

**Georgia Power Company
Plant Yates – AP-3, A, B, and B’
Newnan, Georgia
Coweta County**

**2019 FIRST SEMIANNUAL
GROUNDWATER MONITORING AND
CORRECTIVE ACTION REPORT**



**ATLANTIC COAST
CONSULTING, INC.**

PROFESSIONAL CERTIFICATION

This *2019 First Semiannual Groundwater Monitoring and Corrective Action Report*, Georgia Power Company - Plant Yates AP-3, A, B, and B'. has been prepared in compliance with the United States Environmental Protection Agency coal combustion residual rule [40 Code of Federal Regulations (CFR) 257 Subpart D] and the Georgia Environmental Protection Division Rules for Solid Waste Management 391-3-4-.10 by a qualified groundwater scientist or engineer with Atlantic Coast Consulting, Inc.

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1.0 INTRODUCTION

In accordance with the United States Environmental Protection Agency (US EPA) Coal Combustion Residuals (CCR) Rule 40 Code of Federal Regulations (CFR) 257 Subpart D and the Georgia Environmental Protection Division (GA EPD) Rules of Solid Waste Management 391-3-4-.10, Atlantic Coast Consulting, Inc. (ACC) has prepared this Semiannual Groundwater Monitoring Report to document groundwater monitoring activities at Georgia Power Company's (GPC's) Plant Yates AP-3, A, B, and B' (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.

AP-A ceased receiving waste prior to the effective date of the USEPA CCR rule promulgated in April 2015. A notification of intent to initiate closure of the inactive CCR surface impoundment was certified on December 7, 2015 and posted to GPC's website. Therefore, groundwater monitoring and reporting for AP-A are being completed in accordance with the alternate schedule in § 257.100(e)(5) of the revised USEPA CCR rule (August 5, 2016).

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).

A permit application package for AP-3, A, B, and B' was submitted to GA EPD in November 2018 and is currently under review. CCR units AP-3, A, B, and B' are located adjacent to each other. Due to the configuration of the units and overall groundwater flow direction, a combined groundwater monitoring network for the four CCR units was selected in the permit packages. Groundwater monitoring in the AP-3, A, B, and B' multi-unit network have been monitored in accordance with the requirements of 40 CFR § 257.90 through § 257.95 and reported as required.

Reports for Ash Ponds 3, B and B' were previously completed per 40 CFR § 257.90(e), and those sites have been placed in assessment monitoring. Background monitoring data and the initial detection monitoring analysis for AP-A are subject to the timelines promulgated under § 257.100.

An Assessment of Corrective Measures (ACM) Report was completed in June 2019 per 40 CFR § 257.96 to address a statistically significant level (SSL) of beryllium in samples from groundwater monitoring network well YGWC-33S. Data from YAMW-1 and PZ-35 confirm that the respective vertical and lateral extent of beryllium concentrations above the groundwater protection standard (GWPS) is limited to the immediate vicinity of YGWC-33S.

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.

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 is typically in a range 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 multi-unit groundwater monitoring system was installed within the uppermost aquifer at the Site. The multi-unit monitoring system is designed to monitor groundwater passing the waste boundary of the CCR Units 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, and Table 1B, Non-Network Well Summary).

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 certified monitoring system shown on Figure 2.

Pursuant to § 257.90(e)(3), Table 2A, Groundwater Sampling Event Summary for the First Half of 2019, presents a summary of groundwater sampling events completed at the Site during the first half of 2019. Groundwater events were conducted at the Site during March 2019 and April 2019. During the March event, groundwater samples were collected and analyzed for Appendix IV constituents to meet the requirements of § 257.95(b). During the April semiannual sampling event, groundwater samples were collected for both Appendix III and the Appendix IV constituents detected during the March event at each monitoring well. Background monitoring events and monitoring completed during the first half of 2019 for AP-A are summarized in Table 2B, AP-A Groundwater Sampling Event Summary. Results of sampling activities conducted during background for AP-A and in the first half of 2019 for the entire site are presented in Appendix A, Laboratory Analytical and Field Sampling Reports.

2.1 Monitoring Well Installation and Maintenance

Monitoring well-related activities were limited to the following: visual inspection of well conditions prior to sampling, recording the site conditions, and performing exterior maintenance to provide safe access for sampling.

2.2 Detection Monitoring

The groundwater monitoring network certification was revised to also include AP-A and well YGWC-49 in the multi-unit system on April 17, 2019. AP-A is an inactive surface impoundment subject to the revised requirements of 40 CFR §257.100 and was added to the multi-unit system in accordance with the timeline provided by 40 CFR §257.100(e)(5)(i).

In accordance with §257.94(b), a detection monitoring program was implemented by collecting eight (8) background samples. In addition, a ninth round of groundwater samples were collected as the initial detection monitoring event.

2.2.1 Background Monitoring

Eight (8) independent samples were collected from YGWC-49 and analyzed for the constituents listed in Appendix III and IV. Tables summarizing the background sampling results are included in Appendix B, AP-A Data Summary Tables. Pursuant to §257.90(e)(3), data reports for each sampling event are included in Appendix A.

2.2.2 Initial Detection Monitoring

Following completion of the eight independent sampling events, a groundwater sample was collected on March 28, 2019 and analyzed for Appendix III constituents as part of the first semiannual detection monitoring event. Pursuant to §257.90(e)(3), the data report for the sampling event is included in Appendix A and a summary table provided in Appendix B.

2.3 Assessment Monitoring

Based on results of the *2017 Annual Groundwater and Corrective Action Monitoring Report*, an assessment monitoring program was implemented for AP-3, B, and B' on January 15, 2018. A notice of assessment monitoring was placed in the operating record on May 15, 2018.

Monitoring wells were sampled for Appendix IV parameters in March 2019 pursuant to 40 CFR § 257.95(b). The first semiannual assessment monitoring event occurred in April 2019, when monitoring wells were sampled for Appendix III and Appendix IV parameters detected during the March event. A summary of groundwater sampling events completed in the first half of 2019 is provided in Table 2.

2.4 Assessment of Corrective Measures

Based on assessment monitoring results presented in the *2018 Annual Groundwater and Corrective Action Monitoring Report*, an ACM was implemented on January 13, 2019 in accordance with 40 CFR § 257.96 and posted to the Operating Record on June 12, 2019.

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 Tables 3A and 3B, Summary of Groundwater Elevations – February 2019 and March 2019, respectively. Groundwater elevation data was used to develop a potentiometric surface elevation contour map (Figure 3, March 2019 Water Table Contour Map). The general direction of groundwater flow across the site is towards the north-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 0.006 to 0.20 feet per day or 2.3 to 87 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, and dissolved oxygen) during well purging to verify stabilization 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

Except for the monitoring well associated with AP-A (YGWC-49) groundwater samples were collected during two groundwater monitoring events in the first half of 2019. During the March 2019 sampling event, wells were sampled and analyzed for Appendix IV monitoring parameters pursuant to 40 CFR § 257.95(b). Groundwater samples collected during the subsequent semiannual event in April 2019 were analyzed for Appendix III and those Appendix IV parameters detected above the laboratory method detection limit (MDL) during the March event in accordance with 40 CFR § 257.95(d). Parameters not detected in the March event above the laboratory MDL included: chromium, mercury, and molybdenum. YGWC-49 was sampled for Appendix III parameters on March 28, 2019. Analytical methods used for groundwater monitoring parameters are provided in laboratory reports in Appendix A.

Analytical data collected in the March and April 2019 monitoring events are summarized in Tables 5A and 5B, Summary of Groundwater Analytical Data – March 2019 and April 2019, respectively.

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 and IV groundwater monitoring data was performed on samples collected from the certified groundwater monitoring network pursuant to 40 CFR § 257.93 and following the appropriate PE-certified method. The statistical method used at the site was developed by MacStat Consulting, Ltd, 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. Subsequent detection monitoring results were compared to the statistical limits to determine if concentrations were statistically different from background.

4.1 Statistical Methods

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. Although Assessment Monitoring has been implemented for the AP-3, A, B, and B' network (except for AP-A), statistical evaluation of Appendix III constituents is performed to determine if constituents have returned to background conditions.

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 chloride. Monitoring results for 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.

4.1.2 Assessment Monitoring Statistics

Parametric tolerance limits were used to calculate background limits from pooled upgradient well data for Appendix IV parameters with a target of 95% confidence and 95% coverage. The confidence and coverage levels for nonparametric tolerance limits are dependent upon the number of background samples. The background limits were then used when determining the GWPS established under 40 CFR § 257.95(h) and GA EPD Rule 391-3-4-.10(6)(a).

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

- (1) The maximum contaminant level (MCL) established under §§ 141.62 and 141.66 of this title;
- (2) Where an MCL has not been established:
 - (i) Cobalt (0.006 mg/L);
 - (ii) Lead (0.015 mg/L)
 - (iii) Lithium (0.040 mg/L);
 - (iv) Molybdenum (0.100 mg/L).
- (3) Background levels for constituents where the background level is higher than the MCL or rule-identified GWPS.

US EPA revised the Federal CCR Rule on July 30, 2018, providing GWPS for cobalt, lead, lithium, and molybdenum as described above in 40 CFR 257.95(h)(2). Presently those updated GWPS have not yet been incorporated in the current GA EPD Rules for Solid Waste Management 391-3-4-.10(6)(a); and therefore, background concentrations are considered when determining the GWPS for constituents where an MCL has not been established (or where background is higher than the MCL). Under the existing GA EPD rules, the GWPS is:

- (1) The MCL;
- (2) Where an MCL has not been established, the background concentration;
- (3) Background levels for constituents where the background level is higher than the MCL.

Following the above Federal and State rule requirements, GWPS have been established for statistical comparison of Appendix IV constituents. Table 7, Summary of Background Levels and Groundwater Protection Standards, summarizes the background limit established at each monitoring well and the GWPS established under State and Federal rules.

To complete the statistical comparison to GWPS, confidence intervals were constructed for each of the Appendix IV parameters in each downgradient well. Those confidence intervals were compared to the GWPS established under the State and Federal rules. Only when the entire confidence interval is above a GWPS is the well/constituent pair considered to exceed its respective standard.

4.2 Statistical Analysis Results

Analytical data from the semiannual monitoring event in April 2019 were statistically analyzed in accordance with the Statistical Analysis Plan. Appendix III statistical analysis for wells associated with AP-3, B and B' was performed to determine if constituents have returned to background

levels. Appendix IV assessment monitoring parameters were evaluated to determine if concentrations statistically exceeded the established GWPS.

Based on review of the Appendix III statistical analyses for AP-3, B, and B' presented in Appendix C, Appendix III constituents have not returned to background levels and assessment monitoring should continue pursuant to 40 CFR § 257.95(f).

Additional AP-A monitoring well YGWC-49 was added to the detection monitoring event and data were statistically analyzed in accordance with the PE-certified statistical methods.

Based on the statistical results presented in Appendix C, an SSI for sulfate was observed during the most recent monitoring event. The following summarizes the parameter exhibiting an SSI for AP-A as follows:

- Sulfate: YGWC-49

Pursuant to §257.90(e), within 90 days from determining an SSI, GPC will either (1) prepare a demonstration that a source other than the CCR unit(s) was the cause, or (2) implement assessment monitoring per §257.95. Since the site has completed an ACM and is in assessment monitoring, well YGWC-49 will be added to the assessment monitoring program.

4.2.1 First Semiannual Assessment Monitoring Event

Statistical analysis of Appendix IV data identified two constituents at SSLs above the established GWPS at groundwater monitoring well YGWC-33S. The GWPS for beryllium and cobalt are the same whether derived following the updated Federal CCR rules or the existing GA EPD rules. The lower 95% confidence levels for beryllium and cobalt at YGWC-33S statistically exceed the respective GWPS of 0.004 and 0.013 mg/L.

5.0 MONITORING PROGRAM STATUS

In accordance with 40 CFR § 257.94(e), an assessment monitoring program was implemented in January 2018. SSLs of Appendix IV parameters were identified at the multi-unit network during the assessment monitoring event conducted in the first half of 2019. An *Assessment of Corrective Measures Report* was posted to the operating record on June 12, 2019 in accordance with 40 CFR § 257.96.

AP-A is subject to the timelines promulgated under § 257.100 and was added to the multi-unit network on April 17, 2019. In the upcoming groundwater sampling event YGWC-49 will be sampled for Appendix IV pursuant to 40 CFR § 257.95(b) and then sampled for Appendix III and detected Appendix IV constituents in order to bring the multiunit sampling schedule into alignment.

6.0 CONCLUSIONS AND FUTURE ACTIONS

The site has completed an ACM and is continuing to perform assessment monitoring pursuant to per §257.95. Statistical evaluations of the groundwater monitoring data for the Site identified SSLs of beryllium and cobalt in well YGWC-33S during the April 2019 sampling event. The Site will continue assessment monitoring pursuant to § 257.95 and implement assessment of corrective measures as required by § 257.96.

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

7.0 REFERENCES

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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
AP-3, A, B, and B'						
YGWA-4I	05/21/2014	48.70	735.48	38.37	745.81	Upgradient
YGWA-5I	05/21/2014	57.60	726.93	47.27	737.26	Upgradient
YGWA-5D	05/21/2014	128.80	655.73	78.47	706.06	Upgradient
YGWA-17S	09/10/2015	40.10	742.93	29.77	753.26	Upgradient
YGWA-18S	09/08/2015	40.30	750.23	29.97	760.56	Upgradient
YGWA-18I	09/08/2015	80.00	710.56	69.67	720.89	Upgradient
YGWA-20S	09/29/2015	29.52	737.78	19.19	748.11	Upgradient
YGWA-21I	09/28/2015	80.35	703.27	70.02	713.60	Upgradient
YGWC-23S	09/21/2015	29.79	734.83	19.46	745.16	Downgradient
YGWC-24S	09/16/2015	57.57	706.55	47.24	716.88	Downgradient
YGWC-33S	03/03/2016	38.53	706.01	28.33	716.21	Downgradient
YGWC-36	07/20/2016	55.86	683.67	45.53	694.00	Downgradient
YGWC-49	07/13/2016	78.83	703.89	68.83	713.89	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
YGWA-6S	05/19/2014	39.60	742.68	29.27	753.01	Piezometer
YGWA-6I	05/19/2014	69.10	713.48	58.77	723.81	Piezometer
YAMW-1	09/19/2018	69.66	674.10	59.66	684.10	Downgradient
PZ-04S	05/21/2014	32.97	751.56	22.64	761.89	Piezometer
PZ-05S	05/21/2014	41.90	742.74	31.57	753.07	Piezometer
PZ-06D	05/19/2014	135.85	646.08	85.52	696.41	Piezometer
PZ-24I	09/16/2015	89.79	674.54	79.46	684.87	Piezometer
PZ-35	07/20/2016	49.37	694.37	39.04	704.70	Downgradient
PZ-48	07/11/2016	59.04	720.84	48.71	731.17	Piezometer

Notes:

1. ft BTOC indicates feet below top of casing.
2. ft MSL indicates feet mean sea level.
3. YAMW-1 and PZ-35 used for downgradient characterization of YGWC-33S.

Table 2A
Groundwater Sampling Event Summary for the First Half of 2019

Well	Hydraulic Location	Mar. 4-6, 2019	Apr. 2-9, 2019
Purpose of Sampling Event		Assessment	First Semiannual
YGWA-4I	Upgradient	Scan	A-03
YGWA-5I	Upgradient	Scan	A-03
YGWA-5D	Upgradient	Scan	A-03
YGWA-17S	Upgradient	Scan	A-03
YGWA-18S	Upgradient	Scan	A-03
YGWA-18I	Upgradient	Scan	A-03
YGWA-20S	Upgradient	Scan	A-03
YGWA-21I	Upgradient	Scan	A-03
YGWC-23S	Downgradient	Scan	A-03
YGWC-24S	Downgradient	Scan	A-03
YGWC-33S	Downgradient	Scan	A-03
YGWC-36	Downgradient	Scan	A-03

Notes:

1. Scan = All Appendix IV.
2. A-XX = Assessment Event Number (Appendix III and Detected Appendix IV).

Table 2B
AP-A Groundwater Sampling Event Summary

Well	Hydraulic Location	September 1, 2016	November 15, 2016	February 27, 2017	May 9, 2017	July 13, 2017	October 11, 2017	April 4, 2018	September 20, 2018	March 28, 2019
Purpose of Sampling Event		Background	Background	Background	Background	Background	Background	Background	Background	Detection
YGWC-49	Downgradient	BG01	BG02	BG03	BG04	BG05	BG06	BG07	BG08	D01

Notes:

1. BGXX = Background Event (Appendix III and Appendix IV)
2. DXX = Detection Event (Appendix III)

**Table 3A
Summary of Groundwater Elevations
February 2019**

Well ID	TOC Elevation (ft MSL)	Depth-to- Water (ft BTOC)	Groundwater Elevation (ft MSL)
YGWA-4I	784.18	19.79	764.39
YGWA-5I	784.53	15.75	768.78
YGWA-5D	784.53	23.91	760.62
YGWA-6S	782.28	16.66	765.62
YGWA-6I	782.58	17.12	765.46
YGWA-17S	783.03	10.02	773.01
YGWA-18S	790.53	17.35	773.18
YGWA-18I	790.56	20.92	769.64
YGWA-20S	767.30	11.01	756.29
YGWA-21I	783.62	28.11*	755.51
YGWC-23S	764.62	15.19*	749.43
YGWC-24S	764.12	26.56	737.56
YGWC-33S	744.54	12.47*	732.07
YGWC-36	739.53	9.65*	729.88
YGWC-49	782.72	29.81	752.91
YAMW-1	743.76	11.54	732.22
PZ-04S	784.53	21.45	763.08
PZ-05S	784.64	15.62	769.02
PZ-06D	781.93	20.37	761.56
PZ-24I	764.33	27.49	736.84
PZ-35	743.74	11.81	731.93
PZ-48	779.88	18.14	761.74

Notes:

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

**Table 3B
Summary of Groundwater Elevations
March 2019**

Well ID	TOC Elevation (ft MSL)	Depth-to- Water (ft BTOC)	Groundwater Elevation (ft MSL)
YGWA-4I	784.18	19.03	765.15
YGWA-5I	784.53	15.49	769.04
YGWA-5D	784.53	22.57	761.96
YGWA-6S	782.28	16.62	765.66
YGWA-6I	782.58	17.17	765.41
YGWA-17S	783.03	11.05	771.98
YGWA-18S	790.53	17.15	773.38
YGWA-18I	790.56	20.78	769.78
YGWA-20S	767.30	11.10	756.20
YGWA-21I	783.62	27.66*	755.96
YGWC-23S	764.62	16.07*	748.55
YGWC-24S	764.12	26.67	737.45
YGWC-33S	744.54	13.22*	731.32
YGWC-36	739.53	10.00*	729.53
YGWC-49	782.72	29.34	753.38
YAMW-1	743.76	12.08	731.68
PZ-04S	784.53	20.65	763.88
PZ-05S	784.64	15.40	769.24
PZ-06D	781.93	20.12	761.81
PZ-24I	764.33	27.63	736.70
PZ-35	743.74	13.22	730.52
PZ-37	760.53	16.46*	744.07
PZ-48	779.88	18.04	761.84

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.

PROJECT NUMBER: I054-110 PAGE: 1 OF 1
 PROJECT NAME: Plant Yates BY: MM DATE: June 2019
 SUBJECT: AP-3, A, B, and B' CHK'D: EP DATE: June 2019

Table 4
GROUNDWATER FLOW VELOCITY CALCULATIONS
March 2019

Equation

$$v = \frac{K (dh/dl)}{P_e} \quad \text{where: } v = \text{ground water velocity}$$

K = hydraulic conductivity
 dh/dl = hydraulic gradient
 P_e = effective porosity

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 = 0.006 unitless i ₂ = 0.003 unitless i _{avg} = 0.005 unitless	Hydraulic gradient from YGWA-20S to YGWC-33S YGWC-33S to YGWC-36 Average
P _e = 0.20 unitless	See note 2.

Minimum Flow Velocity

$$v_{\min} = \frac{(0.28)(0.005)}{0.20}$$

v_{min} = 0.006 ft/day, or 2.3 ft/year

Maximum Flow Velocity

$$v_{\max} = \frac{(10)(0.005)}{0.20}$$

v_{max} = 0.24 ft/day, or 87 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 Groundwater Analytical Data
March 2019

Substance	MCL/ (SMCL)	YGWA-4I	YGWA-5I	YGWA-5D	YGWA-17S	YGWA-18S	YGWA-18I	YGWA-20S	YGWA-21I	
		3/4/2019	3/4/2019	3/4/2019	3/5/2019	3/5/2019	3/6/2019	3/5/2019	3/5/2019	
Appendix IV	Antimony	0.006	ND	ND	ND	ND	ND	ND	ND (0.0011 J)	
	Arsenic	0.01	ND	ND	ND	ND	ND	ND	ND (0.0013 J)	
	Barium	2	0.016	0.019	ND (0.0077 J)	0.015	0.020	0.024	0.016	0.011
	Beryllium	0.004	ND	ND	ND	ND (0.000091 J)	ND (0.000079 J)	ND	ND (0.00011 J)	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 (0.0039 J)
	Fluoride	4	ND	ND	ND (0.19 J)	ND	ND	ND	ND	0.32
	Lead	0.015	ND	ND	ND	ND	ND	ND	ND	ND
	Lithium	N/R	ND (0.015 J)	ND (0.0032 J)	ND (0.0065 J)	ND	ND (0.0031 J)	ND (0.0033 J)	ND	ND (0.0053 J)
	Mercury	0.002	ND	ND	ND	ND	ND	ND	ND	ND
	Molybdenum	N/R	ND	ND	ND	ND	ND	ND	ND	ND
	Radium	5	1.21 U	1.00 U	4.43	0.272 U	0.474 U	0.714 U	0.840 U	0.985 U
	Selenium	0.05	ND	ND	ND	ND	ND	ND	ND	ND
Thallium	0.002	ND	ND	ND	ND	ND	ND	ND	ND	

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. 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.

Table 5A
Summary of Groundwater Analytical Data
March 2019

Substance	MCL/ (SMCL)	YGWC-23S	YGWC-24S	YGWC-33S	YGWC-36	
		3/6/2019	3/5/2019	3/6/2019	3/6/2019	
Appendix IV	Antimony	0.006	ND	ND	ND	ND (0.0011 J)
	Arsenic	0.01	ND	ND	ND (0.0022 J)	ND
	Barium	2	0.019	0.019	0.012	0.041
	Beryllium	0.004	ND (0.000066 J)	ND (0.00016 J)	0.023	ND (0.00029 J)
	Cadmium	0.005	ND	ND	0.0030	ND (0.00015 J)
	Chromium	0.1	ND	ND	ND	ND
	Cobalt	N/R	ND	ND	0.028	ND
	Fluoride	4	ND	ND	0.49	ND
	Lead	0.015	ND	ND	ND (0.0012 J)	ND
	Lithium	N/R	ND (0.0025 J)	ND	ND (0.033 J)	ND (0.0057 J)
	Mercury	0.002	ND	ND	ND	ND
	Molybdenum	N/R	ND	ND	ND	ND
	Radium	5	0.736 U	0.837 U	0.970 U	0.919 U
	Selenium	0.05	0.019	ND	0.013	ND (0.0033 J)
Thallium	0.002	ND	ND	ND (0.00016 J)	ND	

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. 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.

