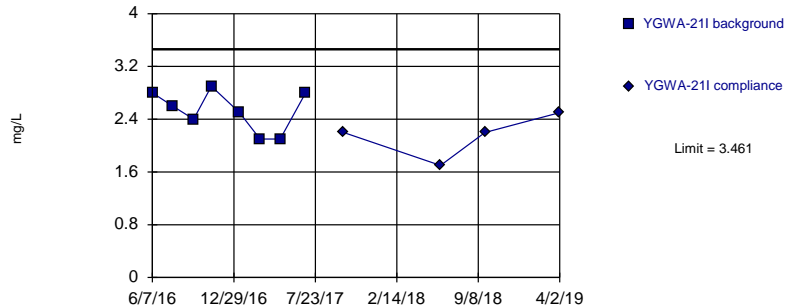


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 8 background values. Well-constituent pair annual alpha = 0.04242. Individual comparison alpha = 0.02144 (1 of 2). Insufficient data to test for seasonality: data were not deseasonalized.

Constituent: Chloride Analysis Run 6/27/2019 5:27 PM View: Yates R6 - Intrawell
Plant Yates Client: Southern Company Data: Yates R6

Within Limit

Prediction Limit
Intrawell Parametric

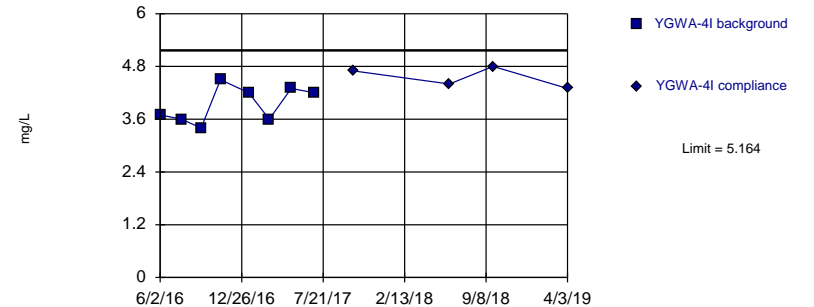


Background Data Summary: Mean=2.525, Std. Dev.=0.3105, n=8. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9036, critical = 0.749. Kappa = 3.014 (c=7, w=8, 1 of 2, event alpha = 0.05132). Report alpha = 0.0009403.

Constituent: Chloride Analysis Run 6/27/2019 5:27 PM View: Yates R6 - Intrawell
Plant Yates Client: Southern Company Data: Yates R6

Within Limit

Prediction Limit
Intrawell Parametric

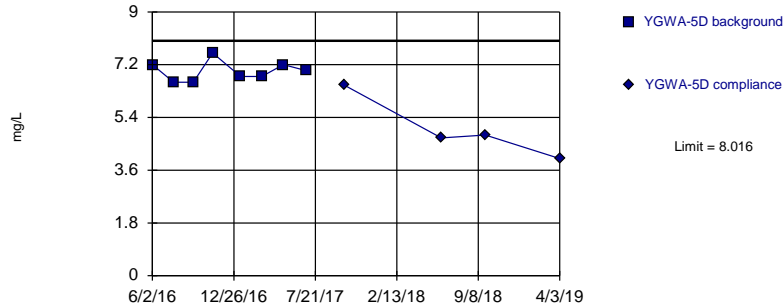


Background Data Summary: Mean=3.938, Std. Dev.=0.4069, n=8. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8976, critical = 0.749. Kappa = 3.014 (c=7, w=8, 1 of 2, event alpha = 0.05132). Report alpha = 0.0009403.

Constituent: Chloride Analysis Run 6/27/2019 5:27 PM View: Yates R6 - Intrawell
Plant Yates Client: Southern Company Data: Yates R6

Within Limit

Prediction Limit
Intrawell Parametric

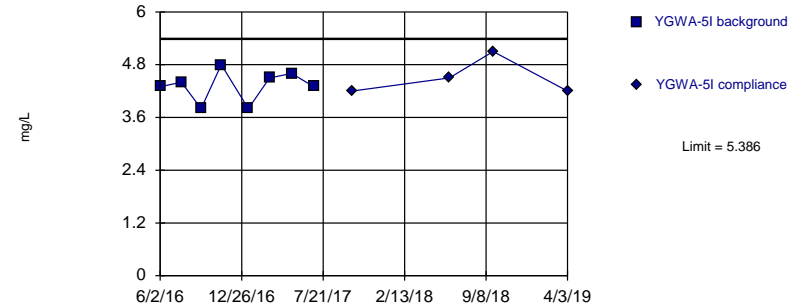


Background Data Summary: Mean=6.975, Std. Dev.=0.3454, n=8. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.919, critical = 0.749. Kappa = 3.014 (c=7, w=8, 1 of 2, event alpha = 0.05132). Report alpha = 0.0009403.

Constituent: Chloride Analysis Run 6/27/2019 5:27 PM View: Yates R6 - Intrawell
Plant Yates Client: Southern Company Data: Yates R6

Within Limit

Prediction Limit
Intrawell Parametric

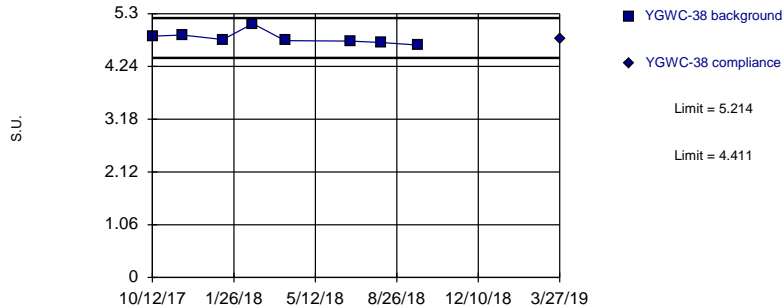


Background Data Summary: Mean=4.313, Std. Dev.=0.3563, n=8. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9089, critical = 0.749. Kappa = 3.014 (c=7, w=8, 1 of 2, event alpha = 0.05132). Report alpha = 0.0009403.

Constituent: Chloride Analysis Run 6/27/2019 5:27 PM View: Yates R6 - Intrawell
Plant Yates Client: Southern Company Data: Yates R6

Within Limits

Prediction Limit
Intrawell Parametric

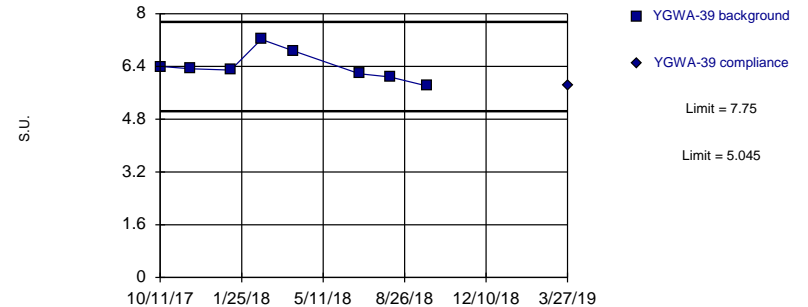


Background Data Summary: Mean=4.813, Std. Dev.=0.1331, n=8. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8587, critical = 0.749. Kappa = 3.014 (c=7, w=8, 1 of 2, event alpha = 0.05132). Report alpha = 0.0009403.

Constituent: pH Analysis Run 6/27/2019 5:27 PM View: Yates R6 - Intrawell
Plant Yates Client: Southern Company Data: Yates R6

Within Limits

Prediction Limit
Intrawell Parametric

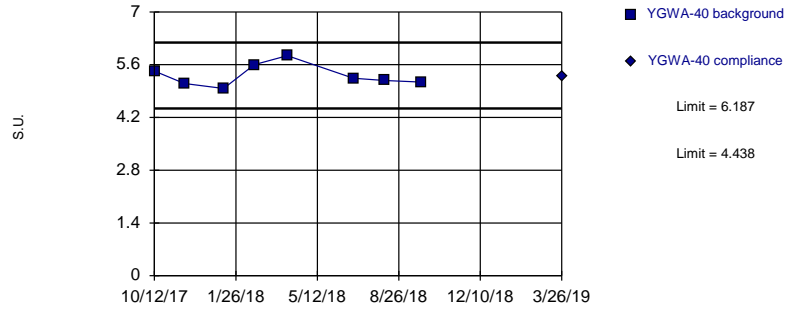


Background Data Summary: Mean=6.398, Std. Dev.=0.4487, n=8. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9285, critical = 0.749. Kappa = 3.014 (c=7, w=8, 1 of 2, event alpha = 0.05132). Report alpha = 0.0009403.

Constituent: pH Analysis Run 6/27/2019 5:27 PM View: Yates R6 - Intrawell
Plant Yates Client: Southern Company Data: Yates R6

Within Limits

Prediction Limit Intrawell Parametric

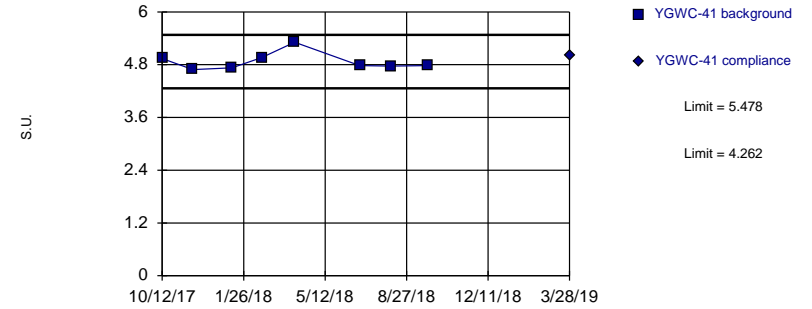


Background Data Summary: Mean=5.313, Std. Dev.=0.2903, n=8. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9251, critical = 0.749. Kappa = 3.014 (c=7, w=8, 1 of 2, event alpha = 0.05132). Report alpha = 0.0009403.

Constituent: pH Analysis Run 6/27/2019 5:27 PM View: Yates R6 - Intrawell
Plant Yates Client: Southern Company Data: Yates R6

Within Limits

Prediction Limit Intrawell Parametric

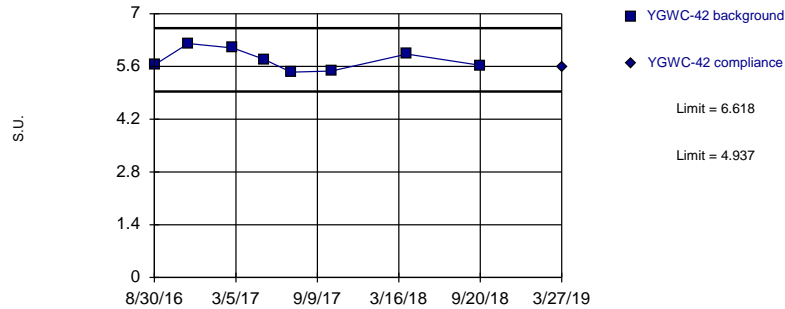


Background Data Summary: Mean=4.87, Std. Dev.=0.2017, n=8. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.801, critical = 0.749. Kappa = 3.014 (c=7, w=8, 1 of 2, event alpha = 0.05132). Report alpha = 0.0009403.