Table 5B
Summary of Groundwater Analytical Data
April 2019

Substance	MCL/ (SMCL)	YGWA-4I	YGWA-5I	YGWA-5D	YGWA-17S	YGWA-18S	YGWA-18I	YGWA-20S	YGWA-21I	
		4/3/2019	4/3/2019	4/3/2019	4/2/2019	4/3/2019	4/3/2019	4/3/2019	4/2/2019	
Appendix III	Boron	N/R	ND (0.0055 J)	ND (0.0044 J)	ND (0.0076 J)	ND (0.0066 J)	ND (0.0053 J)	ND	ND	ND (0.011 J)
	Calcium	N/R	8.4	2.8	ND (24.7 J)	2.5	1.2	5.3	2.9	8.8
	Chloride	(250)	4.3	4.2	4.0	4.8	6.3	6.9	3.1	2.5
	Fluoride	4	ND	ND	ND (0.047 J)	ND	ND	ND	ND	ND (0.12 J)
	Sulfate	(250)	8.5	2.1	7.0	5.1	1.3	ND (0.82 J)	ND (0.12 J)	3.8
	TDS	(500)	111	83.0	142	72.0	63.0	89.0	57.0	134
Appendix IV	Antimony	0.006	ND	ND	ND	ND	ND	ND	ND	ND (0.0011 J)
	Arsenic	0.01	ND	ND	ND	ND	ND	ND	ND	ND (0.00096 J)
	Barium	2	0.017	0.023	ND (0.0087 J)	0.016	0.017	0.025	0.018	0.011
	Beryllium	0.004	ND	ND	ND	ND (0.000090 J)	ND (0.000075 J)	ND	ND (0.000064 J)	ND
	Cadmium	0.005	ND	ND	ND	ND	ND	ND	ND	ND
	Cobalt	N/R	ND (0.00083 J)	ND	ND	ND	ND	ND	ND	ND (0.0039 J)
	Lead	0.015	ND	ND	ND	ND	ND	ND	ND	ND
	Lithium	N/R	ND (0.014 J)	ND (0.0035 J)	ND (0.0070 J)	ND	ND (0.0028 J)	ND (0.0035 J)	ND	ND (0.0051 J)
	Radium	5	1.07 U	0.430 U	4.79	0.847 U	0.429 U	0.385 U	1.01	1.42
	Selenium	0.05	ND	ND	ND	ND	ND	ND	ND	ND
Thallium	0.002	ND	ND	ND	ND	ND	ND	ND	ND	

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. 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.

Table 5B
Summary of Groundwater Analytical Data
April 2019

Substance	MCL/ (SMCL)	YGWC-23S	YGWC-24S	YGWC-33S	YGWC-36	
		4/4/2019	4/4/2019	4/4/2019	4/4/2019	
Appendix III	Boron	N/R	0.60	ND	15.4	0.22
	Calcium	N/R	3.7	1.9	163	ND (16.9 J)
	Chloride	(250)	1.7	5.9	5.8	5.4
	Fluoride	4	ND (0.049 J)	ND (0.033 J)	0.57	ND (0.043 J)
	Sulfate	(250)	27.9	ND (0.29 J)	847	119
	TDS	(500)	85.0	63.0	1260	240
Appendix IV	Antimony	0.006	ND	ND	ND	0.0041
	Arsenic	0.01	ND	ND	ND (0.0024 J)	ND
	Barium	2	0.019	0.020	0.014	0.042
	Beryllium	0.004	ND (0.000072 J)	ND (0.00015 J)	0.025	ND (0.00033 J)
	Cadmium	0.005	ND	ND	0.0035	ND (0.00019 J)
	Cobalt	N/R	ND	ND	0.031	ND
	Lead	0.015	ND	ND	ND (0.0014 J)	ND (0.00037 J)
	Lithium	N/R	ND (0.0018 J)	ND	ND (0.035 J)	ND (0.0058 J)
	Radium	5	0.474 U	0.502 U	1.14	1.05 U
	Selenium	0.05	0.017	ND	0.012	ND (0.0029 J)
	Thallium	0.002	ND	ND	ND (0.00018 J)	ND

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. 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.

**Table 6
Statistical Method Summary**

Plant Yates AP-3, A, B, and B' 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, pH, sulfate, and TDS) or intrawell (chloride) statistical limits are on constituent specific basis, depending on the appropriateness of the method as determined by the Analysis of Variance

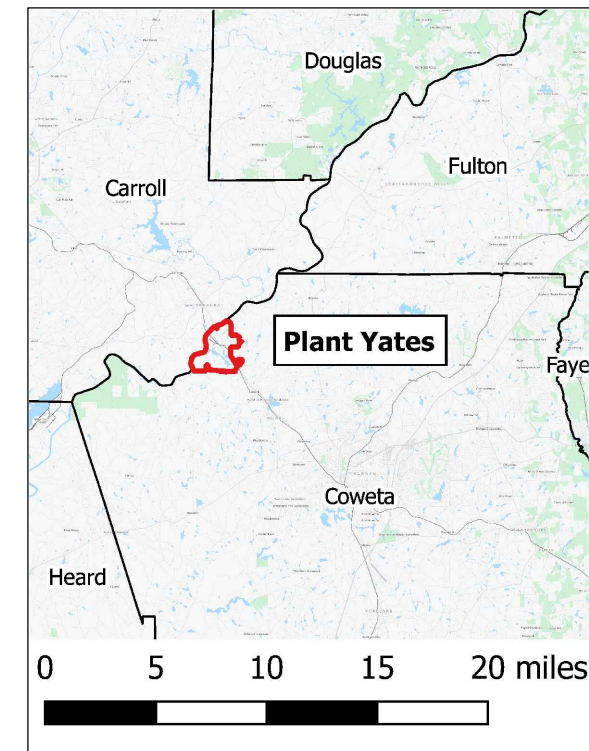
Table 7
Summary of Background Levels and Groundwater Protection Standards

Constituent	Units	Site Background	Federal GWPS	State GWPS
Antimony	mg/L	0.0015	0.006	0.006
Arsenic	mg/L	0.0025	0.010	0.010
Barium	mg/L	0.067	2	2
Beryllium	mg/L	0.0015	0.004	0.004
Cadmium	mg/L	0.0005	0.005	0.005
Cobalt	mg/L	0.013	0.013	0.013
Fluoride	mg/L	0.32	4	4
Lead	mg/L	0.0025	0.015	0.015
Lithium	mg/L	0.025	0.040	0.025
Radium	pCi/L	6.92	6.92	6.92
Selenium	mg/L	0.005	0.050	0.050
Thallium	mg/L	0.0005	0.002	0.002

Notes:

1. Site Background = Parametric tolerance limits calculated from pooled upgradient well data.
2. Federal GWPS = Groundwater protection standard, per 257.95(h)(1-3).
3. State GWPS = Groundwater protection standard, per Georgia EPD Rule 391-3-4-.10(6)(a).
4. Units are milligrams per liter (mg/L), except for radium, which are picocuries per liter (pCi/L).

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.
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:
I054-110
July 2019

WELL LOCATION
MAP

FIGURE 2



LEGEND

EXISTING	DESCRIPTION
	RAILROAD
	ACCESS ROAD
	PERMITTED UNIT BOUNDARY
	GROUNDWATER MONITORING WELL
	PIEZOMETER

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

MENT



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:

I054-110

July 2019

MARCH 2019 WATER TABLE CONTOUR MAP

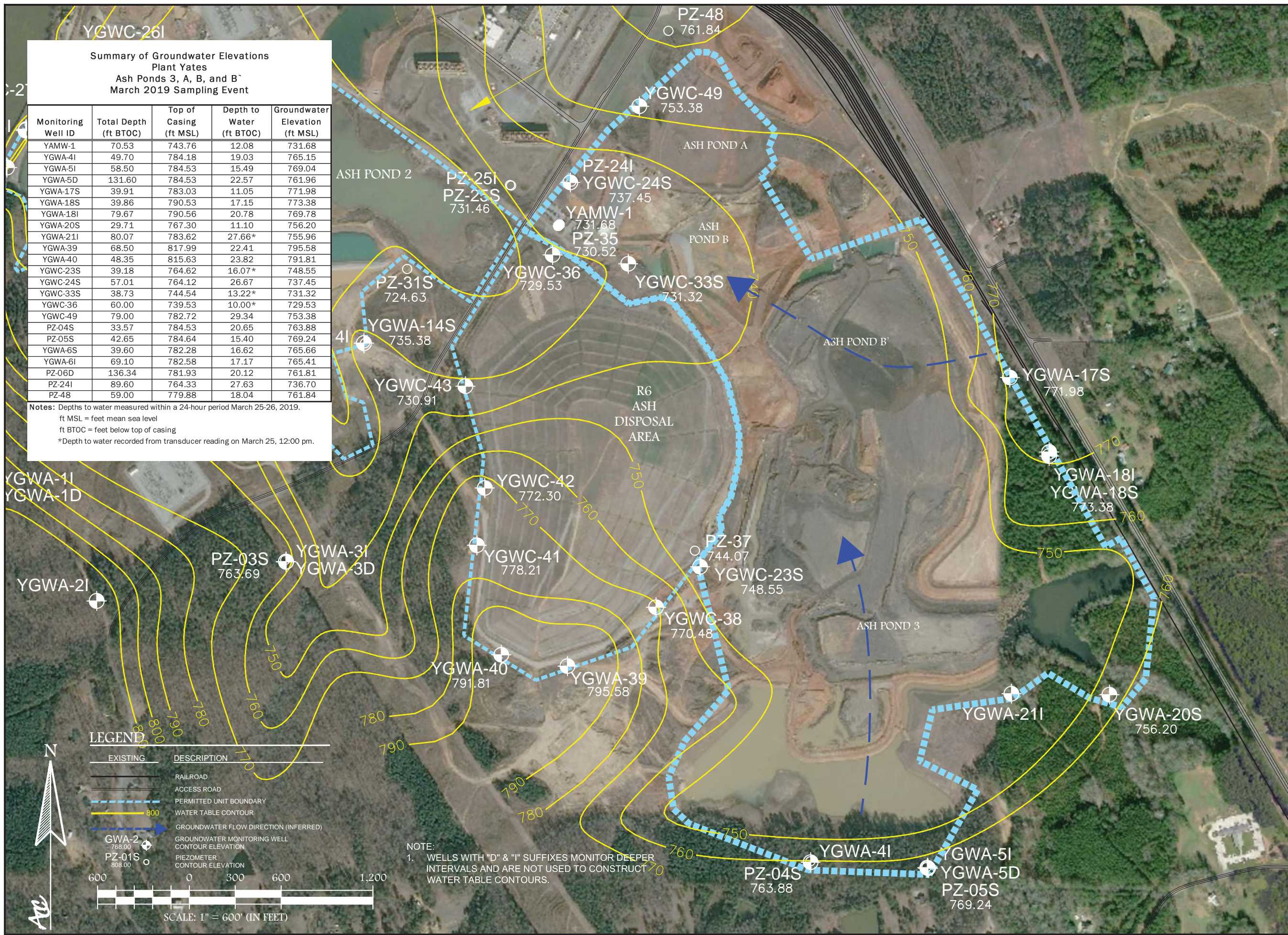
FIGURE 3

YGWC-26I

Summary of Groundwater Elevations Plant Yates Ash Ponds 3, A, B, and B' March 2019 Sampling Event

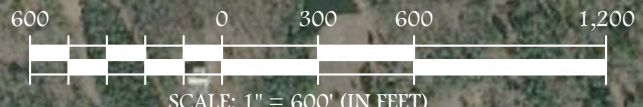
Monitoring Well ID	Total Depth (ft BTOC)	Top of Casing (ft MSL)	Depth to Water (ft BTOC)	Groundwater Elevation (ft MSL)
YAMW-1	70.53	743.76	12.08	731.68
YGWA-4I	49.70	784.18	19.03	765.15
YGWA-5I	58.50	784.53	15.49	769.04
YGWA-5D	131.60	784.53	22.57	761.96
YGWA-17S	39.91	783.03	11.05	771.98
YGWA-18S	39.86	790.53	17.15	773.38
YGWA-18I	79.67	790.56	20.78	769.78
YGWA-20S	29.71	767.30	11.10	756.20
YGWA-21I	80.07	783.62	27.66*	755.96
YGWA-39	68.50	817.99	22.41	795.58
YGWA-40	48.35	815.63	23.82	791.81
YGWC-23S	39.18	764.62	16.07*	748.55
YGWC-24S	57.01	764.12	26.67	737.45
YGWC-33S	38.73	744.54	13.22*	731.32
YGWC-36	60.00	739.53	10.00*	729.53
YGWC-49	79.00	782.72	29.34	753.38
PZ-04S	33.57	784.53	20.65	763.88
PZ-05S	42.65	784.64	15.40	769.24
YGWA-6S	39.60	782.28	16.62	765.66
YGWA-6I	69.10	782.58	17.17	765.41
PZ-06D	136.34	781.93	20.12	761.81
PZ-24I	89.60	764.33	27.63	736.70
PZ-48	59.00	779.88	18.04	761.84

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.



LEGEND

EXISTING	DESCRIPTION
	RAILROAD
	ACCESS ROAD
	PERMITTED UNIT BOUNDARY
	WATER TABLE CONTOUR
	GROUNDWATER FLOW DIRECTION (INFERRED)
	GROUNDWATER MONITORING WELL
	PIEZOMETER
	CONTOUR ELEVATION



NOTE: 1. WELLS WITH "D" & "I" SUFFIXES MONITOR DEEPER INTERVALS AND ARE NOT USED TO CONSTRUCT WATER TABLE CONTOURS.

APPENDICES

APPENDIX A

LABORATORY ANALYTICAL AND FIELD SAMPLING
REPORTS

Product Name: Low-Flow System

Date: 2019-03-04 14:36:46

Project Information:

Operator Name Hunter Auld
Company Name ACC
Project Name Plant Yates
Site Name Plant Yates AP3
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 598939
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED Bladder Pump
Tubing Type poly
Tubing Diameter .25 in
Tubing Length 50 ft

Pump placement from TOC 45 ft

Well Information:

Well ID YGWA-4I
Well diameter 2 in
Well Total Depth 49.7 ft
Screen Length 10 ft
Depth to Water 19.53 ft

Pumping Information:

Final Pumping Rate 90 mL/min
Total System Volume 0.7081711 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 12.2 in
Total Volume Pumped 2.9 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%	+/- 10		+/- 10%	+/- 0
Last 5	14:14:12	600.03	11.81	6.21	131.39	1.10	20.20	2.09	75.44
Last 5	14:19:12	900.03	12.50	6.18	131.92	1.10	20.35	1.53	77.32
Last 5	14:24:21	1209.01	12.90	6.17	132.82	0.8	20.40	1.41	76.70
Last 5	14:29:21	1509.03	12.97	6.18	131.88	0.70	20.50	1.35	77.08
Last 5	14:34:21	1809.02	12.90	6.18	131.39	0.70	20.55	1.36	77.09
Variance 0			0.40	-0.01	0.90			-0.12	-0.63
Variance 1			0.07	0.00	-0.94			-0.05	0.38
Variance 2			-0.06	-0.00	-0.49			0.00	0.01

Notes

Sampled at 1435 on 3-4-19. Partly cloudy, 40s.

Grab Samples

Product Name: Low-Flow System

Date: 2019-03-04 13:17:41

Project Information:

Operator Name Hunter Auld
Company Name ACC
Project Name Plant Yates
Site Name Plant Yates AP3
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 598939
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED Bladder Pump
Tubing Type poly
Tubing Diameter .25 in
Tubing Length 59 ft

Pump placement from TOC 53 ft

Well Information:

Well ID YGWA-5I
Well diameter 2 in
Well Total Depth 58.5 ft
Screen Length 10 ft
Depth to Water 15.5 ft

Pumping Information:

Final Pumping Rate 180 mL/min
Total System Volume 0.7483419 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 3.6 in
Total Volume Pumped 5.9 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%	+/- 10		+/- 10%	+/- 0
Last 5	12:54:21	600.04	13.99	5.92	72.81	1.00	15.80	5.76	90.08
Last 5	12:59:24	903.02	14.22	5.86	72.97	1.20	15.80	6.02	92.54
Last 5	13:04:24	1203.03	14.30	5.78	73.66	0.80	15.80	6.41	103.73
Last 5	13:09:27	1506.02	14.27	5.78	74.68	0.95	15.80	6.16	105.20
Last 5	13:14:36	1815.01	14.36	5.75	75.10	0.90	15.80	6.43	108.02
Variance 0			0.08	-0.08	0.70			0.40	11.19
Variance 1			-0.03	-0.00	1.02			-0.25	1.47
Variance 2			0.09	-0.03	0.42			0.27	2.82

Notes

Sampled at 1317 on 3-4-19. Sunny, 40.

Grab Samples

Product Name: Low-Flow System

Date: 2019-03-04 12:03:26

Project Information:

Operator Name Hunter Auld
Company Name ACC
Project Name Plant Yates
Site Name Plant Yates AP3
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 598939
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED Bladder Pump
Tubing Type poly
Tubing Diameter .25 in
Tubing Length 132 ft

Pump placement from TOC 105 ft

Well Information:

Well ID YGWA-5D
Well diameter 2 in
Well Total Depth 131.6 ft
Screen Length 50 ft
Depth to Water 23.75 ft

Pumping Information:

Final Pumping Rate 120 mL/min
Total System Volume 1.074172 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 4.2 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%	+/- 10		+/- 10%	+/- 0
Last 5	11:39:56	905.03	12.40	7.42	199.89	0.60	24.10	0.17	-106.99
Last 5	11:44:56	1205.03	12.54	7.53	200.97	0.55	24.10	0.12	-122.30
Last 5	11:49:59	1508.02	12.55	7.50	188.11	0.50	24.10	0.11	-121.19
Last 5	11:55:07	1816.01	12.58	7.47	183.72	0.5	24.10	0.10	-116.70
Last 5	12:00:08	2117.01	12.57	7.46	182.07	0.50	24.10	0.09	-117.63
Variance 0			0.01	-0.03	-12.87			-0.02	1.11
Variance 1			0.03	-0.04	-4.38			-0.01	4.48
Variance 2			-0.01	-0.01	-1.65			-0.01	-0.93

Notes

Sampled at 1203 on 3-4-19. Cloudy, 30s.

Grab Samples

Product Name: Low-Flow System

Date: 2019-03-05 11:38:40

Project Information:

Operator Name Hunter Auld
Company Name ACC
Project Name Plant Yates
Site Name Plant Yates AP3
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 598939
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED Bladder Pump
Tubing Type poly
Tubing Diameter .25 in
Tubing Length 32 ft

Pump placement from TOC 26 ft

Well Information:

Well ID YGWA-17S
Well diameter 2 in
Well Total Depth 31.61 ft
Screen Length 10 ft
Depth to Water 9.95 ft

Pumping Information:

Final Pumping Rate 210 mL/min
Total System Volume 0.7938874 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 4.2 in
Total Volume Pumped 10.1 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 0
Last 5	11:16:19	1501.03	15.66	5.48	80.17	5.10	10.30	2.52	136.05
Last 5	11:21:24	1806.02	15.35	5.48	81.13	5.40	10.30	1.72	136.72
Last 5	11:26:24	2106.01	15.35	5.49	81.63	5.40	10.30	1.57	131.15
Last 5	11:31:24	2406.01	15.57	5.48	81.71	4.87	10.30	1.53	135.86
Last 5	11:36:25	2706.99	15.71	5.48	81.97	4.40	10.30	1.49	129.38
Variance 0			0.00	0.01	0.50			-0.15	-5.57
Variance 1			0.22	-0.01	0.08			-0.04	4.71
Variance 2			0.14	0.00	0.26			-0.04	-6.48

Notes

Sampled at 1138 on 3-5-19. Sunny, 30s.

Grab Samples

Product Name: Low-Flow System

Date: 2019-03-05 16:52:55

Project Information:

Operator Name Hunter Auld
Company Name ACC
Project Name Plant Yates
Site Name Plant Yates AP3
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 598939
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED Bladder Pump
Tubing Type poly
Tubing Diameter .25 in
Tubing Length 40 ft

Pump placement from TOC 35 ft

Well Information:

Well ID YGWA-18S
Well diameter 2 in
Well Total Depth 39.86 ft
Screen Length 10 ft
Depth to Water 17.04 ft

Pumping Information:

Final Pumping Rate 180 mL/min
Total System Volume 0.8711092 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 16.32 in
Total Volume Pumped 32.4 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	16:31:35	9644.91	15.13	5.26	61.26	10.10	18.40	3.40	128.84
Last 5	16:36:49	9958.91	15.17	5.26	61.33	9.40	18.40	3.39	128.75
Last 5	16:41:49	10258.90	15.14	5.26	61.34	9.70	10.40	3.38	131.19
Last 5	16:46:49	10558.90	15.17	5.27	61.35	9.90	10.40	3.36	128.00
Last 5	16:51:50	10859.89	15.20	5.26	61.60	9.30	10.40	3.37	128.06
Variance 0			-0.02	-0.00	0.02			-0.01	2.44
Variance 1			0.02	0.01	0.00			-0.02	-3.20
Variance 2			0.03	-0.00	0.25			0.02	0.06

Notes

Sampled at 1653 on 3-5-19. Sunny, 40s.

Grab Samples

Product Name: Low-Flow System

Date: 2019-03-06 11:25:43

Project Information:

Operator Name Hunter Auld
Company Name ACC
Project Name Plant Yates
Site Name Plant Yates AP3
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 598939
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED Bladder Pump
Tubing Type poly
Tubing Diameter .25 in
Tubing Length 80 ft

Pump placement from TOC 74 ft

Well Information:

Well ID YGWA-18I
Well diameter 2 in
Well Total Depth 79.67 ft
Screen Length 10 ft
Depth to Water 20.86 ft

Pumping Information:

Final Pumping Rate 160 mL/min
Total System Volume 1.257218 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0 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%	+/- 10		+/- 10%	+/- 0
Last 5	11:03:58	1500.01	14.40	6.01	89.46	1.50	20.90	4.06	93.78
Last 5	11:08:58	1800.04	14.58	5.99	83.85	1.60	20.90	4.04	94.35
Last 5	11:13:59	2101.02	14.53	6.02	90.04	1.70	20.85	4.22	93.20
Last 5	11:19:02	2404.02	14.66	6.01	90.00	1.60	20.85	4.45	95.48
Last 5	11:24:02	2704.01	14.36	5.99	90.23	1.90	20.86	4.38	99.08
Variance 0			-0.05	0.02	6.19			0.18	-1.15
Variance 1			0.13	-0.01	-0.04			0.23	2.29
Variance 2			-0.30	-0.02	0.23			-0.07	3.60

Notes

Sampled at 1125 on 3-6-19. Sunny, 30s.

Grab Samples

Product Name: Low-Flow System

Date: 2019-03-05 13:40:15

Project Information:

Operator Name Chris Parker
Company Name Atlantic Coast Consulting
Project Name Plant Yates
Site Name Plant Yates - AP 3
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 596190
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type Bladder Pump
Tubing Type Poly
Tubing Diameter .25 in
Tubing Length 30 ft

Pump placement from TOC 25 ft

Well Information:

Well ID YGWA-20S
Well diameter 2 in
Well Total Depth 29.71 ft
Screen Length 10 ft
Depth to Water 10.87 ft

Pumping Information:

Final Pumping Rate 170 mL/min
Total System Volume 0.6189027 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 6 in
Total Volume Pumped 6.8 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	13:16:56	900.00	15.44	6.14	63.25	6.25	11.40	5.32	98.63
Last 5	13:21:56	1199.99	15.44	6.08	63.16	5.97	11.40	5.17	91.97
Last 5	13:26:56	1499.99	15.54	6.07	62.96	5.76	11.40	5.24	93.69
Last 5	13:31:56	1799.97	15.48	6.07	62.80	5.14	11.40	5.24	95.24
Last 5	13:36:56	2099.97	15.48	6.07	62.57	4.50	11.40	5.21	92.44
Variance 0			0.11	-0.01	-0.20			0.08	1.72
Variance 1			-0.06	-0.00	-0.16			-0.00	1.54
Variance 2			-0.00	0.01	-0.23			-0.03	-2.80

Notes

Sampled at 13:40. Sunny 30s.

Grab Samples

Product Name: Low-Flow System

Date: 2019-03-05 12:05:17

Project Information:

Operator Name Chris Parker
Company Name Atlantic Coast Consulting
Project Name Plant Yates
Site Name Plant Yates - AP 3
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 596190
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 YGWA-21I
Well diameter 2 in
Well Total Depth 80.07 ft
Screen Length 10 ft
Depth to Water - ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 1.257218 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0 in
Total Volume Pumped 2.8 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	11:43:01	900.03	12.11	6.93	182.53	1.07	--	0.73	-87.61
Last 5	11:48:01	1199.99	11.70	7.00	199.26	0.77	--	0.54	-107.54
Last 5	11:53:01	1499.97	13.39	7.13	217.67	0.54	--	0.26	-133.28
Last 5	11:58:01	1799.97	13.76	7.20	219.08	0.65	--	0.24	-136.99
Last 5	12:03:01	2099.96	13.76	7.22	221.68	0.56	--	0.18	-140.86
Variance 0			1.69	0.13	18.41			-0.28	-25.74
Variance 1			0.37	0.07	1.40			-0.02	-3.70
Variance 2			0.00	0.02	2.60			-0.05	-3.87

Notes

Sampled at 12:05. Sunny 30s. Transducer in well.

Grab Samples

Product Name: Low-Flow System

Date: 2019-03-06 13:15:55

Project Information:

Operator Name Hunter Auld
Company Name ACC
Project Name Plant Yates
Site Name Plant Yates AP3
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 598939
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED Bladder Pump
Tubing Type poly
Tubing Diameter .25 in
Tubing Length 40 ft

Pump placement from TOC 34 ft

Well Information:

Well ID YGWC-23S
Well diameter 2 in
Well Total Depth 39.18 ft
Screen Length 10 ft
Depth to Water ft

Pumping Information:

Final Pumping Rate 180 mL/min
Total System Volume 0.8711092 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0 in
Total Volume Pumped 4.7 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%	+/- 10		+/- 10%	+/- 0
Last 5	12:54:31	300.05	16.66	5.94	77.83	1.40	0.00	8.79	119.31
Last 5	12:59:31	600.05	16.81	5.89	76.15	1.20	--	8.64	119.14
Last 5	13:04:31	900.04	16.65	5.87	74.99	1.00	--	8.64	119.81
Last 5	13:09:31	1200.04	17.01	5.86	74.93	0.80	--	8.57	123.37
Last 5	13:14:31	1500.04	16.96	5.84	74.64	0.93	--	8.68	122.43
Variance 0			-0.17	-0.02	-1.17			0.00	0.67
Variance 1			0.36	-0.01	-0.06			-0.08	3.57
Variance 2			-0.05	-0.02	-0.29			0.11	-0.94

Notes

Sampled at 1315 on 3-6-19. Sunny, 40s. Transducer in well, no WL.

Grab Samples

Product Name: Low-Flow System

Date: 2019-03-05 14:53:03

Project Information:

Operator Name Chris Parker
Company Name Atlantic Coast Consulting
Project Name Plant Yates
Site Name Plant Yates - AP 3
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 596190
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type Bladder Pump
Tubing Type Poly
Tubing Diameter .25 in
Tubing Length 57 ft

Pump placement from TOC 52'

Well Information:

Well ID YGWC-24S
Well diameter 2 in
Well Total Depth 57.01 ft
Screen Length 10 ft
Depth to Water 26.43 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 1.035206 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 8 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			+/- 0	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	14:30:28	300.01	15.12	6.25	68.51	4.35	26.80	6.27	100.70
Last 5	14:35:28	600.00	15.70	5.77	66.93	1.28	27.00	6.31	116.80
Last 5	14:40:28	900.00	15.68	5.74	66.27	1.80	27.10	6.23	116.93
Last 5	14:45:28	1199.98	16.02	5.74	66.11	0.92	27.10	6.15	115.07
Last 5	14:50:28	1499.98	16.06	5.72	66.36	0.63	27.10	6.15	116.59
Variance 0			-0.02	-0.04	-0.66			-0.08	0.12
Variance 1			0.34	0.00	-0.16			-0.09	-1.85
Variance 2			0.04	-0.02	0.25			0.00	1.52

Notes

Sampled at 14:55. Sunny 30s.

Grab Samples

Product Name: Low-Flow System

Date: 2019-03-06 12:59:11

Project Information:

Operator Name Chris Parker
Company Name Atlantic Coast Consulting
Project Name Plant Yates
Site Name Plant Yates - AP 3
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 596190
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type Bladder Pump
Tubing Type Poly
Tubing Diameter .25 in
Tubing Length 38 ft

Pump placement from TOC 33 ft

Well Information:

Well ID YGWC-33S
Well diameter 2 in
Well Total Depth 38.73 ft
Screen Length 10 ft
Depth to Water ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.8518038 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0 in
Total Volume Pumped 9 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	12:35:19	900.00	17.57	3.28	1416.98	1.67	--	1.14	285.53
Last 5	12:40:19	1199.99	17.99	3.28	1411.66	1.52	--	0.67	279.21
Last 5	12:45:19	1499.99	17.85	3.27	1405.50	1.40	--	0.58	274.06
Last 5	12:50:19	1799.98	17.97	3.27	1409.21	1.71	--	0.56	268.25
Last 5	12:55:19	2099.97	18.05	3.27	1404.44	1.39	--	0.56	268.62
Variance 0			-0.13	-0.01	-6.16			-0.09	-5.14
Variance 1			0.12	0.00	3.71			-0.02	-5.82
Variance 2			0.08	0.00	-4.77			-0.01	0.37

Notes

Transducer in well
Sampled at 1300. Sunny 40s. DUP 4 here.

Grab Samples

Product Name: Low-Flow System

Date: 2019-03-06 11:29:34

Project Information:

Operator Name Chris Parker
Company Name Atlantic Coast Consulting
Project Name Plant Yates
Site Name Plant Yates - AP 3
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 596190
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type Bladder Pump
Tubing Type Poly
Tubing Diameter .25 in
Tubing Length 60 ft

Pump placement from TOC 55 ft

Well Information:

Well ID YGWC-36
Well diameter 2 in
Well Total Depth 60.0 ft
Screen Length 10 ft
Depth to Water ft

Pumping Information:

Final Pumping Rate 160 mL/min
Total System Volume 1.064164 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0 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	11:05:58	300.06	16.64	6.18	380.48	2.35	--	1.98	64.69
Last 5	11:10:58	600.02	16.87	5.30	361.44	0.93	--	2.13	121.48
Last 5	11:15:58	900.01	17.08	5.21	357.04	1.14	--	2.00	124.54
Last 5	11:20:58	1199.99	17.01	5.24	355.96	0.98	--	1.97	125.60
Last 5	11:25:58	1499.99	17.06	5.21	355.56	1.25	--	1.94	125.31
Variance 0			0.21	-0.09	-4.39			-0.13	3.05
Variance 1			-0.07	0.03	-1.08			-0.03	1.07
Variance 2			0.05	-0.03	-0.39			-0.03	-0.29

Notes

Sampled at 11:30. Sunny 30s. EB 4 here at 10:45 - gloves.
Transducer in well.

Grab Samples

Product Name: Low-Flow System

Date: 2019-04-03 13:46:50

Project Information:

Operator Name Chris Parker
Company Name Atlantic Coast Consulting
Project Name Plant Yates - AP 3
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 50 ft

Pump placement from TOC 45 ft

Well Information:

Well ID YGWA-4I
Well diameter 2 in
Well Total Depth 49.70 ft
Screen Length 10 ft
Depth to Water 19.22 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 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	13:23:47	1199.99	18.45	6.44	163.72	8.90	20.20	1.55	137.30
Last 5	13:28:47	1499.99	18.18	6.44	164.28	7.13	20.20	1.37	136.60
Last 5	13:33:47	1799.98	18.10	6.43	163.92	5.78	20.20	1.32	136.87
Last 5	13:38:47	2099.97	17.87	6.43	163.39	5.05	20.20	1.32	137.22
Last 5	13:43:47	2399.96	17.76	6.43	162.51	4.64	20.20	1.30	136.76
Variance 0			-0.08	-0.00	-0.36			-0.04	0.28
Variance 1			-0.23	-0.00	-0.53			-0.01	0.34
Variance 2			-0.11	0.00	-0.88			-0.02	-0.45

Notes

Sampled at 13:50. Sunny 60s. DUP 1 here.

Grab Samples

Product Name: Low-Flow System

Date: 2019-04-03 13:51:50

Project Information:

Operator Name Hunter Auld
Company Name ACC
Project Name Plant Yates AP3
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 83 ft

Pump placement from TOC 106 ft

Well Information:

Well ID YGWA-5D
Well diameter 2 in
Well Total Depth 131.60 ft
Screen Length 50 ft
Depth to Water 22.43 ft

Pumping Information:

Final Pumping Rate 120 mL/min
Total System Volume 1.286177 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 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			+/- 0	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 0
Last 5	13:30:10	1200.01	16.95	7.01	241.54	2.60	22.85	0.97	-134.54
Last 5	13:35:10	1500.04	16.94	7.07	229.76	2.90	22.85	0.75	-123.00
Last 5	13:40:10	1800.01	16.88	7.08	226.93	2.70	22.85	0.41	-117.08
Last 5	13:45:10	2100.02	16.94	7.09	224.20	3.10	22.85	0.28	-113.43
Last 5	13:50:15	2405.02	16.96	7.11	222.12	3.00	22.85	0.24	-109.98
Variance 0			-0.07	0.01	-2.83			-0.34	5.93
Variance 1			0.06	0.01	-2.73			-0.13	3.65
Variance 2			0.02	0.02	-2.08			-0.04	3.45

Notes

Sampled at 1555 on 4-3-19. Sunny, 60s. FB-1-4-3-19 here at 1320.

Grab Samples

Product Name: Low-Flow System

Date: 2019-04-03 15:40:17

Project Information:

Operator Name Hunter Auld
Company Name ACC
Project Name Plant Yates AP3
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 59 ft

Pump placement from TOC 53 ft

Well Information:

Well ID YGWA-5I
Well diameter 2 in
Well Total Depth 58.5 ft
Screen Length 10 ft
Depth to Water 15.78 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 1.054511 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 3.2 in
Total Volume Pumped 5.3 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	15:16:39	600.05	16.96	5.95	90.18	3.70	16.05	6.32	119.12
Last 5	15:21:39	900.02	16.87	5.75	90.48	3.50	16.05	6.22	122.89
Last 5	15:26:40	1201.01	16.83	5.65	90.38	3.10	16.05	6.15	125.31
Last 5	15:31:40	1501.04	16.92	5.66	90.45	4.10	16.05	6.14	123.17
Last 5	15:36:40	1801.00	16.87	5.63	91.01	4.10	16.05	6.10	123.00
Variance 0			-0.04	-0.09	-0.10			-0.07	2.42
Variance 1			0.09	0.00	0.07			-0.01	-2.14
Variance 2			-0.04	-0.02	0.56			-0.04	-0.17

Notes

Sampled at 1540 on 4-3-19. Sunny, 70.

Grab Samples

Product Name: Low-Flow System

Date: 2019-04-02 15:09:20

Project Information:

Operator Name Chris Parker
Company Name Atlantic Coast Consulting
Project Name Plant Yates - AP 3
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 39 ft

Pump placement from TOC 34 ft

Well Information:

Well ID YGWA-17S
Well diameter 2 in
Well Total Depth 39.91 ft
Screen Length 10 ft
Depth to Water 11.35 ft

Pumping Information:

Final Pumping Rate 210 mL/min
Total System Volume 0.8614565 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 6 in
Total Volume Pumped 12.6 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	14:42:20	1799.98	17.36	5.75	80.80	7.64	11.80	1.53	183.09
Last 5	14:47:20	2099.97	17.47	5.74	80.80	6.86	11.80	1.51	183.82
Last 5	14:52:20	2399.96	17.36	5.74	80.88	5.59	11.80	1.51	184.44
Last 5	14:57:21	2700.95	17.31	5.74	81.03	4.96	11.80	1.49	184.92
Last 5	15:02:21	3000.94	17.36	5.74	81.13	4.81	11.80	1.49	185.18
Variance 0			-0.11	-0.01	0.09			-0.00	0.62
Variance 1			-0.05	0.00	0.15			-0.02	0.49
Variance 2			0.05	-0.00	0.10			-0.01	0.26

Notes

Sampled at 15:10. Sunny 60s.

Grab Samples

Product Name: Low-Flow System

Date: 2019-04-03 11:32:39

Project Information:

Operator Name Chris Parker
Company Name Atlantic Coast Consulting
Project Name Plant Yates - AP 3
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 YGWA-18I
Well diameter 2 in
Well Total Depth 79.67 ft
Screen Length 10 ft
Depth to Water 21.03 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 1.257218 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 2 in
Total Volume Pumped 6.8 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	11:09:04	900.00	15.82	6.28	119.15	6.38	21.20	3.90	159.26
Last 5	11:14:04	1199.99	15.97	6.27	118.99	5.49	21.20	3.83	160.66
Last 5	11:19:04	1499.99	16.04	6.29	118.78	5.11	21.20	3.66	161.44
Last 5	11:24:04	1799.98	16.11	6.28	119.00	4.98	21.20	3.55	163.24
Last 5	11:29:04	2099.97	16.16	6.29	119.21	4.87	21.20	3.50	163.11
Variance 0			0.06	0.01	-0.22			-0.17	0.77
Variance 1			0.07	-0.01	0.22			-0.11	1.80
Variance 2			0.05	0.01	0.21			-0.05	-0.13

Notes

Sampled at 11:35. Sunny 60s

Grab Samples

Product Name: Low-Flow System

Date: 2019-04-03 10:15:10

Project Information:

Operator Name Chris Parker
Company Name Atlantic Coast Consulting
Project Name Plant Yates - AP 3
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 40 ft

Pump placement from TOC 35 ft

Well Information:

Well ID YGWA-18S
Well diameter 2 in
Well Total Depth 39.86 ft
Screen Length 10 ft
Depth to Water 17.42 ft

Pumping Information:

Final Pumping Rate 140 mL/min
Total System Volume 0.8711092 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 9 in
Total Volume Pumped 9.1 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	09:53:05	600.01	14.03	5.64	61.36	4.46	18.20	4.19	212.28
Last 5	09:58:05	900.04	14.13	5.50	61.00	3.92	18.20	4.09	216.56
Last 5	10:03:05	1200.00	14.20	5.49	60.81	3.66	18.20	4.07	216.09
Last 5	10:08:05	1499.98	14.24	5.48	60.86	3.15	18.20	4.02	215.80
Last 5	10:13:05	1799.98	14.35	5.47	60.74	3.58	18.20	4.01	215.41
Variance 0			0.07	-0.01	-0.19			-0.02	-0.48
Variance 1			0.04	-0.01	0.05			-0.05	-0.28
Variance 2			0.11	-0.01	-0.12			-0.01	-0.39

Notes

Sampled at 10:15. Sunny 50s

Grab Samples

Product Name: Low-Flow System

Date: 2019-04-03 12:32:31

Project Information:

Operator Name Hunter Auld
Company Name ACC
Project Name Plant Yates AP3
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 24 ft

Pump placement from TOC 18 ft

Well Information:

Well ID YGWA-20S
Well diameter 2 in
Well Total Depth 23.79 ft
Screen Length 10 ft
Depth to Water 11.05 ft

Pumping Information:

Final Pumping Rate 120 mL/min
Total System Volume 0.7166655 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 6 in
Total Volume Pumped 12.4 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	12:07:06	4799.97	16.56	5.72	62.43	6.30	11.55	5.78	154.52
Last 5	12:12:06	5099.94	16.69	5.71	62.36	5.60	11.55	5.77	165.69
Last 5	12:17:06	5399.93	16.74	5.67	62.29	5.60	11.55	5.73	175.88
Last 5	12:22:06	5699.96	17.13	5.72	62.19	5.20	11.55	5.74	194.05
Last 5	12:27:06	5999.94	17.29	5.71	62.24	4.85	11.55	5.74	223.44
Variance 0			0.06	-0.03	-0.08			-0.04	10.18
Variance 1			0.39	0.05	-0.10			0.01	18.18
Variance 2			0.16	-0.01	0.05			0.00	29.39

Notes

Sampled at 1230 on 4-3-19. Sunny, 60. EB-1-4-3-19 here at 1100.

Grab Samples

Product Name: Low-Flow System

Date: 2019-04-02 15:56:13

Project Information:

Operator Name Hunter Auld
Company Name ACC
Project Name Plant Yates AP3
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 80 ft

Pump placement from TOC 75 ft

Well Information:

Well ID YGWA-21I
Well diameter 2 in
Well Total Depth 80.07 ft
Screen Length 10 ft
Depth to Water ft

Pumping Information:

Final Pumping Rate 110 mL/min
Total System Volume 1.257218 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0 in
Total Volume Pumped 4 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 0
Last 5	15:34:24	900.04	17.72	6.77	212.59	0.50	--	0.74	-107.24
Last 5	15:39:24	1200.03	18.03	6.85	211.08	0.50	--	0.68	-106.44
Last 5	15:44:24	1500.03	18.12	6.89	206.74	0.40	--	0.45	-102.50
Last 5	15:49:24	1800.02	18.26	6.90	203.26	0.50	--	0.30	-99.61
Last 5	15:54:24	2100.02	17.64	6.94	202.66	0.50	--	0.25	-97.69
Variance 0			0.09	0.04	-4.34			-0.23	3.94
Variance 1			0.13	0.01	-3.48			-0.15	2.89
Variance 2			-0.62	0.03	-0.60			-0.04	1.92

Notes

Sampled at 1556 on 4-2-19. Sunny, 60.

Grab Samples

Product Name: Low-Flow System

Date: 2019-04-04 13:07:03

Project Information:

Operator Name Hunter Auld
Company Name ACC
Project Name Plant Yates AP3
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 40 ft

Pump placement from TOC 34 ft

Well Information:

Well ID YGWC-23S
Well diameter 2 in
Well Total Depth 39.18 ft
Screen Length 10 ft
Depth to Water ft

Pumping Information:

Final Pumping Rate 220 mL/min
Total System Volume 0.8711092 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0 in
Total Volume Pumped 7.7 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%	+/- 10		+/- 10%	+/- 0
Last 5	12:42:59	600.03	18.30	5.58	89.55	33.00	--	8.23	147.05
Last 5	12:47:59	900.02	18.24	5.61	89.14	16.00	--	8.21	151.23
Last 5	12:52:59	1200.02	18.17	5.59	88.85	12.00	--	8.22	149.94
Last 5	12:57:59	1500.02	18.15	5.62	88.68	6.90	--	8.24	145.87
Last 5	13:02:59	1800.02	18.07	5.64	87.88	4.80	--	8.23	146.91
Variance 0			-0.07	-0.02	-0.29			0.01	-1.28
Variance 1			-0.02	0.02	-0.18			0.03	-4.08
Variance 2			-0.08	0.02	-0.80			-0.01	1.04

Notes

Sampled at 1305 on 4-4-19. Cloudy, 70s. FB-2-4-4-19 here at 1325.

Grab Samples

Product Name: Low-Flow System

Date: 2019-04-04 12:18:44

Project Information:

Operator Name Chris Parker
Company Name Atlantic Coast Consulting
Project Name Plant Yates - AP 3
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 57 ft

Pump placement from TOC 52 ft

Well Information:

Well ID YGWC-24S
Well diameter 2 in
Well Total Depth 57.01 ft
Screen Length 10 ft
Depth to Water 26.92 ft

Pumping Information:

Final Pumping Rate 210 mL/min
Total System Volume 1.035206 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 9 in
Total Volume Pumped 8.4 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	11:54:12	600.01	17.90	6.01	65.65	3.11	27.50	6.53	183.53
Last 5	11:59:12	900.00	17.95	5.78	65.33	3.98	27.60	6.34	189.08
Last 5	12:04:12	1199.99	17.90	5.72	65.27	3.40	27.60	6.33	197.22
Last 5	12:09:12	1499.98	17.94	5.67	65.35	3.07	27.60	6.35	192.49
Last 5	12:14:12	1799.97	17.98	5.66	65.36	2.94	27.60	6.37	192.64
Variance 0			-0.05	-0.06	-0.06			-0.00	8.14
Variance 1			0.04	-0.05	0.08			0.01	-4.73
Variance 2			0.04	-0.01	0.02			0.02	0.15

Notes

Sampled at 12:20. Cloudy 60s. EB 2 here at 11:25 - gloves.