Constituent: pH Analysis Run 6/27/2019 5:27 PM View: Yates R6 - Intrawell
Plant Yates Client: Southern Company Data: Yates R6

Within Limits

Prediction Limit Intrawell Parametric

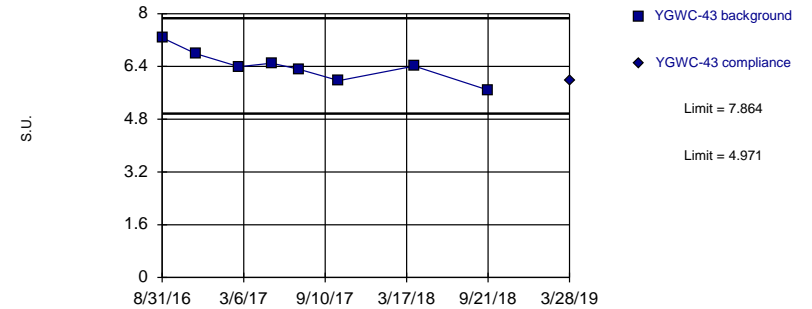


Background Data Summary: Mean=5.778, Std. Dev.=0.2789, n=8. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9353, critical = 0.749. Kappa = 3.014 (c=7, w=8, 1 of 2, event alpha = 0.05132). Report alpha = 0.0009403.

Constituent: pH Analysis Run 6/27/2019 5:27 PM View: Yates R6 - Intrawell
Plant Yates Client: Southern Company Data: Yates R6

Within Limits

Prediction Limit Intrawell Parametric

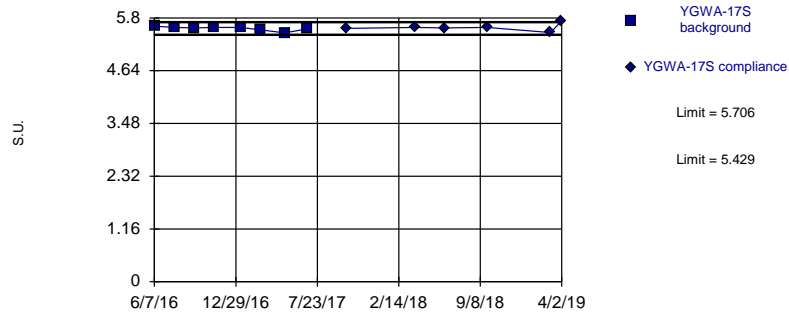


Background Data Summary: Mean=6.418, Std. Dev.=0.4799, n=8. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9664, critical = 0.749. Kappa = 3.014 (c=7, w=8, 1 of 2, event alpha = 0.05132). Report alpha = 0.0009403.

Constituent: pH Analysis Run 6/27/2019 5:27 PM View: Yates R6 - Intrawell
Plant Yates Client: Southern Company Data: Yates R6

Exceeds Limits

Prediction Limit
Intrawell Parametric

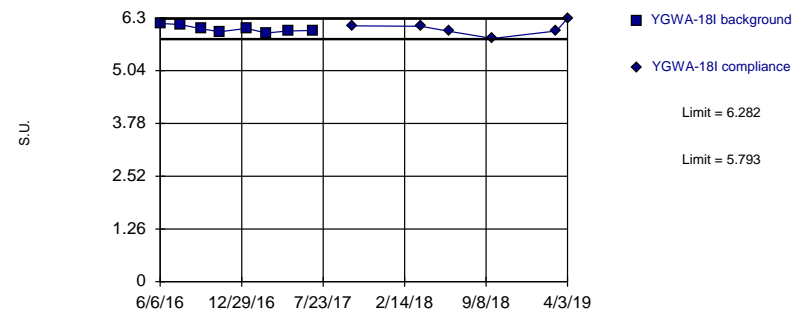


Background Data Summary: Mean=5.568, Std. Dev.=0.0459, n=8. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8564, critical = 0.749. Kappa = 3.014 (c=7, w=8, 1 of 2, event alpha = 0.05132). Report alpha = 0.0009403.

Constituent: pH Analysis Run 6/27/2019 5:27 PM View: Yates R6 - Intrawell
Plant Yates Client: Southern Company Data: Yates R6

Exceeds Limits

Prediction Limit
Intrawell Parametric

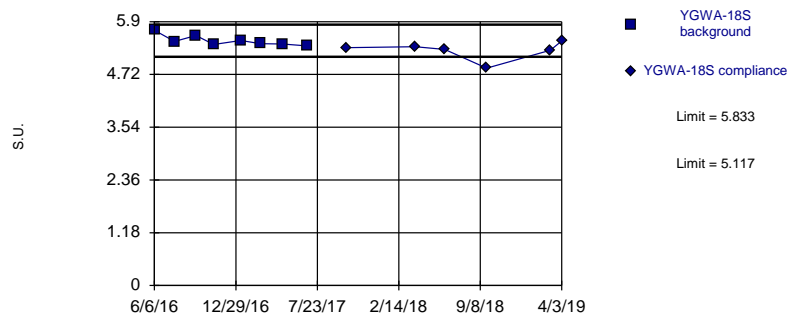


Background Data Summary: Mean=6.038, Std. Dev.=0.08102, n=8. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9207, critical = 0.749. Kappa = 3.014 (c=7, w=8, 1 of 2, event alpha = 0.05132). Report alpha = 0.0009403.

Constituent: pH Analysis Run 6/27/2019 5:27 PM View: Yates R6 - Intrawell
Plant Yates Client: Southern Company Data: Yates R6

Within Limits

Prediction Limit
Intrawell Parametric

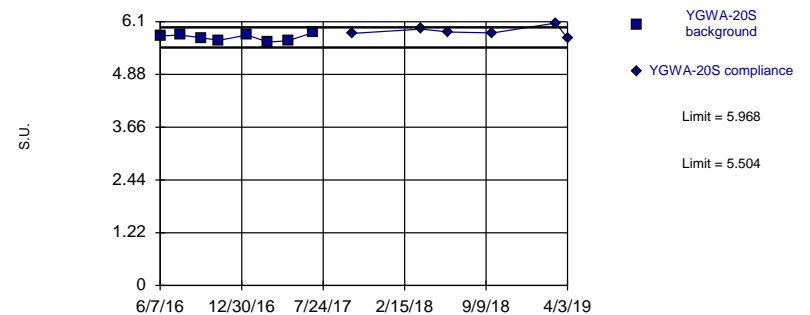


Background Data Summary: Mean=5.475, Std. Dev.=0.1189, n=8. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8604, critical = 0.749. Kappa = 3.014 (c=7, w=8, 1 of 2, event alpha = 0.05132). Report alpha = 0.0009403.

Constituent: pH Analysis Run 6/27/2019 5:27 PM View: Yates R6 - Intrawell
Plant Yates Client: Southern Company Data: Yates R6

Within Limits

Prediction Limit
Intrawell Parametric

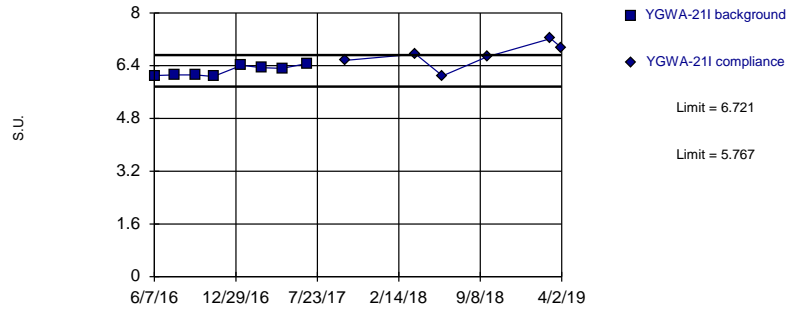


Background Data Summary: Mean=5.736, Std. Dev.=0.07689, n=8. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9419, critical = 0.749. Kappa = 3.014 (c=7, w=8, 1 of 2, event alpha = 0.05132). Report alpha = 0.0009403.

Constituent: pH Analysis Run 6/27/2019 5:27 PM View: Yates R6 - Intrawell
Plant Yates Client: Southern Company Data: Yates R6

Exceeds Limits

Prediction Limit
Intrawell Parametric

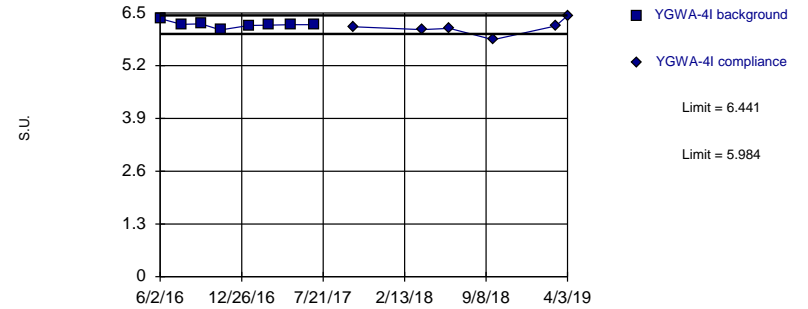


Background Data Summary: Mean=6.244, Std. Dev.=0.1583, n=8. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.866, critical = 0.749. Kappa = 3.014 (c=7, w=8, 1 of 2, event alpha = 0.05132). Report alpha = 0.0009403.

Constituent: pH Analysis Run 6/27/2019 5:27 PM View: Yates R6 - Intrawell
Plant Yates Client: Southern Company Data: Yates R6

Within Limits

Prediction Limit
Intrawell Parametric

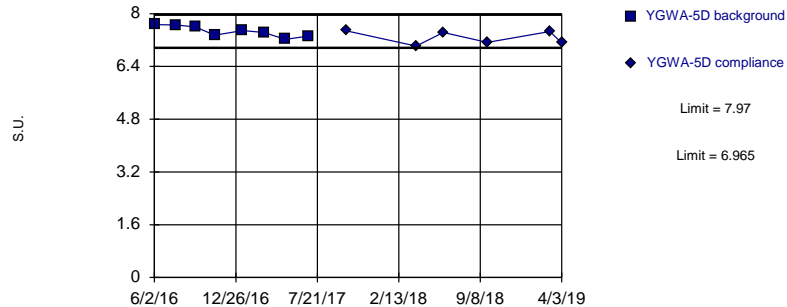


Background Data Summary: Mean=6.213, Std. Dev.=0.07592, n=8. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8537, critical = 0.749. Kappa = 3.014 (c=7, w=8, 1 of 2, event alpha = 0.05132). Report alpha = 0.0009403.

Constituent: pH Analysis Run 6/27/2019 5:27 PM View: Yates R6 - Intrawell
Plant Yates Client: Southern Company Data: Yates R6

Within Limits

Prediction Limit
Intrawell Parametric

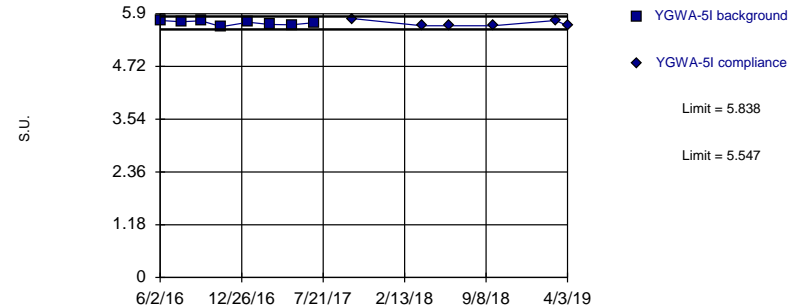


Background Data Summary: Mean=7.468, Std. Dev.=0.1666, n=8. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9375, critical = 0.749. Kappa = 3.014 (c=7, w=8, 1 of 2, event alpha = 0.05132). Report alpha = 0.0009403.

Constituent: pH Analysis Run 6/27/2019 5:27 PM View: Yates R6 - Intrawell
Plant Yates Client: Southern Company Data: Yates R6

Within Limits

Prediction Limit
Intrawell Parametric



Background Data Summary: Mean=5.693, Std. Dev.=0.04833, n=8. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9438, critical = 0.749. Kappa = 3.014 (c=7, w=8, 1 of 2, event alpha = 0.05132). Report alpha = 0.0009403.

Constituent: pH Analysis Run 6/27/2019 5:27 PM View: Yates R6 - Intrawell
Plant Yates Client: Southern Company Data: Yates R6

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 6/27/2019 5:32 PM View: Yates R6 - Intrawell
Plant Yates Client: Southern Company Data: Yates R6

	YGWC-38	YGWC-38
10/12/2017	6	
11/20/2017	6.9	
1/12/2018	6.6	
2/20/2018	6.2	
4/3/2018	6.9	
6/28/2018	6.4	
8/7/2018	5.5	
9/24/2018	5.9	
3/27/2019		6.2

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 6/27/2019 5:32 PM View: Yates R6 - Intrawell
Plant Yates Client: Southern Company Data: Yates R6

	YGWA-39	YGWA-39
10/11/2017	2.4	
11/20/2017	1.8	
1/11/2018	1.6	
2/20/2018	2	
4/3/2018	3.3	
6/28/2018	2.1	
8/7/2018	1.2	
9/24/2018	1.3	
3/27/2019		1.4

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 6/27/2019 5:32 PM View: Yates R6 - Intrawell
Plant Yates Client: Southern Company Data: Yates R6

	YGWA-40	YGWA-40
10/12/2017	3.8	
11/20/2017	4.4	
1/10/2018	4.6	
2/19/2018	4.6	
4/3/2018	5.9	
6/28/2018	5	
8/7/2018	4.3	
9/24/2018	4.9	
3/26/2019		4.4

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 6/27/2019 5:32 PM View: Yates R6 - Intrawell
Plant Yates Client: Southern Company Data: Yates R6

	YGWC-41	YGWC-41
10/12/2017	3.1	
11/21/2017	4.2	
1/11/2018	3.8	
2/19/2018	3.5	
4/3/2018	4.4	
6/27/2018	3.6	
8/7/2018	3.3	
9/24/2018	3.3	
3/28/2019		3.2

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 6/27/2019 5:32 PM View: Yates R6 - Intrawell
Plant Yates Client: Southern Company Data: Yates R6

	YGWC-42	YGWC-42
8/30/2016	4.4	
11/16/2016	4.7	
2/27/2017	4.7	
5/10/2017	4.4	
7/11/2017	4.7	
10/12/2017	4.3	
4/4/2018	3.7	
9/20/2018	3.8	
3/27/2019		3.9

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 6/27/2019 5:32 PM View: Yates R6 - Intrawell
Plant Yates Client: Southern Company Data: Yates R6

	YGWC-43	YGWC-43
8/31/2016	1.5	
11/16/2016	1.7	
2/24/2017	1.5	
5/10/2017	1.2	
7/11/2017	1.5	
10/12/2017	1.6	
4/4/2018	1.8	
9/20/2018	1.9	
3/28/2019		1.8

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 6/27/2019 5:32 PM View: Yates R6 - Intrawell
Plant Yates Client: Southern Company Data: Yates R6

	YGWA-17S	YGWA-17S
6/7/2016	4.5	
7/27/2016	4.5	
9/16/2016	4.5	
11/3/2016	5.4	
1/11/2017	4.7	
3/2/2017	4.8	
5/2/2017	4.6	
6/29/2017	4.5	
10/4/2017		4.7
6/11/2018		4.9
9/25/2018		5.6
4/2/2019		4.8

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 6/27/2019 5:32 PM View: Yates R6 - Intrawell
Plant Yates Client: Southern Company Data: Yates R6

	YGWA-18I	YGWA-18I
6/6/2016	6.8	
7/27/2016	6.7	
9/19/2016	7	
11/3/2016	7.5	
1/11/2017	6.5	
3/1/2017	6.9	
4/26/2017	7	
6/28/2017	7	
10/5/2017		7
6/7/2018		6.8
9/25/2018	7.9 (o)	
4/3/2019		6.9

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 6/27/2019 5:32 PM View: Yates R6 - Intrawell
Plant Yates Client: Southern Company Data: Yates R6

	YGWA-18S	YGWA-18S
6/6/2016	6.4	
7/27/2016	6.2	
9/16/2016	6.1	
11/3/2016	7.4	
1/11/2017	6.1	
3/1/2017	6	
4/26/2017	6.5	
6/28/2017	6.4	
10/4/2017		6.8
6/11/2018		6.8
9/25/2018		7.8
4/3/2019		6.3

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 6/27/2019 5:32 PM View: Yates R6 - Intrawell
Plant Yates Client: Southern Company Data: Yates R6

	YGWA-20S	YGWA-20S
6/7/2016	1.9	
7/27/2016	1.9	
9/19/2016	1.9	
11/2/2016	2.6	
1/13/2017	2.3	
3/6/2017	1.9	
4/26/2017	2	
6/29/2017	2.6	
10/4/2017		2.6
6/6/2018		2.7
9/25/2018		3.6
4/3/2019		3.1

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 6/27/2019 5:32 PM View: Yates R6 - Intrawell
Plant Yates Client: Southern Company Data: Yates R6

	YGWA-21I	YGWA-21I
6/7/2016	2.8	
7/28/2016	2.6	
9/19/2016	2.4	
11/3/2016	2.9	
1/13/2017	2.5	
3/6/2017	2.1	
4/26/2017	2.1	
6/29/2017	2.8	
10/3/2017		2.2
6/5/2018		1.7
9/25/2018		2.2
4/2/2019		2.5

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 6/27/2019 5:32 PM View: Yates R6 - Intrawell
Plant Yates Client: Southern Company Data: Yates R6

	YGWA-4I	YGWA-4I
6/2/2016	3.7	
7/26/2016	3.6	
9/14/2016	3.4	
11/2/2016	4.5	
1/13/2017	4.2	
3/6/2017	3.6	
5/1/2017	4.3	
6/29/2017	4.2	
10/5/2017		4.7
6/7/2018		4.4
9/26/2018		4.8
4/3/2019		4.3

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 6/27/2019 5:32 PM View: Yates R6 - Intrawell
Plant Yates Client: Southern Company Data: Yates R6

	YGWA-5D	YGWA-5D
6/2/2016	7.2	
7/26/2016	6.6	
9/14/2016	6.6	
11/2/2016	7.6	
1/12/2017	6.8	
3/7/2017	6.8	
5/1/2017	7.2	
6/27/2017	7	
10/3/2017		6.5
6/6/2018		4.7
9/26/2018		4.8
4/3/2019		4

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 6/27/2019 5:32 PM View: Yates R6 - Intrawell
Plant Yates Client: Southern Company Data: Yates R6

	YGWA-5I	YGWA-5I
6/2/2016	4.3	
7/26/2016	4.4	
9/14/2016	3.8	
11/4/2016	4.8	
1/12/2017	3.8	
3/7/2017	4.5	
5/2/2017	4.6	
6/27/2017	4.3	
10/3/2017		4.2
6/7/2018		4.5
9/26/2018		5.1
4/3/2019		4.2

Prediction Limit

Constituent: pH (S.U.) Analysis Run 6/27/2019 5:32 PM View: Yates R6 - IntraWell

Plant Yates Client: Southern Company Data: Yates R6

	YGWC-38	YGWC-38
10/12/2017	4.85	
11/20/2017	4.87	
1/12/2018	4.78	
2/20/2018	5.1	
4/3/2018	4.76	
6/28/2018	4.75	
8/7/2018	4.72	
9/24/2018	4.67	
3/27/2019		4.79

Prediction Limit

Constituent: pH (S.U.) Analysis Run 6/27/2019 5:32 PM View: Yates R6 - IntraWell
Plant Yates Client: Southern Company Data: Yates R6

	YGWA-39	YGWA-39
10/11/2017	6.4	
11/20/2017	6.33	
1/11/2018	6.29	
2/20/2018	7.22	
4/3/2018	6.87	
6/28/2018	6.18	
8/7/2018	6.08	
9/24/2018	5.81	
3/27/2019		5.84

Prediction Limit

Constituent: pH (S.U.) Analysis Run 6/27/2019 5:32 PM View: Yates R6 - IntraWell
Plant Yates Client: Southern Company Data: Yates R6

	YGWA-40	YGWA-40
10/12/2017	5.43	
11/20/2017	5.1	
1/10/2018	4.97	
2/19/2018	5.6	
4/3/2018	5.84	
6/28/2018	5.24	
8/7/2018	5.18	
9/24/2018	5.14	
3/26/2019		5.3

Prediction Limit

Constituent: pH (S.U.) Analysis Run 6/27/2019 5:32 PM View: Yates R6 - IntraWell

Plant Yates Client: Southern Company Data: Yates R6

	YGWC-41	YGWC-41
10/12/2017	4.94	
11/21/2017	4.69	
1/11/2018	4.73	
2/19/2018	4.96	
4/3/2018	5.31	
6/27/2018	4.78	
8/7/2018	4.77	
9/24/2018	4.78	
3/28/2019		5

Prediction Limit

Constituent: pH (S.U.) Analysis Run 6/27/2019 5:32 PM View: Yates R6 - IntraWell

Plant Yates Client: Southern Company Data: Yates R6

	YGWC-42	YGWC-42
8/30/2016	5.64	
11/16/2016	6.21	
2/27/2017	6.09	
5/10/2017	5.79	
7/11/2017	5.45	
10/12/2017	5.48	
4/4/2018	5.93	
9/20/2018	5.63	
3/27/2019		5.57