Grab Samples

Product Name: Low-Flow System

Date: 2019-04-09 12:04:27

Project Information:

Operator Name Chris Parker
Company Name Atlantic Coast Consulting
Project Name Plant Yates - AP 3
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 57 ft

Pump placement from TOC 52 ft

Well Information:

Well ID YGWC-24S
Well diameter 2 in
Well Total Depth 57.01 ft
Screen Length 10 ft
Depth to Water 26.95 ft

Pumping Information:

Final Pumping Rate 190 mL/min
Total System Volume 1.035206 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 5 in
Total Volume Pumped 7.6 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	11:38:47	600.01	18.66	6.00	62.31	0.86	27.30	6.66	185.58
Last 5	11:43:47	900.00	18.85	5.81	61.94	1.02	27.30	6.61	189.12
Last 5	11:48:47	1199.99	18.74	5.74	61.84	0.88	27.30	6.49	190.64
Last 5	11:53:47	1499.98	18.81	5.69	61.98	1.09	27.30	6.39	191.74
Last 5	11:58:47	1799.98	19.06	5.69	61.91	1.01	27.30	6.41	192.44
Variance 0			-0.11	-0.07	-0.10			-0.12	1.52
Variance 1			0.07	-0.05	0.14			-0.09	1.10
Variance 2			0.25	-0.00	-0.07			0.01	0.70

Notes

Sampled at 12:05. Cloudy 60s.

Grab Samples

Product Name: Low-Flow System

Date: 2019-04-04 11:33:09

Project Information:

Operator Name Hunter Auld
Company Name ACC
Project Name Plant Yates AP3
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 39 ft

Pump placement from TOC 33 ft

Well Information:

Well ID YGWC-33S
Well diameter 2 in
Well Total Depth 38.73 ft
Screen Length 10 ft
Depth to Water ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.8614565 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0 in
Total Volume Pumped 8 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 0
Last 5	11:12:15	900.02	18.79	3.87	1357.11	12.10	--	0.24	280.88
Last 5	11:17:15	1200.02	18.76	3.86	1359.06	8.90	--	0.20	279.20
Last 5	11:22:15	1500.01	18.74	3.87	1356.92	6.40	--	0.18	274.01
Last 5	11:27:15	1800.01	18.73	3.88	1355.84	5.50	--	0.18	270.61
Last 5	11:32:15	2100.00	18.73	3.88	1354.35	4.90	--	0.17	268.24
Variance 0			-0.02	0.01	-2.13			-0.02	-5.20
Variance 1			-0.02	0.00	-1.08			0.00	-3.40
Variance 2			0.01	0.00	-1.49			-0.01	-2.36

Notes

Sampled at 1135 on 4-4-19. Cloudy, 70. Dup-2 here. Transducer in well, no WL.

Grab Samples

Product Name: Low-Flow System

Date: 2019-04-04 14:35:45

Project Information:

Operator Name Chris Parker
Company Name Atlantic Coast Consulting
Project Name Plant Yates - AP 3
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 60 ft

Pump placement from TOC 55 ft

Well Information:

Well ID YGWC-36
Well diameter 2 in
Well Total Depth 60 ft
Screen Length 10 ft
Depth to Water ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 1.064164 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0 in
Total Volume Pumped 17 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	14:11:01	3899.92	19.08	5.73	355.09	6.34	--	1.51	166.32
Last 5	14:16:02	4200.92	19.03	5.74	355.24	5.78	--	1.50	164.62
Last 5	14:21:02	4500.91	19.01	5.74	355.11	5.21	--	1.47	163.14
Last 5	14:26:02	4800.90	18.92	5.74	354.91	4.98	--	1.46	162.74
Last 5	14:31:03	5101.90	18.89	5.74	354.45	4.57	--	1.47	164.34
Variance 0			-0.02	0.00	-0.12			-0.03	-1.48
Variance 1			-0.09	-0.00	-0.20			-0.01	-0.40
Variance 2			-0.03	-0.01	-0.46			0.01	1.61

Notes

Sampled at 14:35. Cloudy 60s.

Grab Samples

April 04, 2019

Joju Abraham
Georgia Power - Coal Combustion Residuals
2480 Maner Road
Atlanta, GA 30339

RE: Project: Plant Yates - Ash Pond 3
Pace Project No.: 2615736

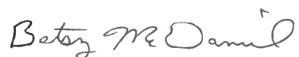
Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on March 06, 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.

This revised report replaces the report issued on 3/13/2019. The report has been revised to correct a sample ID per consultant request. No other changes have been made to this 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

This report shall not be reproduced, except in full,
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CERTIFICATIONS

Project: Plant Yates - Ash Pond 3

Pace Project No.: 2615736

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 - Ash Pond 3

Pace Project No.: 2615736

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2615736001	YGWA-4I	Water	03/04/19 14:35	03/06/19 16:13
2615736002	YGWA-5I	Water	03/04/19 13:17	03/06/19 16:13
2615736003	YGWA-5D	Water	03/04/19 12:03	03/06/19 16:13
2615736004	YGWA-17S	Water	03/05/19 11:38	03/06/19 16:13
2615736005	YGWA-18S	Water	03/05/19 16:53	03/06/19 16:13
2615736006	YGWA-18I	Water	03/06/19 11:25	03/06/19 16:13
2615736007	YGWA-20S	Water	03/05/19 13:40	03/06/19 16:13
2615736008	YGWA-21I	Water	03/05/19 12:05	03/06/19 16:13
2615736009	YGWC-23S	Water	03/06/19 13:15	03/06/19 16:13
2615736010	YGWC-24S	Water	03/05/19 14:55	03/06/19 16:13
2615736011	YGWC-33S	Water	03/06/19 13:00	03/06/19 16:13
2615736012	YGWC-36	Water	03/06/19 11:30	03/06/19 16:13
2615736013	EB-3-3-5-19	Water	03/05/19 11:00	03/06/19 16:13
2615736014	EB-4-3-6-19	Water	03/06/19 10:45	03/06/19 16:13
2615736015	DUP-3	Water	03/06/19 00:00	03/06/19 16:13
2615736016	DUP-4	Water	03/06/19 00:00	03/06/19 16:13
2615736017	FB-3-3-5-19	Water	03/05/19 13:30	03/06/19 16:13
2615736018	FB-4-3-6-19	Water	03/06/19 13:45	03/06/19 16:13

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: Plant Yates - Ash Pond 3
Pace Project No.: 2615736

Lab ID	Sample ID	Method	Analysts	Analytes Reported
2615736001	YGWA-4I	EPA 6020B	CSW	12
		EPA 7470A	DRB	1
		EPA 300.0	RLC	1
2615736002	YGWA-5I	EPA 6020B	CSW	12
		EPA 7470A	DRB	1
		EPA 300.0	RLC	1
2615736003	YGWA-5D	EPA 6020B	CSW	12
		EPA 7470A	DRB	1
		EPA 300.0	RLC	1
2615736004	YGWA-17S	EPA 6020B	CSW	12
		EPA 7470A	DRB	1
		EPA 300.0	RLC	1
2615736005	YGWA-18S	EPA 6020B	CSW	12
		EPA 7470A	DRB	1
		EPA 300.0	RLC	1
2615736006	YGWA-18I	EPA 6020B	CSW	12
		EPA 7470A	DRB	1
		EPA 300.0	RLC	1
2615736007	YGWA-20S	EPA 6020B	CSW	12
		EPA 7470A	DRB	1
		EPA 300.0	RLC	1
2615736008	YGWA-21I	EPA 6020B	CSW	12
		EPA 7470A	DRB	1
		EPA 300.0	RLC	1
2615736009	YGWC-23S	EPA 6020B	CSW	12
		EPA 7470A	DRB	1
		EPA 300.0	RLC	1
2615736010	YGWC-24S	EPA 6020B	CSW	12
		EPA 7470A	DRB	1
		EPA 300.0	RLC	1
2615736011	YGWC-33S	EPA 6020B	CSW	12
		EPA 7470A	DRB	1
		EPA 300.0	RLC	1
2615736012	YGWC-36	EPA 6020B	CSW	12
		EPA 7470A	DRB	1
		EPA 300.0	RLC	1
2615736013	EB-3-3-5-19	EPA 6020B	CSW	12

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SAMPLE ANALYTE COUNT

Project: Plant Yates - Ash Pond 3

Pace Project No.: 2615736

Lab ID	Sample ID	Method	Analysts	Analytes Reported
2615736014	EB-4-3-6-19	EPA 7470A	DRB	1
		EPA 300.0	RLC	1
		EPA 6020B	CSW	12
2615736015	DUP-3	EPA 7470A	DRB	1
		EPA 300.0	RLC	1
		EPA 6020B	CSW	12
2615736016	DUP-4	EPA 7470A	DRB	1
		EPA 300.0	RLC	1
		EPA 6020B	CSW	12
2615736017	FB-3-3-5-19	EPA 7470A	DRB	1
		EPA 300.0	RLC	1
		EPA 6020B	CSW	12
2615736018	FB-4-3-6-19	EPA 7470A	DRB	1
		EPA 300.0	RLC	1
		EPA 6020B	CSW	12

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Yates - Ash Pond 3
Pace Project No.: 2615736

Sample: YGWA-4I		Lab ID: 2615736001		Collected: 03/04/19 14:35		Received: 03/06/19 16:13		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	03/08/19 12:18	03/08/19 18:46	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	03/08/19 12:18	03/08/19 18:46	7440-38-2	
Barium	0.016	mg/L	0.010	0.00078	1	03/08/19 12:18	03/08/19 18:46	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	03/08/19 12:18	03/08/19 18:46	7440-41-7	
Cadmium	ND	mg/L	0.0010	0.000093	1	03/08/19 12:18	03/08/19 18:46	7440-43-9	
Chromium	ND	mg/L	0.010	0.0016	1	03/08/19 12:18	03/08/19 18:46	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	03/08/19 12:18	03/08/19 18:46	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	03/08/19 12:18	03/08/19 18:46	7439-92-1	
Lithium	0.015J	mg/L	0.050	0.00097	1	03/08/19 12:18	03/08/19 18:46	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	03/08/19 12:18	03/08/19 18:46	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	03/08/19 12:18	03/08/19 18:46	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	03/08/19 12:18	03/08/19 18:46	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00050	0.000036	1	03/08/19 08:56	03/08/19 14:30	7439-97-6	
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Fluoride	ND	mg/L	0.30	0.029	1		03/09/19 08:17	16984-48-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Yates - Ash Pond 3

Pace Project No.: 2615736

Sample: YGWA-5I Lab ID: 2615736002 Collected: 03/04/19 13:17 Received: 03/06/19 16:13 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	03/08/19 12:18	03/08/19 18:52	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	03/08/19 12:18	03/08/19 18:52	7440-38-2	
Barium	0.019	mg/L	0.010	0.00078	1	03/08/19 12:18	03/08/19 18:52	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	03/08/19 12:18	03/08/19 18:52	7440-41-7	
Cadmium	ND	mg/L	0.0010	0.000093	1	03/08/19 12:18	03/08/19 18:52	7440-43-9	
Chromium	ND	mg/L	0.010	0.0016	1	03/08/19 12:18	03/08/19 18:52	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	03/08/19 12:18	03/08/19 18:52	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	03/08/19 12:18	03/08/19 18:52	7439-92-1	
Lithium	0.0032J	mg/L	0.050	0.00097	1	03/08/19 12:18	03/08/19 18:52	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	03/08/19 12:18	03/08/19 18:52	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	03/08/19 12:18	03/08/19 18:52	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	03/08/19 12:18	03/08/19 18:52	7440-28-0	
7470 Mercury Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Mercury	ND	mg/L	0.00050	0.000036	1	03/08/19 08:56	03/08/19 14:44	7439-97-6	
300.0 IC Anions 28 Days Analytical Method: EPA 300.0									
Fluoride	ND	mg/L	0.30	0.029	1		03/09/19 09:27	16984-48-8	

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ANALYTICAL RESULTS

Project: Plant Yates - Ash Pond 3

Pace Project No.: 2615736

Sample: YGWA-5D		Lab ID: 2615736003		Collected: 03/04/19 12:03		Received: 03/06/19 16:13		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	03/08/19 12:18	03/08/19 18:58	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	03/08/19 12:18	03/08/19 18:58	7440-38-2	
Barium	0.0077J	mg/L	0.010	0.00078	1	03/08/19 12:18	03/08/19 18:58	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	03/08/19 12:18	03/08/19 18:58	7440-41-7	
Cadmium	ND	mg/L	0.0010	0.000093	1	03/08/19 12:18	03/08/19 18:58	7440-43-9	
Chromium	ND	mg/L	0.010	0.0016	1	03/08/19 12:18	03/08/19 18:58	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	03/08/19 12:18	03/08/19 18:58	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	03/08/19 12:18	03/08/19 18:58	7439-92-1	
Lithium	0.0065J	mg/L	0.050	0.00097	1	03/08/19 12:18	03/08/19 18:58	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	03/08/19 12:18	03/08/19 18:58	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	03/08/19 12:18	03/08/19 18:58	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	03/08/19 12:18	03/08/19 18:58	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00050	0.000036	1	03/08/19 08:56	03/08/19 14:51	7439-97-6	
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Fluoride	0.19J	mg/L	0.30	0.029	1		03/09/19 09:50	16984-48-8	

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ANALYTICAL RESULTS

Project: Plant Yates - Ash Pond 3

Pace Project No.: 2615736

Sample: YGWA-17S		Lab ID: 2615736004		Collected: 03/05/19 11:38	Received: 03/06/19 16:13	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	03/08/19 12:18	03/08/19 19:03	7440-36-0		
Arsenic	ND	mg/L	0.0050	0.00057	1	03/08/19 12:18	03/08/19 19:03	7440-38-2		
Barium	0.015	mg/L	0.010	0.00078	1	03/08/19 12:18	03/08/19 19:03	7440-39-3		
Beryllium	0.000091J	mg/L	0.0030	0.000050	1	03/08/19 12:18	03/08/19 19:03	7440-41-7		
Cadmium	ND	mg/L	0.0010	0.000093	1	03/08/19 12:18	03/08/19 19:03	7440-43-9		
Chromium	ND	mg/L	0.010	0.0016	1	03/08/19 12:18	03/08/19 19:03	7440-47-3		
Cobalt	ND	mg/L	0.010	0.00052	1	03/08/19 12:18	03/08/19 19:03	7440-48-4		
Lead	ND	mg/L	0.0050	0.00027	1	03/08/19 12:18	03/08/19 19:03	7439-92-1		
Lithium	ND	mg/L	0.050	0.00097	1	03/08/19 12:18	03/08/19 19:03	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.0019	1	03/08/19 12:18	03/08/19 19:03	7439-98-7		
Selenium	ND	mg/L	0.010	0.0014	1	03/08/19 12:18	03/08/19 19:03	7782-49-2		
Thallium	ND	mg/L	0.0010	0.00014	1	03/08/19 12:18	03/08/19 19:03	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.000036	1	03/08/19 08:56	03/08/19 14:53	7439-97-6		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Fluoride	ND	mg/L	0.30	0.029	1		03/09/19 10:13	16984-48-8		

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ANALYTICAL RESULTS

Project: Plant Yates - Ash Pond 3

Pace Project No.: 2615736

Sample: YGWA-18S		Lab ID: 2615736005		Collected: 03/05/19 16:53		Received: 03/06/19 16:13		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	03/08/19 12:18	03/08/19 19:09	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	03/08/19 12:18	03/08/19 19:09	7440-38-2	
Barium	0.020	mg/L	0.010	0.00078	1	03/08/19 12:18	03/08/19 19:09	7440-39-3	
Beryllium	0.000079J	mg/L	0.0030	0.000050	1	03/08/19 12:18	03/08/19 19:09	7440-41-7	
Cadmium	ND	mg/L	0.0010	0.000093	1	03/08/19 12:18	03/08/19 19:09	7440-43-9	
Chromium	ND	mg/L	0.010	0.0016	1	03/08/19 12:18	03/08/19 19:09	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	03/08/19 12:18	03/08/19 19:09	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	03/08/19 12:18	03/08/19 19:09	7439-92-1	
Lithium	0.0031J	mg/L	0.050	0.00097	1	03/08/19 12:18	03/08/19 19:09	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	03/08/19 12:18	03/08/19 19:09	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	03/08/19 12:18	03/08/19 19:09	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	03/08/19 12:18	03/08/19 19:09	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00050	0.000036	1	03/08/19 08:56	03/08/19 14:56	7439-97-6	
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Fluoride	ND	mg/L	0.30	0.029	1		03/09/19 10:37	16984-48-8	

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ANALYTICAL RESULTS

Project: Plant Yates - Ash Pond 3

Pace Project No.: 2615736

Sample: YGWA-18I		Lab ID: 2615736006		Collected: 03/06/19 11:25		Received: 03/06/19 16:13		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	03/08/19 12:18	03/08/19 19:15	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	03/08/19 12:18	03/08/19 19:15	7440-38-2	
Barium	0.024	mg/L	0.010	0.00078	1	03/08/19 12:18	03/08/19 19:15	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	03/08/19 12:18	03/08/19 19:15	7440-41-7	
Cadmium	ND	mg/L	0.0010	0.000093	1	03/08/19 12:18	03/08/19 19:15	7440-43-9	
Chromium	ND	mg/L	0.010	0.0016	1	03/08/19 12:18	03/08/19 19:15	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	03/08/19 12:18	03/08/19 19:15	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	03/08/19 12:18	03/08/19 19:15	7439-92-1	
Lithium	0.0033J	mg/L	0.050	0.00097	1	03/08/19 12:18	03/08/19 19:15	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	03/08/19 12:18	03/08/19 19:15	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	03/08/19 12:18	03/08/19 19:15	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	03/08/19 12:18	03/08/19 19:15	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00050	0.000036	1	03/08/19 08:56	03/08/19 14:58	7439-97-6	
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Fluoride	ND	mg/L	0.30	0.029	1		03/09/19 11:00	16984-48-8	

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ANALYTICAL RESULTS

Project: Plant Yates - Ash Pond 3

Pace Project No.: 2615736

Sample: YGWA-20S		Lab ID: 2615736007		Collected: 03/05/19 13:40		Received: 03/06/19 16:13		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	03/08/19 12:18	03/08/19 19:20	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	03/08/19 12:18	03/08/19 19:20	7440-38-2	
Barium	0.016	mg/L	0.010	0.00078	1	03/08/19 12:18	03/08/19 19:20	7440-39-3	
Beryllium	0.00011J	mg/L	0.0030	0.000050	1	03/08/19 12:18	03/08/19 19:20	7440-41-7	
Cadmium	ND	mg/L	0.0010	0.000093	1	03/08/19 12:18	03/08/19 19:20	7440-43-9	
Chromium	ND	mg/L	0.010	0.0016	1	03/08/19 12:18	03/08/19 19:20	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	03/08/19 12:18	03/08/19 19:20	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	03/08/19 12:18	03/08/19 19:20	7439-92-1	
Lithium	ND	mg/L	0.050	0.00097	1	03/08/19 12:18	03/08/19 19:20	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	03/08/19 12:18	03/08/19 19:20	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	03/08/19 12:18	03/08/19 19:20	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	03/08/19 12:18	03/08/19 19:20	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00050	0.000036	1	03/08/19 08:56	03/08/19 15:01	7439-97-6	
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Fluoride	ND	mg/L	0.30	0.029	1		03/09/19 11:23	16984-48-8	

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ANALYTICAL RESULTS

Project: Plant Yates - Ash Pond 3

Pace Project No.: 2615736

Sample: YGWA-211		Lab ID: 2615736008		Collected: 03/05/19 12:05		Received: 03/06/19 16:13		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	0.0011J	mg/L	0.0030	0.00078	1	03/08/19 12:18	03/08/19 19:26	7440-36-0	
Arsenic	0.0013J	mg/L	0.0050	0.00057	1	03/08/19 12:18	03/08/19 19:26	7440-38-2	
Barium	0.011	mg/L	0.010	0.00078	1	03/08/19 12:18	03/08/19 19:26	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	03/08/19 12:18	03/08/19 19:26	7440-41-7	
Cadmium	ND	mg/L	0.0010	0.000093	1	03/08/19 12:18	03/08/19 19:26	7440-43-9	
Chromium	ND	mg/L	0.010	0.0016	1	03/08/19 12:18	03/08/19 19:26	7440-47-3	
Cobalt	0.0039J	mg/L	0.010	0.00052	1	03/08/19 12:18	03/08/19 19:26	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	03/08/19 12:18	03/08/19 19:26	7439-92-1	
Lithium	0.0053J	mg/L	0.050	0.00097	1	03/08/19 12:18	03/08/19 19:26	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	03/08/19 12:18	03/08/19 19:26	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	03/08/19 12:18	03/08/19 19:26	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	03/08/19 12:18	03/08/19 19:26	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00050	0.000036	1	03/08/19 08:56	03/08/19 15:03	7439-97-6	
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Fluoride	0.32	mg/L	0.30	0.029	1		03/09/19 11:46	16984-48-8	

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ANALYTICAL RESULTS

Project: Plant Yates - Ash Pond 3

Pace Project No.: 2615736

Sample: YGWC-23S		Lab ID: 2615736009		Collected: 03/06/19 13:15		Received: 03/06/19 16:13		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	03/08/19 12:18	03/08/19 19:43	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	03/08/19 12:18	03/08/19 19:43	7440-38-2	
Barium	0.019	mg/L	0.010	0.00078	1	03/08/19 12:18	03/08/19 19:43	7440-39-3	
Beryllium	0.000066J	mg/L	0.0030	0.000050	1	03/08/19 12:18	03/08/19 19:43	7440-41-7	
Cadmium	ND	mg/L	0.0010	0.000093	1	03/08/19 12:18	03/08/19 19:43	7440-43-9	
Chromium	ND	mg/L	0.010	0.0016	1	03/08/19 12:18	03/08/19 19:43	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	03/08/19 12:18	03/08/19 19:43	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	03/08/19 12:18	03/08/19 19:43	7439-92-1	
Lithium	0.0025J	mg/L	0.050	0.00097	1	03/08/19 12:18	03/08/19 19:43	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	03/08/19 12:18	03/08/19 19:43	7439-98-7	
Selenium	0.019	mg/L	0.010	0.0014	1	03/08/19 12:18	03/08/19 19:43	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	03/08/19 12:18	03/08/19 19:43	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00050	0.000036	1	03/08/19 08:56	03/08/19 15:05	7439-97-6	
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Fluoride	ND	mg/L	0.30	0.029	1		03/09/19 13:42	16984-48-8	

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ANALYTICAL RESULTS

Project: Plant Yates - Ash Pond 3

Pace Project No.: 2615736

Sample: YGWC-24S		Lab ID: 2615736010		Collected: 03/05/19 14:55		Received: 03/06/19 16:13		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	03/08/19 12:18	03/08/19 19:49	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	03/08/19 12:18	03/08/19 19:49	7440-38-2	
Barium	0.019	mg/L	0.010	0.00078	1	03/08/19 12:18	03/08/19 19:49	7440-39-3	
Beryllium	0.00016J	mg/L	0.0030	0.000050	1	03/08/19 12:18	03/08/19 19:49	7440-41-7	
Cadmium	ND	mg/L	0.0010	0.000093	1	03/08/19 12:18	03/08/19 19:49	7440-43-9	
Chromium	ND	mg/L	0.010	0.0016	1	03/08/19 12:18	03/08/19 19:49	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	03/08/19 12:18	03/08/19 19:49	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	03/08/19 12:18	03/08/19 19:49	7439-92-1	
Lithium	ND	mg/L	0.050	0.00097	1	03/08/19 12:18	03/08/19 19:49	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	03/08/19 12:18	03/08/19 19:49	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	03/08/19 12:18	03/08/19 19:49	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	03/08/19 12:18	03/08/19 19:49	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00050	0.000036	1	03/08/19 08:56	03/08/19 15:08	7439-97-6	
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Fluoride	ND	mg/L	0.30	0.029	1		03/09/19 14:06	16984-48-8	