Prediction Limit

Constituent: pH (S.U.) Analysis Run 6/27/2019 5:32 PM View: Yates R6 - IntraWell

Plant Yates Client: Southern Company Data: Yates R6

	YGWC-43	YGWC-43
8/31/2016	7.27	
11/16/2016	6.79	
2/24/2017	6.39	
5/10/2017	6.5	
7/11/2017	6.32	
10/12/2017	5.97	
4/4/2018	6.41	
9/20/2018	5.69	
3/28/2019		5.96

Prediction Limit

Constituent: pH (S.U.) Analysis Run 6/27/2019 5:32 PM View: Yates R6 - IntraWell

Plant Yates Client: Southern Company Data: Yates R6

	YGWA-17S	YGWA-17S
6/7/2016	5.62	
7/27/2016	5.59	
9/16/2016	5.58	
11/3/2016	5.59	
1/11/2017	5.59	
3/2/2017	5.54	
5/2/2017	5.47	
6/29/2017	5.56	
10/4/2017		5.57
3/28/2018		5.59
6/11/2018		5.58
9/25/2018		5.59
3/5/2019		5.48
4/2/2019		5.74

Prediction Limit

Constituent: pH (S.U.) Analysis Run 6/27/2019 5:32 PM View: Yates R6 - IntraWell

Plant Yates Client: Southern Company Data: Yates R6

	YGWA-18I	YGWA-18I
6/6/2016	6.17	
7/27/2016	6.14	
9/19/2016	6.04	
11/3/2016	5.97	
1/11/2017	6.05	
3/1/2017	5.94	
4/26/2017	5.99	
6/28/2017	6	
10/5/2017		6.11
3/28/2018		6.1
6/7/2018		5.98
9/25/2018		5.81
3/6/2019		5.99
4/3/2019		6.29

Prediction Limit

Constituent: pH (S.U.) Analysis Run 6/27/2019 5:32 PM View: Yates R6 - IntraWell

Plant Yates Client: Southern Company Data: Yates R6

	YGWA-18S	YGWA-18S
6/6/2016	5.71	
7/27/2016	5.46	
9/19/2016	5.59	
11/3/2016	5.39	
1/11/2017	5.48	
3/1/2017	5.41	
4/26/2017	5.4	
6/28/2017	5.36	
10/4/2017		5.32
3/28/2018		5.34
6/11/2018		5.28
9/25/2018		4.86
3/5/2019		5.26
4/3/2019		5.47

Prediction Limit

Constituent: pH (S.U.) Analysis Run 6/27/2019 5:32 PM View: Yates R6 - Intravel

Plant Yates Client: Southern Company Data: Yates R6

	YGWA-20S	YGWA-20S
6/7/2016	5.77	
7/27/2016	5.79	
9/19/2016	5.73	
11/2/2016	5.67	
1/13/2017	5.79	
3/6/2017	5.63	
4/26/2017	5.66	
6/29/2017	5.85	
10/4/2017		5.83
3/29/2018		5.93
6/6/2018		5.86
9/25/2018		5.84
3/5/2019		6.07
4/3/2019		5.71

Prediction Limit

Constituent: pH (S.U.) Analysis Run 6/27/2019 5:32 PM View: Yates R6 - IntraWell
Plant Yates Client: Southern Company Data: Yates R6

	YGWA-21I	YGWA-21I
6/7/2016	6.1	
7/28/2016	6.12	
9/19/2016	6.12	
11/3/2016	6.07	
1/13/2017	6.41	
3/6/2017	6.34	
4/26/2017	6.32	
6/29/2017	6.47	
10/3/2017		6.56
3/29/2018		6.75
6/5/2018		6.09
9/25/2018		6.67
3/5/2019		7.22
4/2/2019		6.94

Prediction Limit

Constituent: pH (S.U.) Analysis Run 6/27/2019 5:32 PM View: Yates R6 - Intravel

Plant Yates Client: Southern Company Data: Yates R6

	YGWA-4I	YGWA-4I
6/2/2016	6.36	
7/26/2016	6.22	
9/14/2016	6.23	
11/2/2016	6.08	
1/13/2017	6.19	
3/6/2017	6.2	
5/1/2017	6.21	
6/29/2017	6.21	
10/5/2017		6.16
3/29/2018		6.09
6/7/2018		6.12
9/26/2018		5.84
3/4/2019		6.18
4/3/2019		6.43

Prediction Limit

Constituent: pH (S.U.) Analysis Run 6/27/2019 5:32 PM View: Yates R6 - Intravel

Plant Yates Client: Southern Company Data: Yates R6

	YGWA-5D	YGWA-5D
6/2/2016	7.67	
7/26/2016	7.66	
9/14/2016	7.6	
11/2/2016	7.35	
1/12/2017	7.49	
3/7/2017	7.43	
5/1/2017	7.22	
6/27/2017	7.32	
10/3/2017		7.48
3/29/2018		7.02
6/6/2018		7.43
9/26/2018		7.13
3/4/2019		7.46
4/3/2019		7.11

Prediction Limit

Constituent: pH (S.U.) Analysis Run 6/27/2019 5:32 PM View: Yates R6 - Intravel

Plant Yates Client: Southern Company Data: Yates R6

	YGWA-5I	YGWA-5I
6/2/2016	5.75	
7/26/2016	5.72	
9/14/2016	5.74	
11/4/2016	5.61	
1/12/2017	5.71	
3/7/2017	5.66	
5/2/2017	5.65	
6/27/2017	5.7	
10/3/2017		5.79
3/29/2018		5.63
6/7/2018		5.63
9/26/2018		5.63
3/4/2019		5.75
4/3/2019		5.63

Interwell Prediction Limit

Plant Yates Client: Southern Company Data: Yates R6 Printed 6/27/2019, 5:19 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Date</u>	<u>Observ.</u>	<u>Sig.</u>	<u>Bg N</u>	<u>%NDs</u>	<u>Trans...</u>	<u>Alpha</u>	<u>Method</u>
Boron (mg/L)	YGWC-38	0.16	n/a	3/27/2019	16.7	Yes	108	45.37	n/a	0.0001696	NP Inter (normality) 1 of 2
Boron (mg/L)	YGWC-41	0.16	n/a	3/28/2019	7.1	Yes	108	45.37	n/a	0.0001696	NP Inter (normality) 1 of 2
Boron (mg/L)	YGWC-42	0.16	n/a	3/27/2019	20.3	Yes	108	45.37	n/a	0.0001696	NP Inter (normality) 1 of 2
Boron (mg/L)	YGWC-43	0.16	n/a	3/28/2019	1.8	Yes	108	45.37	n/a	0.0001696	NP Inter (normality) 1 of 2
Calcium (mg/L)	YGWC-38	37	n/a	3/27/2019	155	Yes	114	0.8772	n/a	0.0001522	NP Inter (normality) 1 of 2
Calcium (mg/L)	YGWC-41	37	n/a	3/28/2019	26	No	114	0.8772	n/a	0.0001522	NP Inter (normality) 1 of 2
Calcium (mg/L)	YGWC-42	37	n/a	3/27/2019	109	Yes	114	0.8772	n/a	0.0001522	NP Inter (normality) 1 of 2
Calcium (mg/L)	YGWC-43	37	n/a	3/28/2019	8.9	No	114	0.8772	n/a	0.0001522	NP Inter (normality) 1 of 2
Fluoride (mg/L)	YGWC-38	0.32	n/a	3/27/2019	0.24	No	130	87.69	n/a	0.0001172	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	YGWC-41	0.32	n/a	3/28/2019	0.1	No	130	87.69	n/a	0.0001172	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	YGWC-42	0.32	n/a	3/27/2019	-0.3ND	No	130	87.69	n/a	0.0001172	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	YGWC-43	0.32	n/a	3/28/2019	0.078	No	130	87.69	n/a	0.0001172	NP Inter (NDs) 1 of 2
Sulfate (mg/L)	YGWC-38	71	n/a	3/27/2019	851	Yes	114	8.772	n/a	0.0001522	NP Inter (normality) 1 of 2
Sulfate (mg/L)	YGWC-41	71	n/a	3/28/2019	258	Yes	114	8.772	n/a	0.0001522	NP Inter (normality) 1 of 2
Sulfate (mg/L)	YGWC-42	71	n/a	3/27/2019	831	Yes	114	8.772	n/a	0.0001522	NP Inter (normality) 1 of 2
Sulfate (mg/L)	YGWC-43	71	n/a	3/28/2019	181	Yes	114	8.772	n/a	0.0001522	NP Inter (normality) 1 of 2
Total Dissolved Solids (m...	YGWC-38	186.8	n/a	3/27/2019	1190	Yes	114	0	sqrt(x)	0.0009403	Param Inter 1 of 2
Total Dissolved Solids (m...	YGWC-41	186.8	n/a	3/28/2019	372	Yes	114	0	sqrt(x)	0.0009403	Param Inter 1 of 2
Total Dissolved Solids (m...	YGWC-42	186.8	n/a	3/27/2019	1100	Yes	114	0	sqrt(x)	0.0009403	Param Inter 1 of 2
Total Dissolved Solids (m...	YGWC-43	186.8	n/a	3/28/2019	323	Yes	114	0	sqrt(x)	0.0009403	Param Inter 1 of 2

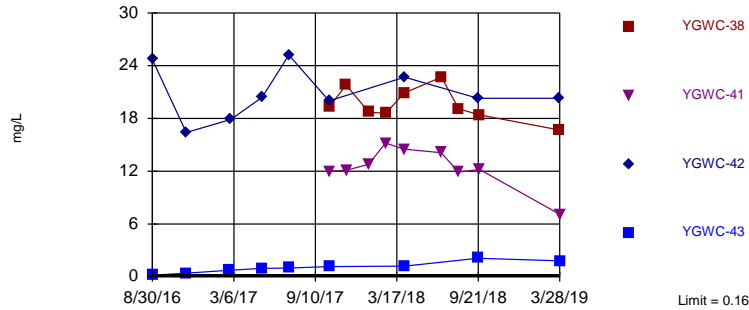
Interwell Prediction Limit

Plant Yates Client: Southern Company Data: Yates R6 Printed 6/27/2019, 5:19 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Date</u>	<u>Observ.</u>	<u>Sig.</u>	<u>Bg N</u>	<u>%NDs</u>	<u>Trans...</u>	<u>Alpha</u>	<u>Method</u>
Boron (mg/L)	YGWC-38	0.16	n/a	3/27/2019	16.7	Yes	108	45.37	n/a	0.0001696	NP Inter (normality) 1 of 2
Boron (mg/L)	YGWC-41	0.16	n/a	3/28/2019	7.1	Yes	108	45.37	n/a	0.0001696	NP Inter (normality) 1 of 2
Boron (mg/L)	YGWC-42	0.16	n/a	3/27/2019	20.3	Yes	108	45.37	n/a	0.0001696	NP Inter (normality) 1 of 2
Boron (mg/L)	YGWC-43	0.16	n/a	3/28/2019	1.8	Yes	108	45.37	n/a	0.0001696	NP Inter (normality) 1 of 2
Calcium (mg/L)	YGWC-38	37	n/a	3/27/2019	155	Yes	114	0.8772	n/a	0.0001522	NP Inter (normality) 1 of 2
Calcium (mg/L)	YGWC-42	37	n/a	3/27/2019	109	Yes	114	0.8772	n/a	0.0001522	NP Inter (normality) 1 of 2
Sulfate (mg/L)	YGWC-38	71	n/a	3/27/2019	851	Yes	114	8.772	n/a	0.0001522	NP Inter (normality) 1 of 2
Sulfate (mg/L)	YGWC-41	71	n/a	3/28/2019	258	Yes	114	8.772	n/a	0.0001522	NP Inter (normality) 1 of 2
Sulfate (mg/L)	YGWC-42	71	n/a	3/27/2019	831	Yes	114	8.772	n/a	0.0001522	NP Inter (normality) 1 of 2
Sulfate (mg/L)	YGWC-43	71	n/a	3/28/2019	181	Yes	114	8.772	n/a	0.0001522	NP Inter (normality) 1 of 2
Total Dissolved Solids (m...	YGWC-38	186.8	n/a	3/27/2019	1190	Yes	114	0	sqrt(x)	0.0009403	Param Inter 1 of 2
Total Dissolved Solids (m...	YGWC-41	186.8	n/a	3/28/2019	372	Yes	114	0	sqrt(x)	0.0009403	Param Inter 1 of 2
Total Dissolved Solids (m...	YGWC-42	186.8	n/a	3/27/2019	1100	Yes	114	0	sqrt(x)	0.0009403	Param Inter 1 of 2
Total Dissolved Solids (m...	YGWC-43	186.8	n/a	3/28/2019	323	Yes	114	0	sqrt(x)	0.0009403	Param Inter 1 of 2

Exceeds Limit: YGWC-38, YGWC-41, YGWC-42. YGWC-43

Prediction Limit
Interwell Non-parametric

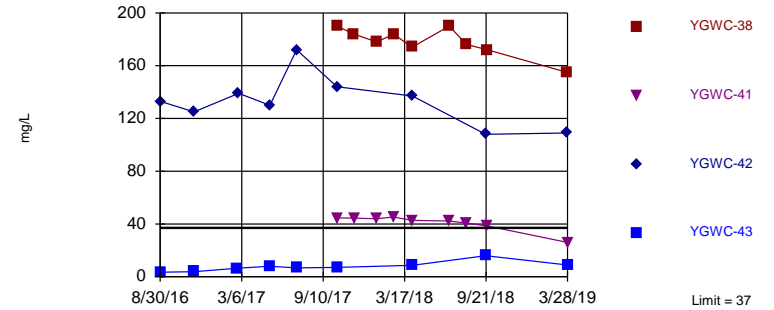


Non-parametric test used in lieu of parametric prediction limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 108 background values. 45.37% NDs. Annual per-constituent alpha = 0.00271. Individual comparison alpha = 0.0001696 (1 of 2). Comparing 4 points to limit. Assumes 4 future values. Seasonality was not detected with 95% confidence.

Constituent: Boron Analysis Run 6/27/2019 5:17 PM View: Yates R6 - Interwell
Plant Yates Client: Southern Company Data: Yates R6

Exceeds Limit: YGWC-38, YGWC-42

Prediction Limit
Interwell Non-parametric

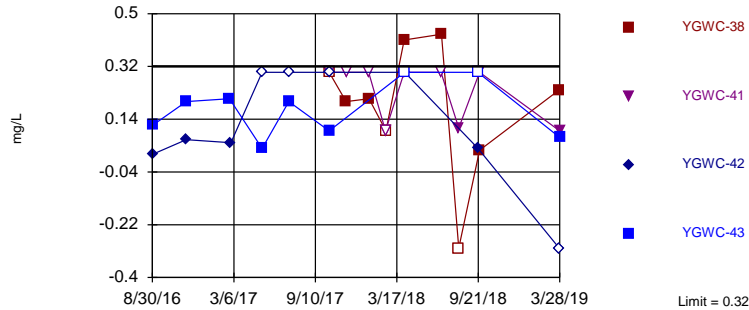


Non-parametric test used in lieu of parametric prediction limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 114 background values. 0.872% NDs. Annual per-constituent alpha = 0.002432. Individual comparison alpha = 0.0001522 (1 of 2). Comparing 4 points to limit. Assumes 4 future values. Seasonality was not detected with 95% confidence.

Constituent: Calcium Analysis Run 6/27/2019 5:17 PM View: Yates R6 - Interwell
Plant Yates Client: Southern Company Data: Yates R6

Within Limit

Prediction Limit
Interwell Non-parametric

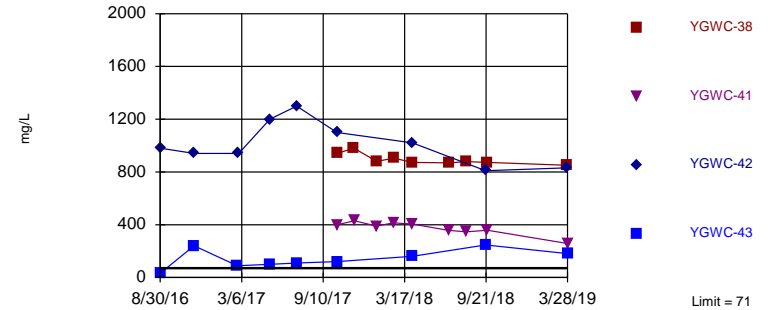


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 130 background values. 87.69% NDs. Annual per-constituent alpha = 0.001873. Individual comparison alpha = 0.0001172 (1 of 2). Comparing 4 points to limit. Assumes 4 future values. Seasonality was not detected with 95% confidence.

Constituent: Fluoride Analysis Run 6/27/2019 5:17 PM View: Yates R6 - Interwell
Plant Yates Client: Southern Company Data: Yates R6

Exceeds Limit: YGWC-38, YGWC-41, YGWC-42, YGWC-43

Prediction Limit
Interwell Non-parametric

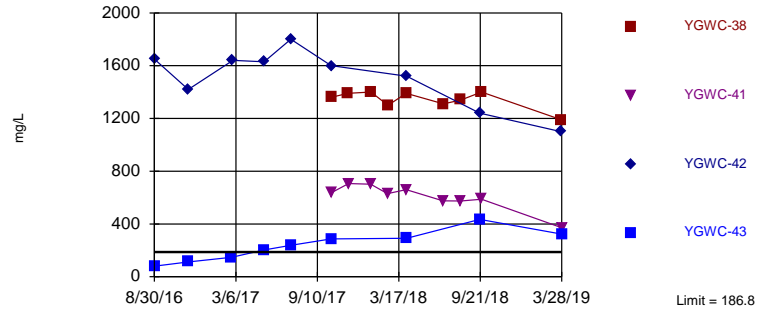


Non-parametric test used in lieu of parametric prediction limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 114 background values. 8.772% NDs. Annual per-constituent alpha = 0.002432. Individual comparison alpha = 0.0001522 (1 of 2). Comparing 4 points to limit. Assumes 4 future values. Seasonality was not detected with 95% confidence.

Constituent: Sulfate Analysis Run 6/27/2019 5:17 PM View: Yates R6 - Interwell
Plant Yates Client: Southern Company Data: Yates R6

Exceeds Limit: YGWC-38, YGWC-41,
YGWC-42, YGWC-43

Prediction Limit
Interwell Parametric



Background Data Summary (based on square root transformation): Mean=9.647, Std. Dev.=2.105, n=114.
Seasonality was not detected with 95% confidence. Normality test: Chi Squared @alpha = 0.01, calculated = 7.93,
critical = 14.07. Kappa = 1.91 (c=7, w=8, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual
comparison alpha = 0.0009403. Comparing 4 points to limit. Assumes 4 future values.

Constituent: Total Dissolved Solids Analysis Run 6/27/2019 5:17 PM View: Yates R6 - Interwell
Plant Yates Client: Southern Company Data: Yates R6

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 6/27/2019 5:19 PM View: Yates R6 - Interwell
Plant Yates Client: Southern Company Data: Yates R6

	YGWA-4I (bg)	YGWA-5I (bg)	YGWA-18I (bg)	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-5D (bg)	YGWA-18S (bg)	YGWA-17S (bg)	YGWC-42
8/7/2018									
9/20/2018									20.3
9/24/2018									
9/25/2018			0.0046 (J)	<0.04	0.0054 (J)		0.007 (J)	0.0096 (J)	
9/26/2018	0.005 (J)	0.0057 (J)				0.01 (J)			
3/26/2019									
3/27/2019									20.3
3/28/2019									
4/2/2019					0.011 (J)			0.0066 (J)	
4/3/2019	0.0055 (J)	0.0044 (J)	<0.04	<0.04		0.0076 (J)	0.0053 (J)		

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 6/27/2019 5:19 PM View: Yates R6 - Interwell
 Plant Yates Client: Southern Company Data: Yates R6

	YGWC-43	YGWA-39 (bg)	YGWC-38	YGWC-41	YGWA-40 (bg)
6/2/2016					
6/6/2016					
6/7/2016					
7/26/2016					
7/27/2016					
7/28/2016					
8/30/2016					
8/31/2016	0.169				
9/14/2016					
9/16/2016					
9/19/2016					
11/2/2016					
11/3/2016					
11/4/2016					
11/16/2016	0.406				
1/11/2017					
1/12/2017					
1/13/2017					
2/24/2017	0.725				
2/27/2017					
3/1/2017					
3/2/2017					
3/6/2017					
3/7/2017					
4/26/2017					
5/1/2017					
5/2/2017					
5/10/2017	0.955				
6/27/2017					
6/28/2017					
6/29/2017					
7/11/2017	0.994				
10/3/2017					
10/4/2017					
10/5/2017					
10/11/2017		0.0135 (J)			
10/12/2017	1.15		19.3	12	0.0401
11/20/2017		0.0251 (J)	21.8		0.156
11/21/2017				12.1	
1/10/2018					0.15
1/11/2018		0.0255 (J)		12.8	
1/12/2018			18.7		
2/19/2018				15.2	0.146
2/20/2018		<0.04	18.6		
4/3/2018		0.033 (J)	20.9	14.5	0.12
4/4/2018	1.2				
6/5/2018					
6/6/2018					
6/7/2018					
6/11/2018					
6/27/2018				14.1	
6/28/2018		0.053	22.7		0.16

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 6/27/2019 5:19 PM View: Yates R6 - Interwell
Plant Yates Client: Southern Company Data: Yates R6