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ANALYTICAL RESULTS

Project: Plant Yates - Ash Pond 3

Pace Project No.: 2615736

Sample: YGWC-33S		Lab ID: 2615736011		Collected: 03/06/19 13:00		Received: 03/06/19 16:13		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	03/08/19 12:18	03/08/19 19:55	7440-36-0	
Arsenic	0.0022J	mg/L	0.0050	0.00057	1	03/08/19 12:18	03/08/19 19:55	7440-38-2	
Barium	0.012	mg/L	0.010	0.00078	1	03/08/19 12:18	03/08/19 19:55	7440-39-3	
Beryllium	0.023	mg/L	0.0030	0.000050	1	03/08/19 12:18	03/08/19 19:55	7440-41-7	
Cadmium	0.0030	mg/L	0.0010	0.000093	1	03/08/19 12:18	03/08/19 19:55	7440-43-9	
Chromium	ND	mg/L	0.010	0.0016	1	03/08/19 12:18	03/08/19 19:55	7440-47-3	
Cobalt	0.028	mg/L	0.010	0.00052	1	03/08/19 12:18	03/08/19 19:55	7440-48-4	
Lead	0.0012J	mg/L	0.0050	0.00027	1	03/08/19 12:18	03/08/19 19:55	7439-92-1	
Lithium	0.033J	mg/L	0.050	0.00097	1	03/08/19 12:18	03/08/19 19:55	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	03/08/19 12:18	03/08/19 19:55	7439-98-7	
Selenium	0.013	mg/L	0.010	0.0014	1	03/08/19 12:18	03/08/19 19:55	7782-49-2	
Thallium	0.00016J	mg/L	0.0010	0.00014	1	03/08/19 12:18	03/08/19 19:55	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00050	0.000036	1	03/08/19 08:56	03/08/19 15:10	7439-97-6	
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Fluoride	0.49	mg/L	0.30	0.029	1		03/09/19 14:52	16984-48-8	

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ANALYTICAL RESULTS

Project: Plant Yates - Ash Pond 3

Pace Project No.: 2615736

Sample: YGWC-36		Lab ID: 2615736012		Collected: 03/06/19 11:30		Received: 03/06/19 16:13		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	0.0011J	mg/L	0.0030	0.00078	1	03/08/19 12:18	03/08/19 20:18	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	03/08/19 12:18	03/08/19 20:18	7440-38-2	
Barium	0.041	mg/L	0.010	0.00078	1	03/08/19 12:18	03/08/19 20:18	7440-39-3	
Beryllium	0.00029J	mg/L	0.0030	0.000050	1	03/08/19 12:18	03/08/19 20:18	7440-41-7	
Cadmium	0.00015J	mg/L	0.0010	0.000093	1	03/08/19 12:18	03/08/19 20:18	7440-43-9	
Chromium	ND	mg/L	0.010	0.0016	1	03/08/19 12:18	03/08/19 20:18	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	03/08/19 12:18	03/08/19 20:18	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	03/08/19 12:18	03/08/19 20:18	7439-92-1	
Lithium	0.0057J	mg/L	0.050	0.00097	1	03/08/19 12:18	03/08/19 20:18	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	03/08/19 12:18	03/08/19 20:18	7439-98-7	
Selenium	0.0033J	mg/L	0.010	0.0014	1	03/08/19 12:18	03/08/19 20:18	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	03/08/19 12:18	03/08/19 20:18	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00050	0.000036	1	03/08/19 08:56	03/08/19 15:12	7439-97-6	
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Fluoride	ND	mg/L	0.30	0.029	1		03/09/19 15:15	16984-48-8	

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ANALYTICAL RESULTS

Project: Plant Yates - Ash Pond 3

Pace Project No.: 2615736

Sample: EB-3-3-5-19		Lab ID: 2615736013		Collected: 03/05/19 11:00		Received: 03/06/19 16:13		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	03/08/19 12:18	03/08/19 20:23	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	03/08/19 12:18	03/08/19 20:23	7440-38-2	
Barium	ND	mg/L	0.010	0.00078	1	03/08/19 12:18	03/08/19 20:23	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	03/08/19 12:18	03/08/19 20:23	7440-41-7	
Cadmium	ND	mg/L	0.0010	0.000093	1	03/08/19 12:18	03/08/19 20:23	7440-43-9	
Chromium	ND	mg/L	0.010	0.0016	1	03/08/19 12:18	03/08/19 20:23	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	03/08/19 12:18	03/08/19 20:23	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	03/08/19 12:18	03/08/19 20:23	7439-92-1	
Lithium	ND	mg/L	0.050	0.00097	1	03/08/19 12:18	03/08/19 20:23	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	03/08/19 12:18	03/08/19 20:23	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	03/08/19 12:18	03/08/19 20:23	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	03/08/19 12:18	03/08/19 20:23	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00050	0.000036	1	03/08/19 08:56	03/08/19 15:20	7439-97-6	
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Fluoride	ND	mg/L	0.30	0.029	1		03/09/19 15:38	16984-48-8	

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ANALYTICAL RESULTS

Project: Plant Yates - Ash Pond 3

Pace Project No.: 2615736

Sample: EB-4-3-6-19		Lab ID: 2615736014		Collected: 03/06/19 10:45		Received: 03/06/19 16:13		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	03/08/19 12:18	03/08/19 20:29	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	03/08/19 12:18	03/08/19 20:29	7440-38-2	
Barium	ND	mg/L	0.010	0.00078	1	03/08/19 12:18	03/08/19 20:29	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	03/08/19 12:18	03/08/19 20:29	7440-41-7	
Cadmium	ND	mg/L	0.0010	0.000093	1	03/08/19 12:18	03/08/19 20:29	7440-43-9	
Chromium	ND	mg/L	0.010	0.0016	1	03/08/19 12:18	03/08/19 20:29	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	03/08/19 12:18	03/08/19 20:29	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	03/08/19 12:18	03/08/19 20:29	7439-92-1	
Lithium	ND	mg/L	0.050	0.00097	1	03/08/19 12:18	03/08/19 20:29	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	03/08/19 12:18	03/08/19 20:29	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	03/08/19 12:18	03/08/19 20:29	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	03/08/19 12:18	03/08/19 20:29	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00050	0.000036	1	03/08/19 08:56	03/08/19 15:22	7439-97-6	
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Fluoride	ND	mg/L	0.30	0.029	1		03/09/19 16:02	16984-48-8	

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ANALYTICAL RESULTS

Project: Plant Yates - Ash Pond 3

Pace Project No.: 2615736

Sample: DUP-3		Lab ID: 2615736015		Collected: 03/06/19 00:00		Received: 03/06/19 16:13		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	03/08/19 12:18	03/08/19 20:35	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	03/08/19 12:18	03/08/19 20:35	7440-38-2	
Barium	0.019	mg/L	0.010	0.00078	1	03/08/19 12:18	03/08/19 20:35	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	03/08/19 12:18	03/08/19 20:35	7440-41-7	
Cadmium	ND	mg/L	0.0010	0.000093	1	03/08/19 12:18	03/08/19 20:35	7440-43-9	
Chromium	ND	mg/L	0.010	0.0016	1	03/08/19 12:18	03/08/19 20:35	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	03/08/19 12:18	03/08/19 20:35	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	03/08/19 12:18	03/08/19 20:35	7439-92-1	
Lithium	0.0032J	mg/L	0.050	0.00097	1	03/08/19 12:18	03/08/19 20:35	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	03/08/19 12:18	03/08/19 20:35	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	03/08/19 12:18	03/08/19 20:35	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	03/08/19 12:18	03/08/19 20:35	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00050	0.000036	1	03/08/19 08:56	03/08/19 15:24	7439-97-6	
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Fluoride	ND	mg/L	0.30	0.029	1		03/09/19 16:25	16984-48-8	

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ANALYTICAL RESULTS

Project: Plant Yates - Ash Pond 3
Pace Project No.: 2615736

Sample: DUP-4		Lab ID: 2615736016		Collected: 03/06/19 00:00		Received: 03/06/19 16:13		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	03/08/19 12:18	03/08/19 20:52	7440-36-0		
Arsenic	0.0023J	mg/L	0.0050	0.00057	1	03/08/19 12:18	03/08/19 20:52	7440-38-2		
Barium	0.012	mg/L	0.010	0.00078	1	03/08/19 12:18	03/08/19 20:52	7440-39-3		
Beryllium	0.024	mg/L	0.0030	0.000050	1	03/08/19 12:18	03/08/19 20:52	7440-41-7		
Cadmium	0.0030	mg/L	0.0010	0.000093	1	03/08/19 12:18	03/08/19 20:52	7440-43-9		
Chromium	ND	mg/L	0.010	0.0016	1	03/08/19 12:18	03/08/19 20:52	7440-47-3		
Cobalt	0.029	mg/L	0.010	0.00052	1	03/08/19 12:18	03/08/19 20:52	7440-48-4		
Lead	0.0013J	mg/L	0.0050	0.00027	1	03/08/19 12:18	03/08/19 20:52	7439-92-1		
Lithium	0.035J	mg/L	0.050	0.00097	1	03/08/19 12:18	03/08/19 20:52	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.0019	1	03/08/19 12:18	03/08/19 20:52	7439-98-7		
Selenium	0.014	mg/L	0.010	0.0014	1	03/08/19 12:18	03/08/19 20:52	7782-49-2		
Thallium	0.00016J	mg/L	0.0010	0.00014	1	03/08/19 12:18	03/08/19 20:52	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.000036	1	03/08/19 08:56	03/08/19 15:27	7439-97-6		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Fluoride	0.40	mg/L	0.30	0.029	1		03/09/19 16:48	16984-48-8		

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ANALYTICAL RESULTS

Project: Plant Yates - Ash Pond 3

Pace Project No.: 2615736

Sample: FB-3-3-5-19		Lab ID: 2615736017		Collected: 03/05/19 13:30		Received: 03/06/19 16:13		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	03/08/19 12:18	03/08/19 20:58	7440-36-0		
Arsenic	ND	mg/L	0.0050	0.00057	1	03/08/19 12:18	03/08/19 20:58	7440-38-2		
Barium	ND	mg/L	0.010	0.00078	1	03/08/19 12:18	03/08/19 20:58	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000050	1	03/08/19 12:18	03/08/19 20:58	7440-41-7		
Cadmium	ND	mg/L	0.0010	0.000093	1	03/08/19 12:18	03/08/19 20:58	7440-43-9		
Chromium	ND	mg/L	0.010	0.0016	1	03/08/19 12:18	03/08/19 20:58	7440-47-3		
Cobalt	ND	mg/L	0.010	0.00052	1	03/08/19 12:18	03/08/19 20:58	7440-48-4		
Lead	ND	mg/L	0.0050	0.00027	1	03/08/19 12:18	03/08/19 20:58	7439-92-1		
Lithium	ND	mg/L	0.050	0.00097	1	03/08/19 12:18	03/08/19 20:58	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.0019	1	03/08/19 12:18	03/08/19 20:58	7439-98-7		
Selenium	ND	mg/L	0.010	0.0014	1	03/08/19 12:18	03/08/19 20:58	7782-49-2		
Thallium	ND	mg/L	0.0010	0.00014	1	03/08/19 12:18	03/08/19 20:58	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.000036	1	03/08/19 08:56	03/08/19 15:29	7439-97-6		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Fluoride	ND	mg/L	0.30	0.029	1		03/09/19 17:12	16984-48-8		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Yates - Ash Pond 3

Pace Project No.: 2615736

Sample: FB-4-3-6-19		Lab ID: 2615736018		Collected: 03/06/19 13:45		Received: 03/06/19 16:13		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	03/08/19 12:18	03/08/19 21:04	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	03/08/19 12:18	03/08/19 21:04	7440-38-2	
Barium	ND	mg/L	0.010	0.00078	1	03/08/19 12:18	03/08/19 21:04	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	03/08/19 12:18	03/08/19 21:04	7440-41-7	
Cadmium	ND	mg/L	0.0010	0.000093	1	03/08/19 12:18	03/08/19 21:04	7440-43-9	
Chromium	ND	mg/L	0.010	0.0016	1	03/08/19 12:18	03/08/19 21:04	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	03/08/19 12:18	03/08/19 21:04	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	03/08/19 12:18	03/08/19 21:04	7439-92-1	
Lithium	ND	mg/L	0.050	0.00097	1	03/08/19 12:18	03/08/19 21:04	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	03/08/19 12:18	03/08/19 21:04	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	03/08/19 12:18	03/08/19 21:04	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	03/08/19 12:18	03/08/19 21:04	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00050	0.000036	1	03/08/19 08:56	03/08/19 15:31	7439-97-6	
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Fluoride	ND	mg/L	0.30	0.029	1		03/09/19 19:13	16984-48-8	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Yates - Ash Pond 3

Pace Project No.: 2615736

QC Batch:	23871	Analysis Method:	EPA 7470A
QC Batch Method:	EPA 7470A	Analysis Description:	7470 Mercury
Associated Lab Samples:	2615736001, 2615736002, 2615736003, 2615736004, 2615736005, 2615736006, 2615736007, 2615736008, 2615736009, 2615736010, 2615736011, 2615736012, 2615736013, 2615736014, 2615736015, 2615736016, 2615736017, 2615736018		

METHOD BLANK:	107019	Matrix:	Water
Associated Lab Samples:	2615736001, 2615736002, 2615736003, 2615736004, 2615736005, 2615736006, 2615736007, 2615736008, 2615736009, 2615736010, 2615736011, 2615736012, 2615736013, 2615736014, 2615736015, 2615736016, 2615736017, 2615736018		

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00050	0.000036	03/08/19 14:25	

LABORATORY CONTROL SAMPLE:	107020					
Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.0025	0.0024	96	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE:	107021	107022										
Parameter	Units	2615736001 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	0.0025	0.0025	0.0025	0.0025	98	100	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.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Yates - Ash Pond 3
Pace Project No.: 2615736

QC Batch: 23903 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020B MET
Associated Lab Samples: 2615736001, 2615736002, 2615736003, 2615736004, 2615736005, 2615736006, 2615736007, 2615736008, 2615736009, 2615736010, 2615736011, 2615736012, 2615736013, 2615736014, 2615736015, 2615736016, 2615736017, 2615736018

METHOD BLANK: 107116 Matrix: Water
Associated Lab Samples: 2615736001, 2615736002, 2615736003, 2615736004, 2615736005, 2615736006, 2615736007, 2615736008, 2615736009, 2615736010, 2615736011, 2615736012, 2615736013, 2615736014, 2615736015, 2615736016, 2615736017, 2615736018

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00078	03/08/19 18:35	
Arsenic	mg/L	ND	0.0050	0.00057	03/08/19 18:35	
Barium	mg/L	ND	0.010	0.00078	03/08/19 18:35	
Beryllium	mg/L	ND	0.0030	0.000050	03/08/19 18:35	
Cadmium	mg/L	ND	0.0010	0.000093	03/08/19 18:35	
Chromium	mg/L	ND	0.010	0.0016	03/08/19 18:35	
Cobalt	mg/L	ND	0.010	0.00052	03/08/19 18:35	
Lead	mg/L	ND	0.0050	0.00027	03/08/19 18:35	
Lithium	mg/L	ND	0.050	0.00097	03/08/19 18:35	
Molybdenum	mg/L	ND	0.010	0.0019	03/08/19 18:35	
Selenium	mg/L	ND	0.010	0.0014	03/08/19 18:35	
Thallium	mg/L	ND	0.0010	0.00014	03/08/19 18:35	

LABORATORY CONTROL SAMPLE: 107117

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.098	98	80-120	
Arsenic	mg/L	0.1	0.095	95	80-120	
Barium	mg/L	0.1	0.097	97	80-120	
Beryllium	mg/L	0.1	0.099	99	80-120	
Cadmium	mg/L	0.1	0.099	99	80-120	
Chromium	mg/L	0.1	0.097	97	80-120	
Cobalt	mg/L	0.1	0.095	95	80-120	
Lead	mg/L	0.1	0.092	92	80-120	
Lithium	mg/L	0.1	0.10	100	80-120	
Molybdenum	mg/L	0.1	0.095	95	80-120	
Selenium	mg/L	0.1	0.10	100	80-120	
Thallium	mg/L	0.1	0.091	91	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 107118 107119

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		2615736011 Result	Spike Conc.	Spike Conc.	MS Result						
Antimony	mg/L	ND	0.1	0.1	0.10	0.10	103	102	75-125	2	20
Arsenic	mg/L	0.0022J	0.1	0.1	0.10	0.10	101	100	75-125	1	20

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QUALITY CONTROL DATA

Project: Plant Yates - Ash Pond 3

Pace Project No.: 2615736

Parameter	Units	MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 107118		107119		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	RPD	Qual
		2615736011 Result	MS Spike Conc.	MSD Spike Conc.									
Barium	mg/L	0.012	0.1	0.1	0.11	0.11	99	97	75-125	2	20		
Beryllium	mg/L	0.023	0.1	0.1	0.11	0.11	84	82	75-125	2	20		
Cadmium	mg/L	0.0030	0.1	0.1	0.10	0.10	97	98	75-125	1	20		
Chromium	mg/L	ND	0.1	0.1	0.098	0.097	97	96	75-125	0	20		
Cobalt	mg/L	0.028	0.1	0.1	0.12	0.12	91	94	75-125	2	20		
Lead	mg/L	0.0012J	0.1	0.1	0.080	0.081	79	79	75-125	1	20		
Lithium	mg/L	0.033J	0.1	0.1	0.12	0.12	87	86	75-125	1	20		
Molybdenum	mg/L	ND	0.1	0.1	0.10	0.10	103	102	75-125	1	20		
Selenium	mg/L	0.013	0.1	0.1	0.12	0.11	103	102	75-125	0	20		
Thallium	mg/L	0.00016J	0.1	0.1	0.081	0.080	81	80	75-125	1	20		

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QUALITY CONTROL DATA

Project: Plant Yates - Ash Pond 3

Pace Project No.: 2615736

QC Batch: 23825 Analysis Method: EPA 300.0
 QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
 Associated Lab Samples: 2615736001, 2615736002, 2615736003, 2615736004, 2615736005, 2615736006, 2615736007, 2615736008,
 2615736009, 2615736010, 2615736011, 2615736012, 2615736013, 2615736014, 2615736015, 2615736016,
 2615736017, 2615736018

METHOD BLANK: 106700 Matrix: Water
 Associated Lab Samples: 2615736001, 2615736002, 2615736003, 2615736004, 2615736005, 2615736006, 2615736007, 2615736008,
 2615736009, 2615736010, 2615736011, 2615736012, 2615736013, 2615736014, 2615736015, 2615736016,
 2615736017, 2615736018

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Fluoride	mg/L	ND	0.30	0.029	03/09/19 07:31	

LABORATORY CONTROL SAMPLE: 106701

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Fluoride	mg/L	10	9.9	99	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 106702 106703

Parameter	Units	2615736001 Result	MS		MSD		% Rec		% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	% Rec	% Rec				
Fluoride	mg/L	ND	10	10	10.0	10.1	100	101	90-110	0	15	

MATRIX SPIKE SAMPLE: 106704

Parameter	Units	2615736002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Fluoride	mg/L	ND	10	10.4	104	90-110	

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REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: Plant Yates - Ash Pond 3

Pace Project No.: 2615736

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.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Yates - Ash Pond 3
Pace Project No.: 2615736

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2615736001	YGWA-4I	EPA 3005A	23903	EPA 6020B	23932
2615736002	YGWA-5I	EPA 3005A	23903	EPA 6020B	23932
2615736003	YGWA-5D	EPA 3005A	23903	EPA 6020B	23932
2615736004	YGWA-17S	EPA 3005A	23903	EPA 6020B	23932
2615736005	YGWA-18S	EPA 3005A	23903	EPA 6020B	23932
2615736006	YGWA-18I	EPA 3005A	23903	EPA 6020B	23932
2615736007	YGWA-20S	EPA 3005A	23903	EPA 6020B	23932
2615736008	YGWA-21I	EPA 3005A	23903	EPA 6020B	23932
2615736009	YGWC-23S	EPA 3005A	23903	EPA 6020B	23932
2615736010	YGWC-24S	EPA 3005A	23903	EPA 6020B	23932
2615736011	YGWC-33S	EPA 3005A	23903	EPA 6020B	23932
2615736012	YGWC-36	EPA 3005A	23903	EPA 6020B	23932
2615736013	EB-3-3-5-19	EPA 3005A	23903	EPA 6020B	23932
2615736014	EB-4-3-6-19	EPA 3005A	23903	EPA 6020B	23932
2615736015	DUP-3	EPA 3005A	23903	EPA 6020B	23932
2615736016	DUP-4	EPA 3005A	23903	EPA 6020B	23932
2615736017	FB-3-3-5-19	EPA 3005A	23903	EPA 6020B	23932
2615736018	FB-4-3-6-19	EPA 3005A	23903	EPA 6020B	23932
2615736001	YGWA-4I	EPA 7470A	23871	EPA 7470A	23922
2615736002	YGWA-5I	EPA 7470A	23871	EPA 7470A	23922
2615736003	YGWA-5D	EPA 7470A	23871	EPA 7470A	23922
2615736004	YGWA-17S	EPA 7470A	23871	EPA 7470A	23922
2615736005	YGWA-18S	EPA 7470A	23871	EPA 7470A	23922
2615736006	YGWA-18I	EPA 7470A	23871	EPA 7470A	23922
2615736007	YGWA-20S	EPA 7470A	23871	EPA 7470A	23922
2615736008	YGWA-21I	EPA 7470A	23871	EPA 7470A	23922
2615736009	YGWC-23S	EPA 7470A	23871	EPA 7470A	23922
2615736010	YGWC-24S	EPA 7470A	23871	EPA 7470A	23922
2615736011	YGWC-33S	EPA 7470A	23871	EPA 7470A	23922
2615736012	YGWC-36	EPA 7470A	23871	EPA 7470A	23922
2615736013	EB-3-3-5-19	EPA 7470A	23871	EPA 7470A	23922
2615736014	EB-4-3-6-19	EPA 7470A	23871	EPA 7470A	23922
2615736015	DUP-3	EPA 7470A	23871	EPA 7470A	23922
2615736016	DUP-4	EPA 7470A	23871	EPA 7470A	23922
2615736017	FB-3-3-5-19	EPA 7470A	23871	EPA 7470A	23922
2615736018	FB-4-3-6-19	EPA 7470A	23871	EPA 7470A	23922
2615736001	YGWA-4I	EPA 300.0	23825		
2615736002	YGWA-5I	EPA 300.0	23825		
2615736003	YGWA-5D	EPA 300.0	23825		
2615736004	YGWA-17S	EPA 300.0	23825		
2615736005	YGWA-18S	EPA 300.0	23825		
2615736006	YGWA-18I	EPA 300.0	23825		
2615736007	YGWA-20S	EPA 300.0	23825		
2615736008	YGWA-21I	EPA 300.0	23825		
2615736009	YGWC-23S	EPA 300.0	23825		
2615736010	YGWC-24S	EPA 300.0	23825		
2615736011	YGWC-33S	EPA 300.0	23825		
2615736012	YGWC-36	EPA 300.0	23825		