	YGWC-43	YGWA-39 (bg)	YGWC-38	YGWC-41	YGWA-40 (bg)
8/7/2018		0.024 (J)	19.1	11.9	0.12
9/20/2018	2.1				
9/24/2018		0.028 (J)	18.4	12.2	0.099
9/25/2018					
9/26/2018					
3/26/2019					0.096
3/27/2019		0.017 (J)	16.7		
3/28/2019	1.8			7.1	
4/2/2019					
4/3/2019					

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 6/27/2019 5:19 PM View: Yates R6 - Interwell
Plant Yates Client: Southern Company Data: Yates R6

	YGWA-4I (bg)	YGWA-5I (bg)	YGWA-5D (bg)	YGWA-18I (bg)	YGWA-18S (bg)	YGWA-17S (bg)	YGWA-20S (bg)	YGWA-21I (bg)	YGWC-42
8/7/2018									
9/20/2018									108
9/24/2018									
9/25/2018				4.6	1	2.1	2.3	10.4 (J)	
9/26/2018	9.5 (J)	2.3	25.8						
3/26/2019									
3/27/2019									109
3/28/2019									
4/2/2019						2.5		8.8	
4/3/2019	8.4	2.8	24.7 (J)	5.3	1.2		2.9		

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 6/27/2019 5:19 PM View: Yates R6 - Interwell
 Plant Yates Client: Southern Company Data: Yates R6

	YGWC-43	YGWA-39 (bg)	YGWA-40 (bg)	YGWC-41	YGWC-38
6/2/2016					
6/6/2016					
6/7/2016					
7/26/2016					
7/27/2016					
7/28/2016					
8/30/2016					
8/31/2016	3.4				
9/14/2016					
9/16/2016					
9/19/2016					
11/2/2016					
11/3/2016					
11/4/2016					
11/16/2016	3.79				
1/11/2017					
1/12/2017					
1/13/2017					
2/24/2017	6.42				
2/27/2017					
3/1/2017					
3/2/2017					
3/6/2017					
3/7/2017					
4/26/2017					
5/1/2017					
5/2/2017					
5/10/2017	7.9				
6/27/2017					
6/28/2017					
6/29/2017					
7/11/2017	6.71				
10/3/2017					
10/4/2017					
10/5/2017					
10/11/2017		2.74			
10/12/2017	7.05		2.9	44.5	190
11/20/2017		1.81	10.4		184
11/21/2017				44.4	
1/10/2018			10.2		
1/11/2018		1.54		43.9	
1/12/2018					178
2/19/2018			<25	45.3	
2/20/2018		1.71			184
4/3/2018		1.4	6.3	42.7	174
4/4/2018	8.6				
6/5/2018					
6/6/2018					
6/7/2018					
6/11/2018					
6/27/2018				42.2	
6/28/2018		1.4	6.7		190

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 6/27/2019 5:19 PM View: Yates R6 - Interwell
Plant Yates Client: Southern Company Data: Yates R6

	YGWC-43	YGWA-39 (bg)	YGWA-40 (bg)	YGWC-41	YGWC-38
8/7/2018		1.2	6.3	40.7	176
9/20/2018	15.9 (J)				
9/24/2018		1.1	5.7	38.5	172
9/25/2018					
9/26/2018					
3/26/2019			5.6		
3/27/2019		1.5			155
3/28/2019	8.9			26	
4/2/2019					
4/3/2019					

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 6/27/2019 5:19 PM View: Yates R6 - Interwell

Plant Yates Client: Southern Company Data: Yates R6

	YGWA-4I (bg)	YGWA-5D (bg)	YGWA-5I (bg)	YGWA-18S (bg)	YGWA-18I (bg)	YGWA-21I (bg)	YGWA-17S (bg)	YGWA-20S (bg)	YGWC-42
6/2/2016	<0.2	0.11 (J)	<0.2						
6/6/2016				<0.2	<0.2				
6/7/2016						<0.2	<0.2	<0.2	
7/26/2016	<0.3	0.05 (J)	<0.3						
7/27/2016				<0.3	<0.3		<0.3	<0.3	
7/28/2016						0.02 (J)			
8/30/2016									0.02 (J)
8/31/2016									
9/14/2016	<0.3	0.04 (J)	<0.3						
9/16/2016				<0.3			<0.3		
9/19/2016					<0.3	0.02 (J)		<0.3	
11/2/2016	<0.3 (*)	<0.3 (*)						<0.3	
11/3/2016				<0.3	<0.3	<0.3 (*)	<0.3		
11/4/2016			<0.3						
11/16/2016									0.07 (J)
1/11/2017				<0.3	<0.3		<0.3		
1/12/2017		0.04 (J)	<0.3						
1/13/2017	<0.3					<0.3		<0.3	
2/24/2017									
2/27/2017									0.06 (J)
3/1/2017				<0.3 (*)	<0.3 (*)				
3/2/2017							<0.3 (*)		
3/6/2017	<0.3 (*)					<0.3 (*)		<0.3 (*)	
3/7/2017		<0.3 (*)	<0.3 (*)						
4/26/2017				<0.3	<0.3	0.04 (J)		<0.3	
5/1/2017	<0.3	<0.3 (*)							
5/2/2017			<0.3				<0.3		
5/10/2017									<0.3
6/27/2017		<0.3 (*)	<0.3						
6/28/2017				<0.3	<0.3				
6/29/2017	<0.3 (*)					<0.3 (*)	<0.3 (*)	<0.3 (*)	
7/11/2017									<0.3
10/3/2017		<0.3 (*)	<0.3			<0.3 (*)			
10/4/2017				<0.3			<0.3	<0.3	
10/5/2017	<0.3				<0.3				
10/11/2017									
10/12/2017									<0.3
11/20/2017									
11/21/2017									
1/10/2018									
1/11/2018									
1/12/2018									
2/19/2018									
2/20/2018									
3/28/2018				<0.3	<0.3		<0.3		
3/29/2018	<0.3	<0.3	<0.3			<0.3		<0.3	
4/3/2018									
4/4/2018									<0.3
6/5/2018						0.13 (J)			
6/6/2018		0.15 (J)						<0.3	
6/7/2018	<0.3		<0.3		<0.3				
6/11/2018				<0.3			<0.3		

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 6/27/2019 5:19 PM View: Yates R6 - Interwell
Plant Yates Client: Southern Company Data: Yates R6

	YGWA-4I (bg)	YGWA-5D (bg)	YGWA-5I (bg)	YGWA-18S (bg)	YGWA-18I (bg)	YGWA-21I (bg)	YGWA-17S (bg)	YGWA-20S (bg)	YGWC-42
6/27/2018									
6/28/2018									
8/7/2018									
9/20/2018									0.041 (J)
9/24/2018									
9/25/2018				<0.3	<0.3	0 (J)	<0.3	<0.3	
9/26/2018	<0.3	<0.3	<0.3						
3/4/2019	<-0.3	0.19 (J)	<-0.3						
3/5/2019				<-0.3		0.32	<-0.3	<-0.3	
3/6/2019					<-0.3				
3/26/2019									
3/27/2019									<-0.3
3/28/2019									
4/2/2019						0.12 (J)	<0.3		
4/3/2019	<0.3	0.047 (J)	<0.3	<0.3	<0.3			<0.3	

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 6/27/2019 5:19 PM View: Yates R6 - Interwell
 Plant Yates Client: Southern Company Data: Yates R6

	YGWC-43	YGWA-39 (bg)	YGWC-41	YGWA-40 (bg)	YGWC-38
6/2/2016					
6/6/2016					
6/7/2016					
7/26/2016					
7/27/2016					
7/28/2016					
8/30/2016					
8/31/2016	0.12 (J)				
9/14/2016					
9/16/2016					
9/19/2016					
11/2/2016					
11/3/2016					
11/4/2016					
11/16/2016	0.2 (J)				
1/11/2017					
1/12/2017					
1/13/2017					
2/24/2017	0.21 (J)				
2/27/2017					
3/1/2017					
3/2/2017					
3/6/2017					
3/7/2017					
4/26/2017					
5/1/2017					
5/2/2017					
5/10/2017	0.04 (J)				
6/27/2017					
6/28/2017					
6/29/2017					
7/11/2017	0.2 (J)				
10/3/2017					
10/4/2017					
10/5/2017					
10/11/2017		<0.3			
10/12/2017	0.1 (J)		<0.3	<0.3	<0.3
11/20/2017		<0.3		<0.3	0.2 (J)
11/21/2017			<0.3		
1/10/2018				<0.3	
1/11/2018		<0.3	<0.3		
1/12/2018					0.21 (J)
2/19/2018			<0.1	<0.1	
2/20/2018		0.23			<0.1
3/28/2018					
3/29/2018					
4/3/2018		<0.3	<0.3	<0.3	0.41
4/4/2018	<0.3				
6/5/2018					
6/6/2018					
6/7/2018					
6/11/2018					

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 6/27/2019 5:19 PM View: Yates R6 - Interwell
Plant Yates Client: Southern Company Data: Yates R6

	YGWC-43	YGWA-39 (bg)	YGWC-41	YGWA-40 (bg)	YGWC-38
6/27/2018			<0.3		
6/28/2018		<0.3		<0.3	0.43
8/7/2018		0.048 (J)	0.11 (J)	<-0.3	<-0.3
9/20/2018	<0.3				
9/24/2018		<0.3	<0.3	<0.3	0.034 (J)
9/25/2018					
9/26/2018					
3/4/2019					
3/5/2019					
3/6/2019					
3/26/2019				<-0.3	
3/27/2019		<-0.3			0.24 (J)
3/28/2019	0.078 (J)		0.1 (J)		
4/2/2019					
4/3/2019					

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 6/27/2019 5:19 PM View: Yates R6 - Interwell
Plant Yates Client: Southern Company Data: Yates R6

	YGWA-4I (bg)	YGWA-5I (bg)	YGWA-5D (bg)	YGWA-18I (bg)	YGWA-18S (bg)	YGWA-17S (bg)	YGWA-20S (bg)	YGWA-21I (bg)	YGWC-42
8/7/2018									
9/20/2018									810
9/24/2018									
9/25/2018				1	1.5	6.1	0.13 (J)	7	
9/26/2018	10.2	2.3	7.9						
3/26/2019									
3/27/2019									831
3/28/2019									
4/2/2019						5.1		3.8	
4/3/2019	8.5	2.1	7	0.82 (J)	1.3		0.12 (J)		

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 6/27/2019 5:19 PM View: Yates R6 - Interwell
 Plant Yates Client: Southern Company Data: Yates R6

	YGWC-43	YGWA-39 (bg)	YGWA-40 (bg)	YGWC-41	YGWC-38
6/2/2016					
6/6/2016					
6/7/2016					
7/26/2016					
7/27/2016					
7/28/2016					
8/30/2016					
8/31/2016	34				
9/14/2016					
9/16/2016					
9/19/2016					
11/2/2016					
11/3/2016					
11/4/2016					
11/16/2016	240				
1/11/2017					
1/12/2017					
1/13/2017					
2/24/2017	89				
2/27/2017					
3/1/2017					
3/2/2017					
3/6/2017					
3/7/2017					
4/26/2017					
5/1/2017					
5/2/2017					
5/10/2017	100				
6/27/2017					
6/28/2017					
6/29/2017					
7/11/2017	110				
10/3/2017					
10/4/2017					
10/5/2017					
10/11/2017		20			
10/12/2017	120		17	400	940
11/20/2017		24	71		980
11/21/2017				430	
1/10/2018			66		
1/11/2018		23		390	
1/12/2018					880
2/19/2018			57.2	414	
2/20/2018		20.6			905
4/3/2018		24.5	49.4	406	872
4/4/2018	160				
6/5/2018					
6/6/2018					
6/7/2018					
6/11/2018					
6/27/2018				357	
6/28/2018		22	43.8		869

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 6/27/2019 5:19 PM View: Yates R6 - Interwell
Plant Yates Client: Southern Company Data: Yates R6

	YGWC-43	YGWA-39 (bg)	YGWA-40 (bg)	YGWC-41	YGWC-38
8/7/2018		20.7	40.5	346	879
9/20/2018	247				
9/24/2018		21.2	39.7	358	872
9/25/2018					
9/26/2018					
3/26/2019			34.3		
3/27/2019		17.7			851
3/28/2019	181			258	
4/2/2019					
4/3/2019					

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 6/27/2019 5:19 PM View: Yates R6 - Interwell

Plant Yates Client: Southern Company Data: Yates R6

	YGWC-38	YGWA-39 (bg)	YGWA-40 (bg)	YGWC-41	YGWC-42	YGWC-43	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)
6/2/2016									
6/6/2016								120	58
6/7/2016							28		
7/26/2016									
7/27/2016							74	94	35
7/28/2016									
8/30/2016					1650				
8/31/2016						80			
9/14/2016									
9/16/2016							67		35
9/19/2016								92	
11/2/2016									
11/3/2016							41	104	48
11/4/2016									
11/16/2016					1420	112			
1/11/2017							104	133	95
1/12/2017									
1/13/2017									
2/24/2017						147			
2/27/2017					1640				
3/1/2017								119	79
3/2/2017							77		
3/6/2017									
3/7/2017									
4/26/2017								162	36
5/1/2017									
5/2/2017							142		
5/10/2017					1630	203			
6/27/2017									
6/28/2017								98	45
6/29/2017							53		
7/11/2017					1800	238			
10/3/2017									
10/4/2017							61		45
10/5/2017								104	
10/11/2017		68							
10/12/2017	1360		74	636	1600	287			
11/20/2017	1390	139	179						
11/21/2017				706					
1/10/2018			140						
1/11/2018		153		701					
1/12/2018	1400								
2/19/2018			119	630					
2/20/2018	1300	87							
4/3/2018	1390	85	106	660					
4/4/2018					1520	292			
6/5/2018									
6/6/2018									
6/7/2018								68	
6/11/2018							70		74
6/27/2018				575					
6/28/2018	1310	88	112						

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 6/27/2019 5:19 PM View: Yates R6 - Interwell

Plant Yates Client: Southern Company Data: Yates R6

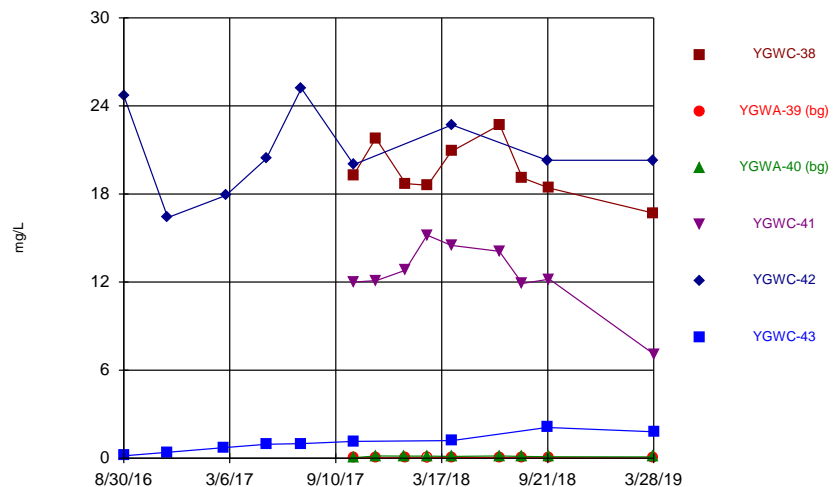
	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-4I (bg)	YGWA-5D (bg)	YGWA-5I (bg)
6/2/2016			96	160	66
6/6/2016					
6/7/2016	38	60			
7/26/2016			92	177	78
7/27/2016	74				
7/28/2016		81			
8/30/2016					
8/31/2016					
9/14/2016			102	187	73
9/16/2016					
9/19/2016	45	68			
11/2/2016	53		115	181	
11/3/2016		61			
11/4/2016					75
11/16/2016					
1/11/2017					
1/12/2017				202	86
1/13/2017	46	76	67		
2/24/2017					
2/27/2017					
3/1/2017					
3/2/2017					
3/6/2017	164	167	159		
3/7/2017				257	108
4/26/2017	34	50			
5/1/2017			107	165	
5/2/2017					103
5/10/2017					
6/27/2017				189	73
6/28/2017					
6/29/2017	68	94	79		
7/11/2017					
10/3/2017		149		170	89
10/4/2017	54				
10/5/2017			95		
10/11/2017					
10/12/2017					
11/20/2017					
11/21/2017					
1/10/2018					
1/11/2018					
1/12/2018					
2/19/2018					
2/20/2018					
4/3/2018					
4/4/2018					
6/5/2018		109			
6/6/2018	79			151	
6/7/2018			90		142
6/11/2018					
6/27/2018					
6/28/2018					

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 6/27/2019 5:19 PM View: Yates R6 - Interwell
Plant Yates Client: Southern Company Data: Yates R6

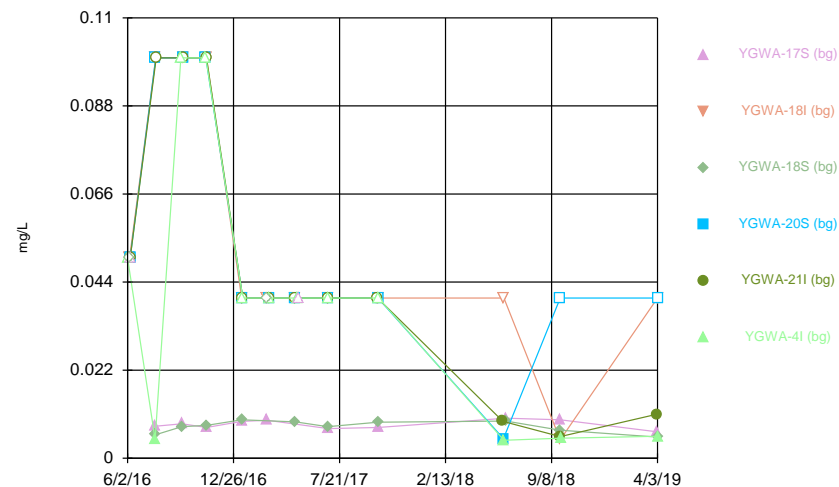
	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-4I (bg)	YGWA-5D (bg)	YGWA-5I (bg)
8/7/2018					
9/20/2018					
9/24/2018					
9/25/2018	73	122			
9/26/2018			116	144	86
3/26/2019					
3/27/2019					
3/28/2019					
4/2/2019		134			
4/3/2019	57		111	142	83

Time Series



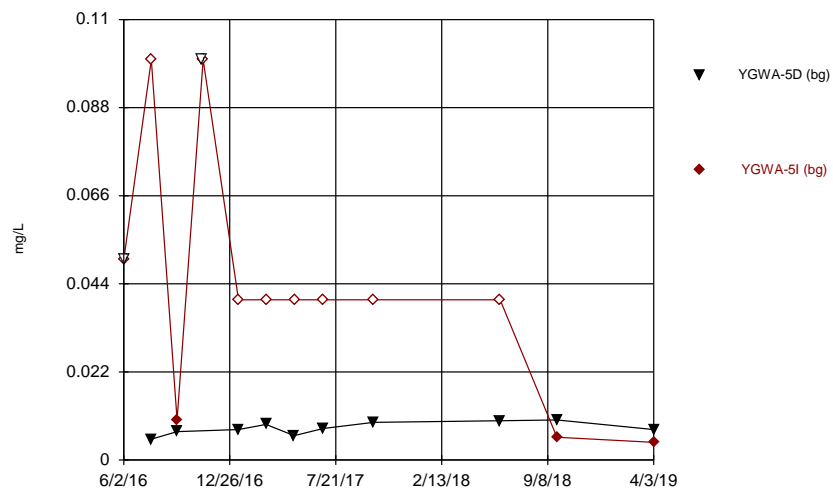
Constituent: Boron Analysis Run 6/27/2019 4:57 PM View: R6 - Time Series
Plant Yates Client: Southern Company Data: Yates R6

Time Series



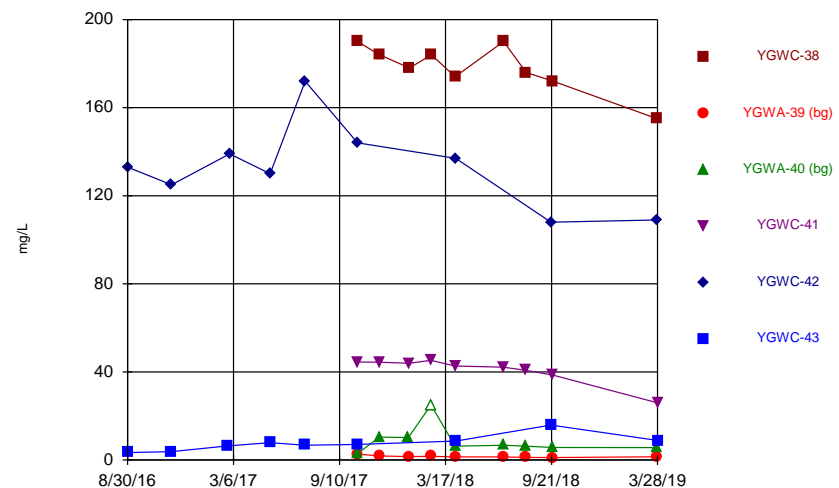
Constituent: Boron Analysis Run 6/27/2019 4:57 PM View: R6 - Time Series
Plant Yates Client: Southern Company Data: Yates R6