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Yates - Ash Pond 3

Pace Project No.: 2615736

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2615736013	EB-3-3-5-19	EPA 300.0	23825		
2615736014	EB-4-3-6-19	EPA 300.0	23825		
2615736015	DUP-3	EPA 300.0	23825		
2615736016	DUP-4	EPA 300.0	23825		
2615736017	FB-3-3-5-19	EPA 300.0	23825		
2615736018	FB-4-3-6-19	EPA 300.0	23825		

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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

PAGE: 2 OF 2

CLIENT NAME: Georgia Power		ANALYSIS REQUESTED		CONTAINER TYPE		PRESERVATION	
CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER: 241 Ralph McGill Blvd SE B10185 Atlanta, GA 30308 404-508-7239		P P P P P P P P		P - PLASTIC A - AMBER GLASS G - CLEAR GLASS V - VOA VIAL S - STERILE O - OTHER		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		# of CONTAINERS		CONTAINER TYPE		PRESERVATION	
REQUESTED COMPLETION DATE:		↓		P 3		1 - HCl, ≤6°C	
PROJECT NAME/STATE: Plant Yates - Ash Pond 3		METS APP. IV (EPA 6020/7470)		P 7		2 - H ₂ SO ₄ , ≤6°C	
PROJECT #:		Fluoride		P 3		3 - HNO ₃	
Collection DATE		SAMPLE IDENTIFICATION		P 7		4 - NaOH, ≤6°C	
3-5-19 1100		✓ EB-3-3-5-19		P 3		5 - NaOH/ZnAc, ≤6°C	
3-6-19 1045		✓ EB-4-3-6-19		P 3		6 - Na ₂ S ₂ O ₃ , ≤6°C	
3-6-19 —		✓ Dup-3		P 3		7 - ≤6°C not frozen	
3-6-19 —		✓ Dup-4		P 3		MATRIX CODES:	
3-5-19 1330		✓ FB-3-3-5-19		P 3		DW - DRINKING WATER S - SOIL	
3-6-19 1345		✓ FB-4-3-6-19		P 3		MW - WASTEWATER SL - SLUDGE	
				P 3		GW - GROUNDWATER SD - SOLID	
				P 3		SW - SURFACE WATER A - AIR	
				P 3		ST - STORM WATER L - LIQUID	
				P 3		W - WATER P - PRODUCT	
				P 3		REMARKS/ADDITIONAL INFORMATION	
SAMPLED BY AND TITLE: C. Buckner, H.A.W. / ACC		RELINQUISHED BY: <i>[Signature]</i>		DATE/TIME: 3-6-19 / 1613			
RECEIVED BY: <i>[Signature]</i>		RELINQUISHED BY: <i>[Signature]</i>		DATE/TIME: 3-6-19 / 1613			
RECEIVED BY LAB: <i>[Signature]</i>		SAMPLE SHIPPED VIA: UPS		DATE/TIME: 3-6-19 / 1613		NO# : 2615736	
YES NO NA		COURIER		OTHER		2615736	
YES NO NA		# of Coolers		OTHER		2615736	
YES NO NA		Broken		Not Present		2615736	
YES NO NA		Country Seal		Cooler ID:		2615736	
YES NO NA		Ministry		Name:		2615736	



CHAIN OF CUSTODY RECORD

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

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:
PROJECT NAME/STATE: Plant Yates - Ash Pond 3
PROJECT #:

Table with columns: Collection DATE, Collection TIME, MATRIX CODE, COR, SAMPLE IDENTIFICATION. Rows include samples Y6WA-41, Y6WA-5T, Y6WA-5D, Y6WA-17S, Y6WA-18S, Y6WA-18T, Y6WA-20S, Y6WA-21E, Y6WC-23S, Y6WC-24S, Y6WC-33S, Y6WC-36.

Table with columns: CONTAINER TYPE, ANALYSIS REQUESTED, CONTAINER TYPE, PRESERVATION, MATRIX CODES, REMARKS/ADDITIONAL INFORMATION. Includes analysis requests for Metals App. IV, Flouride, and Radium 226 & 228.

RELINQUISHED BY: [Signature] DATE/TIME: 3-6-19 / 1613
RECEIVED BY: [Signature] DATE/TIME: 3-6-19 / 1613

RECEIVED BY LAB: [Signature] DATE/TIME: 3/6/19 / 1613
SHIPMENT: [Signature] DATE/TIME: 3/6/19 / 1613

W0#: 2615736
PM: BM Due Date: 03/13/19
CLIENT: GAPower-CCR
APPROVED: [Signature] 32 of 33



Sample Condition Upon Receipt

WO#: 2615736

Client Name: Georgia Power - CCR

PM: BM Due Date: 03/13/19
CLIENT: GAPower-CCR

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 082 Type of Ice: Wet Blue None

Cooler Temperature 2.4°C Biological Tissue is Frozen: Yes No

Samples on ice, cooling process has begun
Date and Initials of person examining contents: 3/7/19 JW

Table with 16 rows of checklist items including Chain of Custody Present, Chain of Custody Filled Out, Chain of Custody Relinquished, Sampler Name & Signature on COC, Samples Arrived within Hold Time, Short Hold Time Analysis (<72hr), Rush Turn Around Time Requested, Sufficient Volume, Correct Containers Used, Containers Intact, Filtered volume received for Dissolved tests, Sample Labels match COC, All containers needing preservation have been checked, All containers needing preservation are found to be in compliance with EPA recommendation, exceptions: VOA, coliform, TOC, O&G, WI-DRO (water), Samples checked for dechlorination, Headspace in VOA Vials (>6mm), Trip Blank Present, Trip Blank Custody Seals Present, 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)

April 04, 2019

Joju Abraham
Georgia Power - Coal Combustion Residuals
2480 Maner Road
Atlanta, GA 30339

RE: Project: Plant Yates - Ash Pond 3
Pace Project No.: 2615739

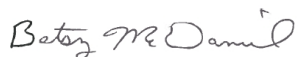
Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on March 06, 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.

This revised report replaces the report issued on 4/2/2019. The report has been revised to correct a sample ID per consultant request. No other changes have been made to this 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 - Ash Pond 3

Pace Project No.: 2615739

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 - Ash Pond 3

Pace Project No.: 2615739

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2615739001	YGWA-4I	Water	03/04/19 14:35	03/06/19 16:13
2615739002	YGWA-5I	Water	03/04/19 13:17	03/06/19 16:13
2615739003	YGWA-5D	Water	03/04/19 12:03	03/06/19 16:13
2615739004	YGWA-17S	Water	03/05/19 11:38	03/06/19 16:13
2615739005	YGWA-18S	Water	03/05/19 16:53	03/06/19 16:13
2615739006	YGWA-18I	Water	03/06/19 11:25	03/06/19 16:13
2615739007	YGWA-20S	Water	03/05/19 13:40	03/06/19 16:13
2615739008	YGWA-21I	Water	03/05/19 12:05	03/06/19 16:13
2615739009	YGWC-23S	Water	03/06/19 13:15	03/06/19 16:13
2615739010	YGWC-24S	Water	03/05/19 14:55	03/06/19 16:13
2615739011	YGWC-33S	Water	03/06/19 13:00	03/06/19 16:13
2615739012	YGWC-36	Water	03/06/19 11:30	03/06/19 16:13
2615739013	EB-3-3-5-19	Water	03/05/19 11:00	03/06/19 16:13
2615739014	EB-4-3-6-19	Water	03/06/19 10:45	03/06/19 16:13
2615739015	DUP-3	Water	03/06/19 00:00	03/06/19 16:13
2615739016	DUP-4	Water	03/06/19 00:00	03/06/19 16:13
2615739017	FB-3-3-5-19	Water	03/05/19 13:30	03/06/19 16:13
2615739018	FB-4-3-6-19	Water	03/06/19 13:45	03/06/19 16:13

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SAMPLE ANALYTE COUNT

Project: Plant Yates - Ash Pond 3
Pace Project No.: 2615739

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2615739001	YGWA-4I	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
2615739002	YGWA-5I	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
2615739003	YGWA-5D	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
2615739004	YGWA-17S	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
2615739005	YGWA-18S	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
2615739006	YGWA-18I	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
2615739007	YGWA-20S	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
2615739008	YGWA-21I	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
2615739009	YGWC-23S	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
2615739010	YGWC-24S	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
2615739011	YGWC-33S	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
2615739012	YGWC-36	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
2615739013	EB-3-3-5-19	EPA 9315	LAL	1	PASI-PA

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SAMPLE ANALYTE COUNT

Project: Plant Yates - Ash Pond 3
Pace Project No.: 2615739

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2615739014	EB-4-3-6-19	EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
2615739015	DUP-3	Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
2615739016	DUP-4	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	LAL	1	PASI-PA
2615739017	FB-3-3-5-19	EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
2615739018	FB-4-3-6-19	Total Radium Calculation	JAL	1	PASI-PA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates - Ash Pond 3

Pace Project No.: 2615739

Sample: YGWA-4I **Lab ID: 2615739001** Collected: 03/04/19 14:35 Received: 03/06/19 16:13 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.593 ± 0.324 (0.460) C:88% T:NA	pCi/L	03/20/19 08:33	13982-63-3	
Radium-228	EPA 9320	0.620 ± 0.507 (1.03) C:77% T:87%	pCi/L	03/27/19 16:12	15262-20-1	
Total Radium	Total Radium Calculation	1.21 ± 0.831 (1.49)	pCi/L	03/28/19 15:33	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates - Ash Pond 3

Pace Project No.: 2615739

Sample: YGWA-5I **Lab ID: 2615739002** Collected: 03/04/19 13:17 Received: 03/06/19 16:13 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.561 ± 0.328 (0.486) C:84% T:NA	pCi/L	03/20/19 08:32	13982-63-3	
Radium-228	EPA 9320	0.442 ± 0.359 (0.715) C:72% T:90%	pCi/L	03/27/19 12:58	15262-20-1	
Total Radium	Total Radium Calculation	1.00 ± 0.687 (1.20)	pCi/L	03/28/19 15:33	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates - Ash Pond 3

Pace Project No.: 2615739

Sample: YGWA-5D **Lab ID: 2615739003** Collected: 03/04/19 12:03 Received: 03/06/19 16:13 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	3.08 ± 0.790 (0.590) C:87% T:NA	pCi/L	03/20/19 08:32	13982-63-3	
Radium-228	EPA 9320	1.35 ± 0.489 (0.716) C:72% T:91%	pCi/L	03/27/19 12:58	15262-20-1	
Total Radium	Total Radium Calculation	4.43 ± 1.28 (1.31)	pCi/L	03/28/19 15:33	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates - Ash Pond 3

Pace Project No.: 2615739

Sample: YGWA-17S **Lab ID: 2615739004** Collected: 03/05/19 11:38 Received: 03/06/19 16:13 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.223 ± 0.235 (0.464) C:95% T:NA	pCi/L	03/20/19 08:33	13982-63-3	
Radium-228	EPA 9320	0.0490 ± 0.394 (0.897) C:76% T:91%	pCi/L	03/27/19 16:12	15262-20-1	
Total Radium	Total Radium Calculation	0.272 ± 0.629 (1.36)	pCi/L	03/28/19 15:33	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates - Ash Pond 3

Pace Project No.: 2615739

Sample: YGWA-18S **Lab ID: 2615739005** Collected: 03/05/19 16:53 Received: 03/06/19 16:13 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.264 ± 0.250 (0.483) C:97% T:NA	pCi/L	03/20/19 08:33	13982-63-3	
Radium-228	EPA 9320	0.210 ± 0.458 (1.01) C:75% T:82%	pCi/L	03/27/19 16:12	15262-20-1	
Total Radium	Total Radium Calculation	0.474 ± 0.708 (1.49)	pCi/L	03/28/19 15:33	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates - Ash Pond 3

Pace Project No.: 2615739

Sample: YGWA-181 **Lab ID: 2615739006** Collected: 03/06/19 11:25 Received: 03/06/19 16:13 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.502 ± 0.292 (0.403) C:90% T:NA	pCi/L	03/20/19 08:33	13982-63-3	
Radium-228	EPA 9320	0.212 ± 0.352 (0.767) C:74% T:91%	pCi/L	03/27/19 16:12	15262-20-1	
Total Radium	Total Radium Calculation	0.714 ± 0.644 (1.17)	pCi/L	03/28/19 15:33	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates - Ash Pond 3

Pace Project No.: 2615739

Sample: YGWA-20S		Lab ID: 2615739007	Collected: 03/05/19 13:40	Received: 03/06/19 16:13	Matrix: Water		
PWS:		Site ID:	Sample Type:				
Parameters	Method	Act ± Unc (MDC) Carr Trac		Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.424 ± 0.295 (0.489)		pCi/L	03/20/19 08:33	13982-63-3	
		C:88% T:NA					
Radium-228	EPA 9320	0.416 ± 0.501 (1.06)		pCi/L	03/27/19 16:12	15262-20-1	
		C:73% T:82%					
Total Radium	Total Radium Calculation	0.840 ± 0.796 (1.55)		pCi/L	03/28/19 15:33	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates - Ash Pond 3

Pace Project No.: 2615739

Sample: YGWA-211 **Lab ID: 2615739008** Collected: 03/05/19 12:05 Received: 03/06/19 16:13 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.985 ± 0.404 (0.437) C:89% T:NA	pCi/L	03/20/19 08:33	13982-63-3	
Radium-228	EPA 9320	-0.181 ± 0.459 (1.08) C:76% T:89%	pCi/L	03/27/19 16:12	15262-20-1	
Total Radium	Total Radium Calculation	0.985 ± 0.863 (1.52)	pCi/L	03/28/19 15:33	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates - Ash Pond 3

Pace Project No.: 2615739

Sample: YGWC-23S **Lab ID: 2615739009** Collected: 03/06/19 13:15 Received: 03/06/19 16:13 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.278 ± 0.229 (0.374) C:88% T:NA	pCi/L	03/20/19 08:34	13982-63-3	
Radium-228	EPA 9320	0.458 ± 0.403 (0.814) C:77% T:80%	pCi/L	03/27/19 16:13	15262-20-1	
Total Radium	Total Radium Calculation	0.736 ± 0.632 (1.19)	pCi/L	03/28/19 15:38	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates - Ash Pond 3

Pace Project No.: 2615739

Sample: YGWC-24S **Lab ID: 2615739010** Collected: 03/05/19 14:55 Received: 03/06/19 16:13 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.229 ± 0.223 (0.406) C:89% T:NA	pCi/L	03/20/19 08:31	13982-63-3	
Radium-228	EPA 9320	0.608 ± 0.429 (0.838) C:76% T:87%	pCi/L	03/27/19 16:12	15262-20-1	
Total Radium	Total Radium Calculation	0.837 ± 0.652 (1.24)	pCi/L	03/28/19 15:38	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates - Ash Pond 3

Pace Project No.: 2615739

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Sample: YGWC-33S Lab ID: 2615739011 Collected: 03/06/19 13:00 Received: 03/06/19 16:13 Matrix: Water PWS: Site ID: Sample Type:						
Radium-226	EPA 9315	0.939 ± 0.385 (0.403) C:94% T:NA	pCi/L	03/20/19 08:32	13982-63-3	
Radium-228	EPA 9320	0.0313 ± 0.370 (0.851) C:75% T:83%	pCi/L	03/27/19 16:13	15262-20-1	
Total Radium	Total Radium Calculation	0.970 ± 0.755 (1.25)	pCi/L	03/28/19 15:38	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates - Ash Pond 3

Pace Project No.: 2615739

Sample: YGWC-36 **Lab ID: 2615739012** Collected: 03/06/19 11:30 Received: 03/06/19 16:13 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.919 ± 0.425 (0.593) C:87% T:NA	pCi/L	03/20/19 08:31	13982-63-3	
Radium-228	EPA 9320	-0.178 ± 0.339 (0.830) C:75% T:83%	pCi/L	03/27/19 16:13	15262-20-1	
Total Radium	Total Radium Calculation	0.919 ± 0.764 (1.42)	pCi/L	03/28/19 15:38	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates - Ash Pond 3

Pace Project No.: 2615739

Sample: EB-3-3-5-19 **Lab ID: 2615739013** Collected: 03/05/19 11:00 Received: 03/06/19 16:13 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.0654 ± 0.159 (0.383) C:91% T:NA	pCi/L	03/20/19 08:31	13982-63-3	
Radium-228	EPA 9320	0.181 ± 0.337 (0.739) C:76% T:89%	pCi/L	03/27/19 16:12	15262-20-1	
Total Radium	Total Radium Calculation	0.246 ± 0.496 (1.12)	pCi/L	03/28/19 15:33	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates - Ash Pond 3

Pace Project No.: 2615739

Sample: EB-4-3-6-19 **Lab ID: 2615739014** Collected: 03/06/19 10:45 Received: 03/06/19 16:13 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.471 ± 0.291 (0.425) C:91% T:NA	pCi/L	03/20/19 08:32	13982-63-3	
Radium-228	EPA 9320	0.157 ± 0.367 (0.815) C:76% T:89%	pCi/L	03/27/19 16:13	15262-20-1	
Total Radium	Total Radium Calculation	0.628 ± 0.658 (1.24)	pCi/L	03/28/19 15:38	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates - Ash Pond 3

Pace Project No.: 2615739

Sample: DUP-3 **Lab ID: 2615739015** Collected: 03/06/19 00:00 Received: 03/06/19 16:13 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.154 ± 0.238 (0.524) C:89% T:NA	pCi/L	03/20/19 08:31	13982-63-3	
Radium-228	EPA 9320	0.0842 ± 0.386 (0.876) C:73% T:85%	pCi/L	03/27/19 16:12	15262-20-1	
Total Radium	Total Radium Calculation	0.238 ± 0.624 (1.40)	pCi/L	03/28/19 15:38	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates - Ash Pond 3

Pace Project No.: 2615739

Sample: DUP-4 **Lab ID: 2615739016** Collected: 03/06/19 00:00 Received: 03/06/19 16:13 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.936 ± 0.397 (0.479) C:95% T:NA	pCi/L	03/20/19 08:31	13982-63-3	
Radium-228	EPA 9320	0.718 ± 0.431 (0.804) C:73% T:86%	pCi/L	03/27/19 16:13	15262-20-1	
Total Radium	Total Radium Calculation	1.65 ± 0.828 (1.28)	pCi/L	03/28/19 15:38	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates - Ash Pond 3

Pace Project No.: 2615739

Sample: FB-3-3-5-19 **Lab ID: 2615739017** Collected: 03/05/19 13:30 Received: 03/06/19 16:13 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	-0.0550 ± 0.211 (0.598) C:92% T:NA	pCi/L	03/20/19 08:31	13982-63-3	
Radium-228	EPA 9320	0.510 ± 0.379 (0.740) C:76% T:87%	pCi/L	03/27/19 16:12	15262-20-1	
Total Radium	Total Radium Calculation	0.510 ± 0.590 (1.34)	pCi/L	03/28/19 15:33	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates - Ash Pond 3

Pace Project No.: 2615739

Sample: FB-4-3-6-19 **Lab ID: 2615739018** Collected: 03/06/19 13:45 Received: 03/06/19 16:13 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 ± 0.264 (0.478) C:93% T:NA	pCi/L	03/20/19 08:34	13982-63-3	
Radium-228	EPA 9320	-0.0367 ± 0.356 (0.835) C:73% T:85%	pCi/L	03/27/19 16:13	15262-20-1	
Total Radium	Total Radium Calculation	0.322 ± 0.620 (1.31)	pCi/L	03/28/19 15:38	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Yates - Ash Pond 3

Pace Project No.: 2615739

QC Batch: 333842 Analysis Method: EPA 9315

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

Associated Lab Samples: 2615739001, 2615739002, 2615739003, 2615739004, 2615739005, 2615739006, 2615739007, 2615739008, 2615739009, 2615739010, 2615739011, 2615739012, 2615739013, 2615739014, 2615739015, 2615739016, 2615739017, 2615739018

METHOD BLANK: 1624774 Matrix: Water

Associated Lab Samples: 2615739001, 2615739002, 2615739003, 2615739004, 2615739005, 2615739006, 2615739007, 2615739008, 2615739009, 2615739010, 2615739011, 2615739012, 2615739013, 2615739014, 2615739015, 2615739016, 2615739017, 2615739018

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0453 ± 0.182 (0.464) C:88% T:NA	pCi/L	03/20/19 08:32	

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 - Ash Pond 3

Pace Project No.: 2615739

QC Batch: 334689

Analysis Method: EPA 9320

QC Batch Method: EPA 9320

Analysis Description: 9320 Radium 228

Associated Lab Samples: 2615739001, 2615739002, 2615739003, 2615739004, 2615739005, 2615739006, 2615739007, 2615739008, 2615739009, 2615739010, 2615739011, 2615739012, 2615739013, 2615739014, 2615739015, 2615739016, 2615739017, 2615739018

METHOD BLANK: 1628695

Matrix: Water

Associated Lab Samples: 2615739001, 2615739002, 2615739003, 2615739004, 2615739005, 2615739006, 2615739007, 2615739008, 2615739009, 2615739010, 2615739011, 2615739012, 2615739013, 2615739014, 2615739015, 2615739016, 2615739017, 2615739018

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.0633 ± 0.285 (0.651) C:77% T:86%	pCi/L	03/27/19 12:58	

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 Pond 3

Pace Project No.: 2615739

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 - Ash Pond 3
Pace Project No.: 2615739

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2615739001	YGWA-4I	EPA 9315	333842		
2615739002	YGWA-5I	EPA 9315	333842		
2615739003	YGWA-5D	EPA 9315	333842		
2615739004	YGWA-17S	EPA 9315	333842		
2615739005	YGWA-18S	EPA 9315	333842		
2615739006	YGWA-18I	EPA 9315	333842		
2615739007	YGWA-20S	EPA 9315	333842		
2615739008	YGWA-21I	EPA 9315	333842		
2615739009	YGWC-23S	EPA 9315	333842		
2615739010	YGWC-24S	EPA 9315	333842		
2615739011	YGWC-33S	EPA 9315	333842		
2615739012	YGWC-36	EPA 9315	333842		
2615739013	EB-3-3-5-19	EPA 9315	333842		
2615739014	EB-4-3-6-19	EPA 9315	333842		
2615739015	DUP-3	EPA 9315	333842		
2615739016	DUP-4	EPA 9315	333842		
2615739017	FB-3-3-5-19	EPA 9315	333842		
2615739018	FB-4-3-6-19	EPA 9315	333842		
2615739001	YGWA-4I	EPA 9320	334689		
2615739002	YGWA-5I	EPA 9320	334689		
2615739003	YGWA-5D	EPA 9320	334689		
2615739004	YGWA-17S	EPA 9320	334689		
2615739005	YGWA-18S	EPA 9320	334689		
2615739006	YGWA-18I	EPA 9320	334689		
2615739007	YGWA-20S	EPA 9320	334689		
2615739008	YGWA-21I	EPA 9320	334689		
2615739009	YGWC-23S	EPA 9320	334689		
2615739010	YGWC-24S	EPA 9320	334689		
2615739011	YGWC-33S	EPA 9320	334689		
2615739012	YGWC-36	EPA 9320	334689		
2615739013	EB-3-3-5-19	EPA 9320	334689		
2615739014	EB-4-3-6-19	EPA 9320	334689		
2615739015	DUP-3	EPA 9320	334689		
2615739016	DUP-4	EPA 9320	334689		
2615739017	FB-3-3-5-19	EPA 9320	334689		
2615739018	FB-4-3-6-19	EPA 9320	334689		
2615739001	YGWA-4I	Total Radium Calculation	335990		
2615739002	YGWA-5I	Total Radium Calculation	335990		
2615739003	YGWA-5D	Total Radium Calculation	335990		
2615739004	YGWA-17S	Total Radium Calculation	335990		
2615739005	YGWA-18S	Total Radium Calculation	335990		
2615739006	YGWA-18I	Total Radium Calculation	335990		
2615739007	YGWA-20S	Total Radium Calculation	335990		
2615739008	YGWA-21I	Total Radium Calculation	335990		
2615739009	YGWC-23S	Total Radium Calculation	335992		
2615739010	YGWC-24S	Total Radium Calculation	335992		
2615739011	YGWC-33S	Total Radium Calculation	335992		

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Yates - Ash Pond 3

Pace Project No.: 2615739

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2615739012	YGWC-36	Total Radium Calculation	335992		
2615739013	EB-3-3-5-19	Total Radium Calculation	335990		
2615739014	EB-4-3-6-19	Total Radium Calculation	335992		
2615739015	DUP-3	Total Radium Calculation	335992		
2615739016	DUP-4	Total Radium Calculation	335992		
2615739017	FB-3-3-5-19	Total Radium Calculation	335990		
2615739018	FB-4-3-6-19	Total Radium Calculation	335992		

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

CHAIN OF CUSTODY RECORD

PAGE: / OF Z

CLIENT NAME: Georgia Power
 CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER: 241 Ralphi McGill Blvd SE B10185 Atlanta, GA 30308 404-506-7239
 REPORT TO: Jolu Abraham
 REQUESTED COMPLETION DATE: PO #:
 PROJECT NAME/STATE: Plant Yates - Ash Pond 3
 PROJECT #:

Collection DATE	Collection TIME	MATRIX CODE	C O R M P	SAMPLE IDENTIFICATION	ANALYSIS REQUESTED	CONTAINER TYPE	CONTAINER TYPE	PRESERVATION	REMARKS/ADDITIONAL INFORMATION
3-4-19	1435	GW	✓	YGWA-41	Fluoride (SW: 846 9315/9320) Radium 226 & 228	3	P-PLASTIC	1 - HCl, ≤6°C	
3-4-19	1317	GW	✓	YGWA-5T		7	A-AMBER GLASS	2 - H ₂ SO ₄ , ≤6°C	
3-4-19	1203	GW	✓	YGWA-5D		3	G-CLEAR GLASS	3 - HNO ₃	
3-5-19	1138	GW	✓	YGWA-17S		1	V-VOA VIAL	4 - NaOH, ≤6°C	
3-5-19	1653	GW	✓	YGWA-18S		1	S-STERILE	5 - NaOH/ZnAc, ≤6°C	
3-6-19	1125	GW	✓	YGWA-18T		1	O-OTHER	6 - Na ₂ S ₂ O ₃ , ≤6°C	
3-5-19	1340	GW	✓	YGWA-20S		1		7 - ≤6°C not frozen	
3-5-19	1205	GW	✓	YGWA-21T		1			
3-6-19	1315	GW	✓	YGWC-23S		4			
3-5-19	1455	GW	✓	YGWC-24S		1			
3-6-19	1300	GW	✓	YGWC-33S		1			
3-6-19	1130	GW	✓	YGWC-36		1			

RELINQUISHED BY: [Signature] DATE/TIME: 3-6-19 / 1613
 RELINQUISHED BY: [Signature] DATE/TIME: [Blank] / [Blank]

LAB #: 2615739

W0#: 2615739

2615739

RECEIVED BY LAB: [Signature] DATE/TIME: 3/6/19 1613
 RECEIVED BY: [Signature] DATE/TIME: 3/6/19 1613

TEMPERATURE: [Blank] MIN: [Blank] MAX: [Blank]

PH: [Blank]

NO. [Blank] NA [Blank] NB [Blank] NC [Blank] ND [Blank] NE [Blank] NF [Blank] NG [Blank] NH [Blank] NI [Blank] NJ [Blank] NK [Blank] NL [Blank] NM [Blank] NN [Blank] NO [Blank] NP [Blank] NQ [Blank] NR [Blank] NS [Blank] NT [Blank] NU [Blank] NV [Blank] NW [Blank] NX [Blank] NY [Blank] NZ [Blank]

APR IV 29 of 31

Yates Ash Pond 3 - Blank COCs.xlsx



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

PAGE: 2 OF 2

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: Joju Abraham
 REQUESTED COMPLETION DATE:
 PROJECT NAME/STATE: Plant Yates - Ash Pond 3
 PROJECT #:

CONTAINER TYPE		ANALYSIS REQUESTED			PRESERVATION	
CONTAINER TYPE	P	P	P	P	CONTAINER TYPE	PRESERVATION
# of	3	7	3		P - PLASTIC	1 - HCl, ≤6°C
C O N T A I N E R S					A - AMBER GLASS	2 - H ₂ SO ₄ , ≤6°C
	Meis App. IV (FPA 6020/7470)	Flouride	Radium 226 & 228 (SM 846 9315/9320)		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

L A B I D N U M B E R

13 14 15 16 17 18

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

RELINQUISHED BY: *[Signature]*
 DATE/TIME: 3-6-19 1613
 RELINQUISHED BY: *[Signature]*
 DATE/TIME: *[Blank]*

LAB #:
 NO#: 2615739
 PM: BM Due Date: 04/03/19
 CLIENT: GAPower-CCR

SAMPLED BY AND TITLE		DATE/TIME		RELINQUISHED BY		DATE/TIME	
<i>[Signature]</i>	H. Auld / ACC	see above		<i>[Signature]</i>			
<i>[Signature]</i>	J. Auld / ACC	3/6/19 1613		<i>[Signature]</i>			

Yates Ash Pond 3 - Blank COCs.xlsx



Sample Condition Upon Receipt

WO#: 2615739

Client Name: Georgia Power - CCR

PM: BM Due Date: 04/03/19
CLIENT: GAPower-CCR

Courier: [] Fed Ex [] UPS [] USPS [x] Client [] Commercial [] Pace Other
Tracking #: _____

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

Packing Material: [] Bubble Wrap [] Bubble Bags [x] None [] Other

Thermometer Used 082 Type of Ice: [x] Wet Blue None [] Samples on ice, cooling process has begun

Cooler Temperature 2.4°C Biological Tissue is Frozen: Yes No
Temp should be above freezing to 6°C

Project Due Date:
Project Name:

Date and Initials of person examining contents: 3/7/19 JW

Table with 16 rows of checklist items (Chain of Custody Present, Chain of Custody Filled Out, etc.) and checkboxes for Yes, No, N/A.

Client Notification/ Resolution:
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)

April 12, 2019

Joju Abraham
Georgia Power - Coal Combustion Residuals
2480 Maner Road
Atlanta, GA 30339

RE: Project: Plant Yates Ash Pond 3
Pace Project No.: 2617035

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on April 04, 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,



Eben Buchanan for
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 Ash Pond 3

Pace Project No.: 2617035

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 Ash Pond 3
Pace Project No.: 2617035

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2617035001	YGWA-4I	Water	04/03/19 13:50	04/04/19 17:22
2617035002	YGWA-5I	Water	04/03/19 15:40	04/04/19 17:22
2617035003	YGWA-5D	Water	04/03/19 13:55	04/04/19 17:22
2617035004	YGWA-17S	Water	04/02/19 15:10	04/04/19 17:22
2617035005	YGWA-18S	Water	04/03/19 10:15	04/04/19 17:22
2617035006	YGWA-18I	Water	04/03/19 11:35	04/04/19 17:22
2617035007	YGWA-20S	Water	04/03/19 12:30	04/04/19 17:22
2617035008	YGWA-21I	Water	04/02/19 15:56	04/04/19 17:22
2617035009	YGWC-23S	Water	04/04/19 13:05	04/04/19 17:22
2617035010	YGWC-24S	Water	04/04/19 12:20	04/04/19 17:22
2617035011	YGWC-33S	Water	04/04/19 11:35	04/04/19 17:22
2617035012	YGWC-36	Water	04/04/19 14:35	04/04/19 17:22
2617035013	EB-1-4-3-19	Water	04/03/19 11:00	04/04/19 17:22
2617035014	EB-2-4-4-19	Water	04/04/19 11:25	04/04/19 17:22
2617035015	Dup-1	Water	04/03/19 00:00	04/04/19 17:22
2617035016	Dup-2	Water	04/04/19 00:00	04/04/19 17:22
2617035017	FB-1-4-3-19	Water	04/03/19 13:20	04/04/19 17:22
2617035018	FB-2-4-4-19	Water	04/04/19 13:25	04/04/19 17:22

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: Plant Yates Ash Pond 3

Pace Project No.: 2617035

Lab ID	Sample ID	Method	Analysts	Analytes Reported
2617035001	YGWA-4I	EPA 6020B	CSW	12
		SM 2540C	RLC	1
		EPA 300.0	RLC	3
2617035002	YGWA-5I	EPA 6020B	CSW	12
		SM 2540C	RLC	1
		EPA 300.0	RLC	3
2617035003	YGWA-5D	EPA 6020B	CSW	12
		SM 2540C	RLC	1
		EPA 300.0	RLC	3
2617035004	YGWA-17S	EPA 6020B	CSW	12
		SM 2540C	RLC	1
		EPA 300.0	RLC	3
2617035005	YGWA-18S	EPA 6020B	CSW	12
		SM 2540C	RLC	1
		EPA 300.0	RLC	3
2617035006	YGWA-18I	EPA 6020B	CSW	12
		SM 2540C	RLC	1
		EPA 300.0	RLC	3
2617035007	YGWA-20S	EPA 6020B	CSW	12
		SM 2540C	RLC	1
		EPA 300.0	RLC	3
2617035008	YGWA-21I	EPA 6020B	CSW	12
		SM 2540C	RLC	1
		EPA 300.0	RLC	3
2617035009	YGWC-23S	EPA 6020B	CSW	12
		SM 2540C	RLC	1
		EPA 300.0	RLC	3
2617035010	YGWC-24S	EPA 6020B	CSW	12
		SM 2540C	RLC	1
		EPA 300.0	RLC	3
2617035011	YGWC-33S	EPA 6020B	CSW	12
		SM 2540C	RLC	1
		EPA 300.0	RLC	3
2617035012	YGWC-36	EPA 6020B	CSW	12
		SM 2540C	RLC	1
		EPA 300.0	RLC	3
2617035013	EB-1-4-3-19	EPA 6020B	CSW	12

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SAMPLE ANALYTE COUNT

Project: Plant Yates Ash Pond 3

Pace Project No.: 2617035

Lab ID	Sample ID	Method	Analysts	Analytes Reported
2617035014	EB-2-4-4-19	SM 2540C	RLC	1
		EPA 300.0	RLC	3
		EPA 6020B	CSW	12
2617035015	Dup-1	SM 2540C	RLC	1
		EPA 300.0	RLC	3
		EPA 6020B	CSW	12
2617035016	Dup-2	SM 2540C	RLC	1
		EPA 300.0	RLC	3
		EPA 6020B	CSW	12
2617035017	FB-1-4-3-19	SM 2540C	RLC	1
		EPA 300.0	RLC	3
		EPA 6020B	CSW	12
2617035018	FB-2-4-4-19	SM 2540C	RLC	1
		EPA 300.0	RLC	3
		EPA 6020B	CSW	12

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ANALYTICAL RESULTS

Project: Plant Yates Ash Pond 3
Pace Project No.: 2617035

Sample: YGWA-4I		Lab ID: 2617035001		Collected: 04/03/19 13:50		Received: 04/04/19 17:22		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	04/08/19 11:40	04/10/19 21:44	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	04/08/19 11:40	04/10/19 21:44	7440-38-2	
Barium	0.017	mg/L	0.010	0.00078	1	04/08/19 11:40	04/10/19 21:44	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	04/08/19 11:40	04/10/19 21:44	7440-41-7	
Boron	0.0055J	mg/L	0.040	0.0039	1	04/08/19 11:40	04/10/19 21:44	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000093	1	04/08/19 11:40	04/10/19 21:44	7440-43-9	
Calcium	8.4	mg/L	0.50	0.014	1	04/08/19 11:40	04/10/19 21:44	7440-70-2	M1
Cobalt	0.00083J	mg/L	0.010	0.00052	1	04/08/19 11:40	04/10/19 21:44	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	04/08/19 11:40	04/10/19 21:44	7439-92-1	
Lithium	0.014J	mg/L	0.050	0.00097	1	04/08/19 11:40	04/10/19 21:44	7439-93-2	
Selenium	ND	mg/L	0.010	0.0014	1	04/08/19 11:40	04/10/19 21:44	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	04/08/19 11:40	04/10/19 21:44	7440-28-0	
2540C Total Dissolved Solids		Analytical Method: SM 2540C							
Total Dissolved Solids	111	mg/L	25.0	10.0	1		04/10/19 16:33		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Chloride	4.3	mg/L	0.25	0.024	1		04/08/19 23:25	16887-00-6	
Fluoride	ND	mg/L	0.30	0.029	1		04/08/19 23:25	16984-48-8	
Sulfate	8.5	mg/L	1.0	0.017	1		04/08/19 23:25	14808-79-8	

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ANALYTICAL RESULTS

Project: Plant Yates Ash Pond 3
Pace Project No.: 2617035

Sample: YGWA-5I		Lab ID: 2617035002		Collected: 04/03/19 15:40		Received: 04/04/19 17:22		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	04/08/19 11:40	04/10/19 22:35	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	04/08/19 11:40	04/10/19 22:35	7440-38-2	
Barium	0.023	mg/L	0.010	0.00078	1	04/08/19 11:40	04/10/19 22:35	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	04/08/19 11:40	04/10/19 22:35	7440-41-7	
Boron	0.0044J	mg/L	0.040	0.0039	1	04/08/19 11:40	04/10/19 22:35	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000093	1	04/08/19 11:40	04/10/19 22:35	7440-43-9	
Calcium	2.8	mg/L	0.50	0.014	1	04/08/19 11:40	04/10/19 22:35	7440-70-2	
Cobalt	ND	mg/L	0.010	0.00052	1	04/08/19 11:40	04/10/19 22:35	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	04/08/19 11:40	04/10/19 22:35	7439-92-1	
Lithium	0.0035J	mg/L	0.050	0.00097	1	04/08/19 11:40	04/10/19 22:35	7439-93-2	
Selenium	ND	mg/L	0.010	0.0014	1	04/08/19 11:40	04/10/19 22:35	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	04/08/19 11:40	04/10/19 22:35	7440-28-0	
2540C Total Dissolved Solids		Analytical Method: SM 2540C							
Total Dissolved Solids	83.0	mg/L	25.0	10.0	1		04/10/19 16:33		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Chloride	4.2	mg/L	0.25	0.024	1		04/09/19 00:27	16887-00-6	
Fluoride	ND	mg/L	0.30	0.029	1		04/09/19 00:27	16984-48-8	
Sulfate	2.1	mg/L	1.0	0.017	1		04/09/19 00:27	14808-79-8	

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ANALYTICAL RESULTS

Project: Plant Yates Ash Pond 3

Pace Project No.: 2617035

Sample: YGWA-5D		Lab ID: 2617035003		Collected: 04/03/19 13:55		Received: 04/04/19 17:22		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	04/08/19 11:40	04/10/19 22:47	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	04/08/19 11:40	04/10/19 22:47	7440-38-2	
Barium	0.0087J	mg/L	0.010	0.00078	1	04/08/19 11:40	04/10/19 22:47	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	04/08/19 11:40	04/10/19 22:47	7440-41-7	
Boron	0.0076J	mg/L	0.040	0.0039	1	04/08/19 11:40	04/10/19 22:47	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000093	1	04/08/19 11:40	04/10/19 22:47	7440-43-9	
Calcium	24.7J	mg/L	25.0	0.69	50	04/08/19 11:40	04/10/19 22:52	7440-70-2	D3
Cobalt	ND	mg/L	0.010	0.00052	1	04/08/19 11:40	04/10/19 22:47	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	04/08/19 11:40	04/10/19 22:47	7439-92-1	
Lithium	0.0070J	mg/L	0.050	0.00097	1	04/08/19 11:40	04/10/19 22:47	7439-93-2	
Selenium	ND	mg/L	0.010	0.0014	1	04/08/19 11:40	04/10/19 22:47	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	04/08/19 11:40	04/10/19 22:47	7440-28-0	
2540C Total Dissolved Solids		Analytical Method: SM 2540C							
Total Dissolved Solids	142	mg/L	25.0	10.0	1		04/10/19 16:33		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Chloride	4.0	mg/L	0.25	0.024	1		04/09/19 00:48	16887-00-6	
Fluoride	0.047J	mg/L	0.30	0.029	1		04/09/19 00:48	16984-48-8	
Sulfate	7.0	mg/L	1.0	0.017	1		04/09/19 00:48	14808-79-8	

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ANALYTICAL RESULTS

Project: Plant Yates Ash Pond 3

Pace Project No.: 2617035

Sample: YGWA-17S		Lab ID: 2617035004		Collected: 04/02/19 15:10		Received: 04/04/19 17:22		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	04/08/19 11:40	04/10/19 22:58	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	04/08/19 11:40	04/10/19 22:58	7440-38-2	
Barium	0.016	mg/L	0.010	0.00078	1	04/08/19 11:40	04/10/19 22:58	7440-39-3	
Beryllium	0.000090J	mg/L	0.0030	0.000050	1	04/08/19 11:40	04/10/19 22:58	7440-41-7	
Boron	0.0066J	mg/L	0.040	0.0039	1	04/08/19 11:40	04/10/19 22:58	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000093	1	04/08/19 11:40	04/10/19 22:58	7440-43-9	
Calcium	2.5	mg/L	0.50	0.014	1	04/08/19 11:40	04/10/19 22:58	7440-70-2	
Cobalt	ND	mg/L	0.010	0.00052	1	04/08/19 11:40	04/10/19 22:58	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	04/08/19 11:40	04/10/19 22:58	7439-92-1	
Lithium	ND	mg/L	0.050	0.00097	1	04/08/19 11:40	04/10/19 22:58	7439-93-2	
Selenium	ND	mg/L	0.010	0.0014	1	04/08/19 11:40	04/10/19 22:58	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	04/08/19 11:40	04/10/19 22:58	7440-28-0	
2540C Total Dissolved Solids		Analytical Method: SM 2540C							
Total Dissolved Solids	72.0	mg/L	25.0	10.0	1		04/09/19 18:50		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Chloride	4.8	mg/L	0.25	0.024	1		04/09/19 01:09	16887-00-6	
Fluoride	ND	mg/L	0.30	0.029	1		04/09/19 01:09	16984-48-8	
Sulfate	5.1	mg/L	1.0	0.017	1		04/09/19 01:09	14808-79-8	

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ANALYTICAL RESULTS

Project: Plant Yates Ash Pond 3

Pace Project No.: 2617035

Sample: YGWA-18S		Lab ID: 2617035005		Collected: 04/03/19 10:15		Received: 04/04/19 17:22		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	04/08/19 11:40	04/10/19 23:10	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	04/08/19 11:40	04/10/19 23:10	7440-38-2	
Barium	0.017	mg/L	0.010	0.00078	1	04/08/19 11:40	04/10/19 23:10	7440-39-3	
Beryllium	0.000075J	mg/L	0.0030	0.000050	1	04/08/19 11:40	04/10/19 23:10	7440-41-7	
Boron	0.0053J	mg/L	0.040	0.0039	1	04/08/19 11:40	04/10/19 23:10	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000093	1	04/08/19 11:40	04/10/19 23:10	7440-43-9	
Calcium	1.2	mg/L	0.50	0.014	1	04/08/19 11:40	04/10/19 23:10	7440-70-2	
Cobalt	ND	mg/L	0.010	0.00052	1	04/08/19 11:40	04/10/19 23:10	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	04/08/19 11:40	04/10/19 23:10	7439-92-1	
Lithium	0.0028J	mg/L	0.050	0.00097	1	04/08/19 11:40	04/10/19 23:10	7439-93-2	
Selenium	ND	mg/L	0.010	0.0014	1	04/08/19 11:40	04/10/19 23:10	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	04/08/19 11:40	04/10/19 23:10	7440-28-0	
2540C Total Dissolved Solids		Analytical Method: SM 2540C							
Total Dissolved Solids	63.0	mg/L	25.0	10.0	1		04/10/19 16:33		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Chloride	6.3	mg/L	0.25	0.024	1		04/09/19 01:29	16887-00-6	
Fluoride	ND	mg/L	0.30	0.029	1		04/09/19 01:29	16984-48-8	
Sulfate	1.3	mg/L	1.0	0.017	1		04/09/19 01:29	14808-79-8	