Time Series



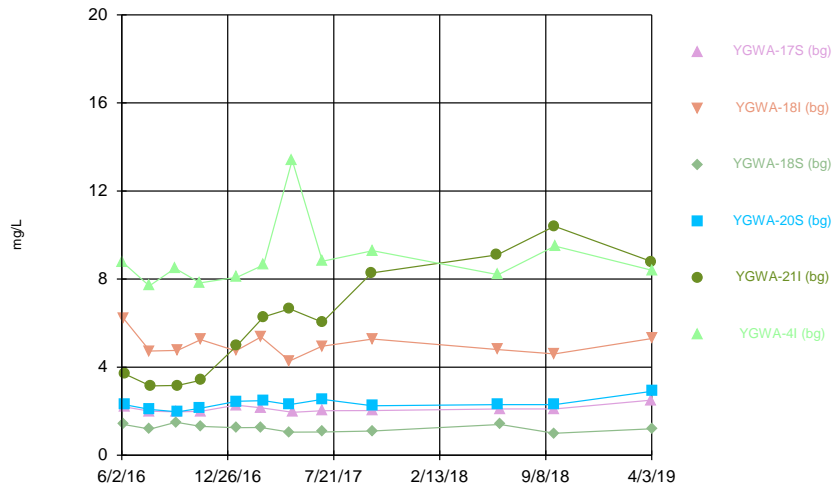
Constituent: Boron Analysis Run 6/27/2019 4:57 PM View: R6 - Time Series
Plant Yates Client: Southern Company Data: Yates R6

Time Series



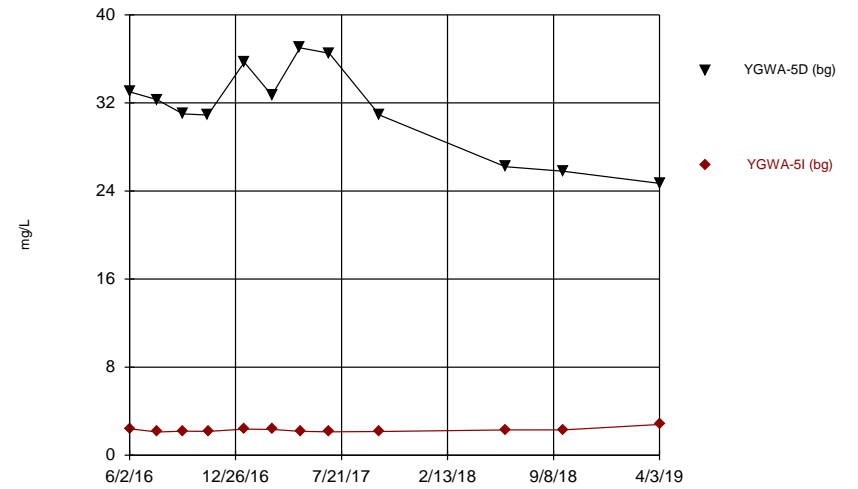
Constituent: Calcium Analysis Run 6/27/2019 4:57 PM View: R6 - Time Series
Plant Yates Client: Southern Company Data: Yates R6

Time Series



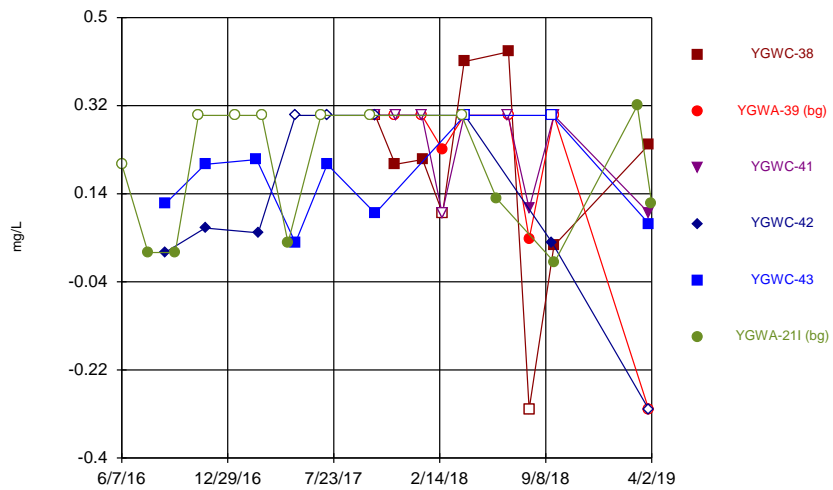
Constituent: Calcium Analysis Run 6/27/2019 4:57 PM View: R6 - Time Series
 Plant Yates Client: Southern Company Data: Yates R6

Time Series



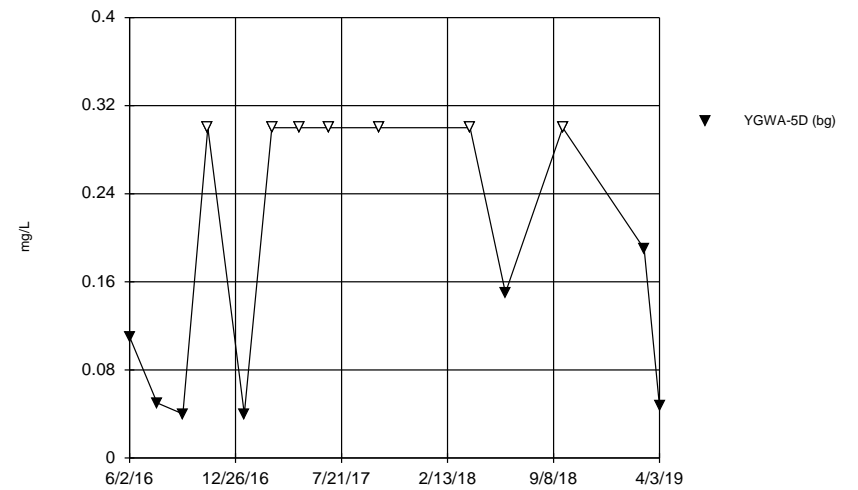
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 Plant Yates Client: Southern Company Data: Yates R6

Time Series



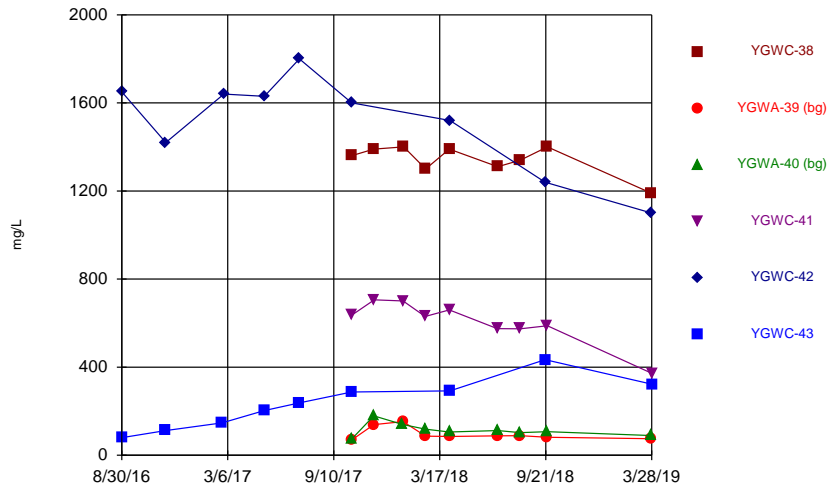
Constituent: Fluoride Analysis Run 6/27/2019 4:57 PM View: R6 - Time Series
 Plant Yates Client: Southern Company Data: Yates R6

Time Series



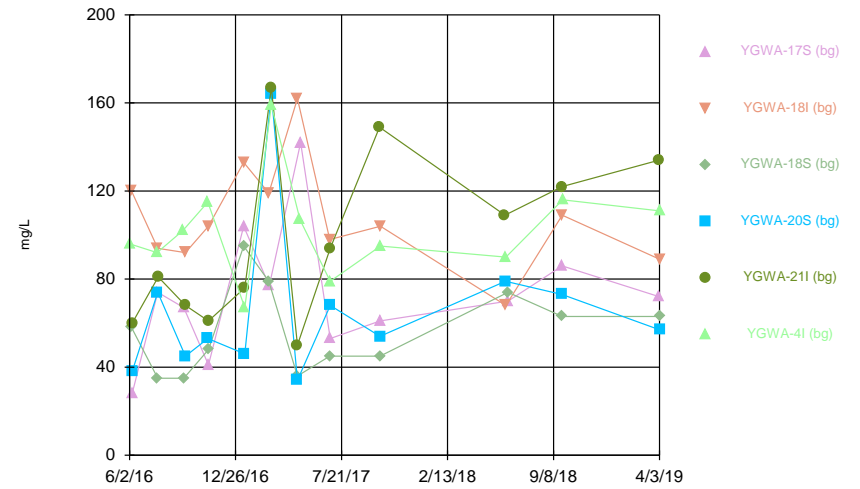
Constituent: Fluoride Analysis Run 6/27/2019 4:57 PM View: R6 - Time Series
 Plant Yates Client: Southern Company Data: Yates R6

Time Series



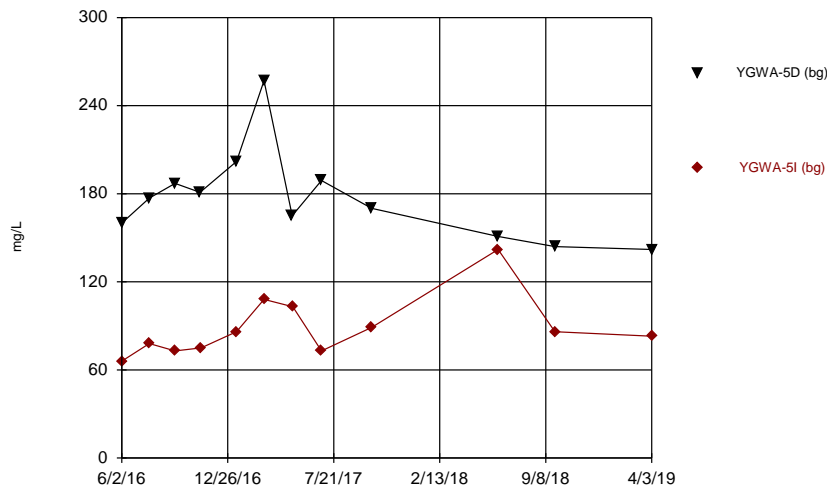
Constituent: Total Dissolved Solids Analysis Run 6/27/2019 4:57 PM View: R6 - Time Series
 Plant Yates Client: Southern Company Data: Yates R6

Time Series



Constituent: Total Dissolved Solids Analysis Run 6/27/2019 4:57 PM View: R6 - Time Series
 Plant Yates Client: Southern Company Data: Yates R6

Time Series



Constituent: Total Dissolved Solids Analysis Run 6/27/2019 4:57 PM View: R6 - Time Series
 Plant Yates Client: Southern Company Data: Yates R6