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ANALYTICAL RESULTS

Project: Plant Yates Ash Pond 3

Pace Project No.: 2617035

Sample: YGWA-181		Lab ID: 2617035006		Collected: 04/03/19 11:35		Received: 04/04/19 17:22		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	04/08/19 11:40	04/10/19 23:21	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	04/08/19 11:40	04/10/19 23:21	7440-38-2	
Barium	0.025	mg/L	0.010	0.00078	1	04/08/19 11:40	04/10/19 23:21	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	04/08/19 11:40	04/10/19 23:21	7440-41-7	
Boron	ND	mg/L	0.040	0.0039	1	04/08/19 11:40	04/10/19 23:21	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000093	1	04/08/19 11:40	04/10/19 23:21	7440-43-9	
Calcium	5.3	mg/L	0.50	0.014	1	04/08/19 11:40	04/10/19 23:21	7440-70-2	
Cobalt	ND	mg/L	0.010	0.00052	1	04/08/19 11:40	04/10/19 23:21	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	04/08/19 11:40	04/10/19 23:21	7439-92-1	
Lithium	0.0035J	mg/L	0.050	0.00097	1	04/08/19 11:40	04/10/19 23:21	7439-93-2	
Selenium	ND	mg/L	0.010	0.0014	1	04/08/19 11:40	04/10/19 23:21	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	04/08/19 11:40	04/10/19 23:21	7440-28-0	
2540C Total Dissolved Solids		Analytical Method: SM 2540C							
Total Dissolved Solids	89.0	mg/L	25.0	10.0	1		04/10/19 16:34		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Chloride	6.9	mg/L	0.25	0.024	1		04/09/19 01:50	16887-00-6	
Fluoride	ND	mg/L	0.30	0.029	1		04/09/19 01:50	16984-48-8	
Sulfate	0.82J	mg/L	1.0	0.017	1		04/09/19 01:50	14808-79-8	

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ANALYTICAL RESULTS

Project: Plant Yates Ash Pond 3

Pace Project No.: 2617035

Sample: YGWA-20S		Lab ID: 2617035007		Collected: 04/03/19 12:30		Received: 04/04/19 17:22		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	04/08/19 11:40	04/10/19 23:44	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	04/08/19 11:40	04/10/19 23:44	7440-38-2	
Barium	0.018	mg/L	0.010	0.00078	1	04/08/19 11:40	04/10/19 23:44	7440-39-3	
Beryllium	0.000064J	mg/L	0.0030	0.000050	1	04/08/19 11:40	04/10/19 23:44	7440-41-7	
Boron	ND	mg/L	0.040	0.0039	1	04/08/19 11:40	04/10/19 23:44	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000093	1	04/08/19 11:40	04/10/19 23:44	7440-43-9	
Calcium	2.9	mg/L	0.50	0.014	1	04/08/19 11:40	04/10/19 23:44	7440-70-2	
Cobalt	ND	mg/L	0.010	0.00052	1	04/08/19 11:40	04/10/19 23:44	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	04/08/19 11:40	04/10/19 23:44	7439-92-1	
Lithium	ND	mg/L	0.050	0.00097	1	04/08/19 11:40	04/10/19 23:44	7439-93-2	
Selenium	ND	mg/L	0.010	0.0014	1	04/08/19 11:40	04/10/19 23:44	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	04/08/19 11:40	04/10/19 23:44	7440-28-0	
2540C Total Dissolved Solids		Analytical Method: SM 2540C							
Total Dissolved Solids	57.0	mg/L	25.0	10.0	1		04/10/19 16:34		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Chloride	3.1	mg/L	0.25	0.024	1		04/09/19 02:11	16887-00-6	
Fluoride	ND	mg/L	0.30	0.029	1		04/09/19 02:11	16984-48-8	
Sulfate	0.12J	mg/L	1.0	0.017	1		04/09/19 02:11	14808-79-8	B

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ANALYTICAL RESULTS

Project: Plant Yates Ash Pond 3

Pace Project No.: 2617035

Sample: YGWA-211		Lab ID: 2617035008		Collected: 04/02/19 15:56		Received: 04/04/19 17:22		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	0.0011J	mg/L	0.0030	0.00078	1	04/08/19 11:40	04/10/19 23:55	7440-36-0	
Arsenic	0.00096J	mg/L	0.0050	0.00057	1	04/08/19 11:40	04/10/19 23:55	7440-38-2	
Barium	0.011	mg/L	0.010	0.00078	1	04/08/19 11:40	04/10/19 23:55	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	04/08/19 11:40	04/10/19 23:55	7440-41-7	
Boron	0.011J	mg/L	0.040	0.0039	1	04/08/19 11:40	04/10/19 23:55	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000093	1	04/08/19 11:40	04/10/19 23:55	7440-43-9	
Calcium	8.8	mg/L	0.50	0.014	1	04/08/19 11:40	04/10/19 23:55	7440-70-2	
Cobalt	0.0039J	mg/L	0.010	0.00052	1	04/08/19 11:40	04/10/19 23:55	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	04/08/19 11:40	04/10/19 23:55	7439-92-1	
Lithium	0.0051J	mg/L	0.050	0.00097	1	04/08/19 11:40	04/10/19 23:55	7439-93-2	
Selenium	ND	mg/L	0.010	0.0014	1	04/08/19 11:40	04/10/19 23:55	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	04/08/19 11:40	04/10/19 23:55	7440-28-0	
2540C Total Dissolved Solids		Analytical Method: SM 2540C							
Total Dissolved Solids	134	mg/L	25.0	10.0	1		04/09/19 18:50		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Chloride	2.5	mg/L	0.25	0.024	1		04/09/19 02:32	16887-00-6	
Fluoride	0.12J	mg/L	0.30	0.029	1		04/09/19 02:32	16984-48-8	
Sulfate	3.8	mg/L	1.0	0.017	1		04/09/19 02:32	14808-79-8	

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ANALYTICAL RESULTS

Project: Plant Yates Ash Pond 3

Pace Project No.: 2617035

Sample: YGWC-23S		Lab ID: 2617035009		Collected: 04/04/19 13:05		Received: 04/04/19 17:22		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	04/08/19 11:40	04/11/19 00:07	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	04/08/19 11:40	04/11/19 00:07	7440-38-2	
Barium	0.019	mg/L	0.010	0.00078	1	04/08/19 11:40	04/11/19 00:07	7440-39-3	
Beryllium	0.000072J	mg/L	0.0030	0.000050	1	04/08/19 11:40	04/11/19 00:07	7440-41-7	
Boron	0.60	mg/L	0.040	0.0039	1	04/08/19 11:40	04/11/19 00:07	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000093	1	04/08/19 11:40	04/11/19 00:07	7440-43-9	
Calcium	3.7	mg/L	0.50	0.014	1	04/08/19 11:40	04/11/19 00:07	7440-70-2	
Cobalt	ND	mg/L	0.010	0.00052	1	04/08/19 11:40	04/11/19 00:07	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	04/08/19 11:40	04/11/19 00:07	7439-92-1	
Lithium	0.0018J	mg/L	0.050	0.00097	1	04/08/19 11:40	04/11/19 00:07	7439-93-2	
Selenium	0.017	mg/L	0.010	0.0014	1	04/08/19 11:40	04/11/19 00:07	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	04/08/19 11:40	04/11/19 00:07	7440-28-0	
2540C Total Dissolved Solids		Analytical Method: SM 2540C							
Total Dissolved Solids	85.0	mg/L	25.0	10.0	1		04/11/19 19:34		D6
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Chloride	1.7	mg/L	0.25	0.024	1		04/09/19 04:15	16887-00-6	
Fluoride	0.049J	mg/L	0.30	0.029	1		04/09/19 04:15	16984-48-8	
Sulfate	27.9	mg/L	1.0	0.017	1		04/09/19 04:15	14808-79-8	

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ANALYTICAL RESULTS

Project: Plant Yates Ash Pond 3

Pace Project No.: 2617035

Sample: YGWC-24S		Lab ID: 2617035010		Collected: 04/04/19 12:20		Received: 04/04/19 17:22		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	04/08/19 11:40	04/11/19 00:18	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	04/08/19 11:40	04/11/19 00:18	7440-38-2	
Barium	0.020	mg/L	0.010	0.00078	1	04/08/19 11:40	04/11/19 00:18	7440-39-3	
Beryllium	0.00015J	mg/L	0.0030	0.000050	1	04/08/19 11:40	04/11/19 00:18	7440-41-7	
Boron	ND	mg/L	0.040	0.0039	1	04/08/19 11:40	04/11/19 00:18	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000093	1	04/08/19 11:40	04/11/19 00:18	7440-43-9	
Calcium	1.9	mg/L	0.50	0.014	1	04/08/19 11:40	04/11/19 00:18	7440-70-2	
Cobalt	ND	mg/L	0.010	0.00052	1	04/08/19 11:40	04/11/19 00:18	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	04/08/19 11:40	04/11/19 00:18	7439-92-1	
Lithium	ND	mg/L	0.050	0.00097	1	04/08/19 11:40	04/11/19 00:18	7439-93-2	
Selenium	ND	mg/L	0.010	0.0014	1	04/08/19 11:40	04/11/19 00:18	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	04/08/19 11:40	04/11/19 00:18	7440-28-0	
2540C Total Dissolved Solids		Analytical Method: SM 2540C							
Total Dissolved Solids	63.0	mg/L	25.0	10.0	1		04/11/19 19:34		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Chloride	5.9	mg/L	0.25	0.024	1		04/09/19 04:36	16887-00-6	
Fluoride	0.033J	mg/L	0.30	0.029	1		04/09/19 04:36	16984-48-8	
Sulfate	0.29J	mg/L	1.0	0.017	1		04/09/19 04:36	14808-79-8	B

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ANALYTICAL RESULTS

Project: Plant Yates Ash Pond 3

Pace Project No.: 2617035

Sample: YGWC-33S		Lab ID: 2617035011		Collected: 04/04/19 11:35		Received: 04/04/19 17:22		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	04/08/19 11:40	04/11/19 00:30	7440-36-0	
Arsenic	0.0024J	mg/L	0.0050	0.00057	1	04/08/19 11:40	04/11/19 00:30	7440-38-2	
Barium	0.014	mg/L	0.010	0.00078	1	04/08/19 11:40	04/11/19 00:30	7440-39-3	
Beryllium	0.025	mg/L	0.0030	0.000050	1	04/08/19 11:40	04/11/19 00:30	7440-41-7	
Boron	15.4	mg/L	2.0	0.20	50	04/08/19 11:40	04/11/19 00:36	7440-42-8	
Cadmium	0.0035	mg/L	0.0010	0.000093	1	04/08/19 11:40	04/11/19 00:30	7440-43-9	
Calcium	163	mg/L	25.0	0.69	50	04/08/19 11:40	04/11/19 00:36	7440-70-2	
Cobalt	0.031	mg/L	0.010	0.00052	1	04/08/19 11:40	04/11/19 00:30	7440-48-4	
Lead	0.0014J	mg/L	0.0050	0.00027	1	04/08/19 11:40	04/11/19 00:30	7439-92-1	
Lithium	0.035J	mg/L	0.050	0.00097	1	04/08/19 11:40	04/11/19 00:30	7439-93-2	
Selenium	0.012	mg/L	0.010	0.0014	1	04/08/19 11:40	04/11/19 00:30	7782-49-2	
Thallium	0.00018J	mg/L	0.0010	0.00014	1	04/08/19 11:40	04/11/19 00:30	7440-28-0	
2540C Total Dissolved Solids		Analytical Method: SM 2540C							
Total Dissolved Solids	1260	mg/L	25.0	10.0	1		04/11/19 19:34		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Chloride	5.8	mg/L	0.25	0.024	1		04/09/19 05:18	16887-00-6	
Fluoride	0.57	mg/L	0.30	0.029	1		04/09/19 05:18	16984-48-8	
Sulfate	847	mg/L	50.0	0.85	50		04/09/19 10:08	14808-79-8	

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ANALYTICAL RESULTS

Project: Plant Yates Ash Pond 3

Pace Project No.: 2617035

Sample: YGWC-36		Lab ID: 2617035012		Collected: 04/04/19 14:35		Received: 04/04/19 17:22		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	0.0041	mg/L	0.0030	0.00078	1	04/08/19 11:40	04/11/19 00:53	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	04/08/19 11:40	04/11/19 00:53	7440-38-2	
Barium	0.042	mg/L	0.010	0.00078	1	04/08/19 11:40	04/11/19 00:53	7440-39-3	
Beryllium	0.00033J	mg/L	0.0030	0.000050	1	04/08/19 11:40	04/11/19 00:53	7440-41-7	
Boron	0.22	mg/L	0.040	0.0039	1	04/08/19 11:40	04/11/19 00:53	7440-42-8	
Cadmium	0.00019J	mg/L	0.0010	0.000093	1	04/08/19 11:40	04/11/19 00:53	7440-43-9	
Calcium	16.9J	mg/L	25.0	0.69	50	04/08/19 11:40	04/11/19 00:58	7440-70-2	
Cobalt	ND	mg/L	0.010	0.00052	1	04/08/19 11:40	04/11/19 00:53	7440-48-4	
Lead	0.00037J	mg/L	0.0050	0.00027	1	04/08/19 11:40	04/11/19 00:53	7439-92-1	
Lithium	0.0058J	mg/L	0.050	0.00097	1	04/08/19 11:40	04/11/19 00:53	7439-93-2	
Selenium	0.0029J	mg/L	0.010	0.0014	1	04/08/19 11:40	04/11/19 00:53	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	04/08/19 11:40	04/11/19 00:53	7440-28-0	
2540C Total Dissolved Solids		Analytical Method: SM 2540C							
Total Dissolved Solids	240	mg/L	25.0	10.0	1		04/11/19 19:34		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Chloride	5.4	mg/L	0.25	0.024	1		04/09/19 05:38	16887-00-6	
Fluoride	0.043J	mg/L	0.30	0.029	1		04/09/19 05:38	16984-48-8	
Sulfate	119	mg/L	10.0	0.17	10		04/09/19 10:29	14808-79-8	

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ANALYTICAL RESULTS

Project: Plant Yates Ash Pond 3

Pace Project No.: 2617035

Sample: EB-1-4-3-19		Lab ID: 2617035013		Collected: 04/03/19 11:00		Received: 04/04/19 17:22		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	04/08/19 11:40	04/11/19 01:04	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	04/08/19 11:40	04/11/19 01:04	7440-38-2	
Barium	ND	mg/L	0.010	0.00078	1	04/08/19 11:40	04/11/19 01:04	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	04/08/19 11:40	04/11/19 01:04	7440-41-7	
Boron	ND	mg/L	0.040	0.0039	1	04/08/19 11:40	04/11/19 01:04	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000093	1	04/08/19 11:40	04/11/19 01:04	7440-43-9	
Calcium	ND	mg/L	0.50	0.014	1	04/08/19 11:40	04/11/19 01:04	7440-70-2	
Cobalt	ND	mg/L	0.010	0.00052	1	04/08/19 11:40	04/11/19 01:04	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	04/08/19 11:40	04/11/19 01:04	7439-92-1	
Lithium	ND	mg/L	0.050	0.00097	1	04/08/19 11:40	04/11/19 01:04	7439-93-2	
Selenium	ND	mg/L	0.010	0.0014	1	04/08/19 11:40	04/11/19 01:04	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	04/08/19 11:40	04/11/19 01:04	7440-28-0	
2540C Total Dissolved Solids		Analytical Method: SM 2540C							
Total Dissolved Solids	ND	mg/L	25.0	10.0	1		04/10/19 16:34		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Chloride	0.27	mg/L	0.25	0.024	1		04/09/19 05:59	16887-00-6	B
Fluoride	ND	mg/L	0.30	0.029	1		04/09/19 05:59	16984-48-8	
Sulfate	0.14J	mg/L	1.0	0.017	1		04/09/19 05:59	14808-79-8	B

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ANALYTICAL RESULTS

Project: Plant Yates Ash Pond 3

Pace Project No.: 2617035

Sample: EB-2-4-4-19		Lab ID: 2617035014		Collected: 04/04/19 11:25		Received: 04/04/19 17:22		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	04/08/19 11:40	04/11/19 01:10	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	04/08/19 11:40	04/11/19 01:10	7440-38-2	
Barium	ND	mg/L	0.010	0.00078	1	04/08/19 11:40	04/11/19 01:10	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	04/08/19 11:40	04/11/19 01:10	7440-41-7	
Boron	ND	mg/L	0.040	0.0039	1	04/08/19 11:40	04/11/19 01:10	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000093	1	04/08/19 11:40	04/11/19 01:10	7440-43-9	
Calcium	ND	mg/L	0.50	0.014	1	04/08/19 11:40	04/11/19 01:10	7440-70-2	
Cobalt	ND	mg/L	0.010	0.00052	1	04/08/19 11:40	04/11/19 01:10	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	04/08/19 11:40	04/11/19 01:10	7439-92-1	
Lithium	ND	mg/L	0.050	0.00097	1	04/08/19 11:40	04/11/19 01:10	7439-93-2	
Selenium	ND	mg/L	0.010	0.0014	1	04/08/19 11:40	04/11/19 01:10	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	04/08/19 11:40	04/11/19 01:10	7440-28-0	
2540C Total Dissolved Solids		Analytical Method: SM 2540C							
Total Dissolved Solids	ND	mg/L	25.0	10.0	1		04/11/19 19:34		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Chloride	0.23J	mg/L	0.25	0.024	1		04/09/19 06:20	16887-00-6	B
Fluoride	ND	mg/L	0.30	0.029	1		04/09/19 06:20	16984-48-8	
Sulfate	0.069J	mg/L	1.0	0.017	1		04/09/19 06:20	14808-79-8	B

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ANALYTICAL RESULTS

Project: Plant Yates Ash Pond 3

Pace Project No.: 2617035

Sample: Dup-1		Lab ID: 2617035015		Collected: 04/03/19 00:00		Received: 04/04/19 17:22		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	04/08/19 11:40	04/11/19 01:16	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	04/08/19 11:40	04/11/19 01:16	7440-38-2	
Barium	0.016	mg/L	0.010	0.00078	1	04/08/19 11:40	04/11/19 01:16	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	04/08/19 11:40	04/11/19 01:16	7440-41-7	
Boron	ND	mg/L	0.040	0.0039	1	04/08/19 11:40	04/11/19 01:16	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000093	1	04/08/19 11:40	04/11/19 01:16	7440-43-9	
Calcium	8.5	mg/L	0.50	0.014	1	04/08/19 11:40	04/11/19 01:16	7440-70-2	
Cobalt	0.00078J	mg/L	0.010	0.00052	1	04/08/19 11:40	04/11/19 01:16	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	04/08/19 11:40	04/11/19 01:16	7439-92-1	
Lithium	0.014J	mg/L	0.050	0.00097	1	04/08/19 11:40	04/11/19 01:16	7439-93-2	
Selenium	ND	mg/L	0.010	0.0014	1	04/08/19 11:40	04/11/19 01:16	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	04/08/19 11:40	04/11/19 01:16	7440-28-0	
2540C Total Dissolved Solids		Analytical Method: SM 2540C							
Total Dissolved Solids	81.0	mg/L	25.0	10.0	1		04/10/19 16:34		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Chloride	4.6	mg/L	0.25	0.024	1		04/09/19 06:41	16887-00-6	
Fluoride	0.030J	mg/L	0.30	0.029	1		04/09/19 06:41	16984-48-8	
Sulfate	8.5	mg/L	1.0	0.017	1		04/09/19 06:41	14808-79-8	

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ANALYTICAL RESULTS

Project: Plant Yates Ash Pond 3

Pace Project No.: 2617035

Sample: Dup-2		Lab ID: 2617035016		Collected: 04/04/19 00:00		Received: 04/04/19 17:22		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	04/08/19 11:40	04/11/19 01:27	7440-36-0	
Arsenic	0.0022J	mg/L	0.0050	0.00057	1	04/08/19 11:40	04/11/19 01:27	7440-38-2	
Barium	0.012	mg/L	0.010	0.00078	1	04/08/19 11:40	04/11/19 01:27	7440-39-3	
Beryllium	0.023	mg/L	0.0030	0.000050	1	04/08/19 11:40	04/11/19 01:27	7440-41-7	
Boron	9.0	mg/L	0.040	0.0039	1	04/08/19 11:40	04/11/19 01:27	7440-42-8	
Cadmium	0.0032	mg/L	0.0010	0.000093	1	04/08/19 11:40	04/11/19 01:27	7440-43-9	
Calcium	145	mg/L	25.0	0.69	50	04/08/19 11:40	04/11/19 01:33	7440-70-2	
Cobalt	0.029	mg/L	0.010	0.00052	1	04/08/19 11:40	04/11/19 01:27	7440-48-4	
Lead	0.0013J	mg/L	0.0050	0.00027	1	04/08/19 11:40	04/11/19 01:27	7439-92-1	
Lithium	0.033J	mg/L	0.050	0.00097	1	04/08/19 11:40	04/11/19 01:27	7439-93-2	
Selenium	0.011	mg/L	0.010	0.0014	1	04/08/19 11:40	04/11/19 01:27	7782-49-2	
Thallium	0.00017J	mg/L	0.0010	0.00014	1	04/08/19 11:40	04/11/19 01:27	7440-28-0	
2540C Total Dissolved Solids		Analytical Method: SM 2540C							
Total Dissolved Solids	1320	mg/L	25.0	10.0	1		04/11/19 19:34		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Chloride	5.8	mg/L	0.25	0.024	1		04/09/19 07:02	16887-00-6	
Fluoride	0.56	mg/L	0.30	0.029	1		04/09/19 07:02	16984-48-8	
Sulfate	735	mg/L	50.0	0.85	50		04/12/19 05:48	14808-79-8	

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ANALYTICAL RESULTS

Project: Plant Yates Ash Pond 3

Pace Project No.: 2617035

Sample: FB-1-4-3-19		Lab ID: 2617035017		Collected: 04/03/19 13:20		Received: 04/04/19 17:22		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	04/08/19 11:40	04/11/19 01:56	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	04/08/19 11:40	04/11/19 01:56	7440-38-2	
Barium	ND	mg/L	0.010	0.00078	1	04/08/19 11:40	04/11/19 01:56	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	04/08/19 11:40	04/11/19 01:56	7440-41-7	
Boron	ND	mg/L	0.040	0.0039	1	04/08/19 11:40	04/11/19 01:56	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000093	1	04/08/19 11:40	04/11/19 01:56	7440-43-9	
Calcium	0.016J	mg/L	0.50	0.014	1	04/08/19 11:40	04/11/19 01:56	7440-70-2	
Cobalt	ND	mg/L	0.010	0.00052	1	04/08/19 11:40	04/11/19 01:56	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	04/08/19 11:40	04/11/19 01:56	7439-92-1	
Lithium	ND	mg/L	0.050	0.00097	1	04/08/19 11:40	04/11/19 01:56	7439-93-2	
Selenium	ND	mg/L	0.010	0.0014	1	04/08/19 11:40	04/11/19 01:56	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	04/08/19 11:40	04/11/19 01:56	7440-28-0	
2540C Total Dissolved Solids		Analytical Method: SM 2540C							
Total Dissolved Solids	ND	mg/L	25.0	10.0	1		04/10/19 16:34		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Chloride	0.31	mg/L	0.25	0.024	1		04/09/19 07:22	16887-00-6	B
Fluoride	ND	mg/L	0.30	0.029	1		04/09/19 07:22	16984-48-8	
Sulfate	3.5	mg/L	1.0	0.017	1		04/09/19 07:22	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Yates Ash Pond 3

Pace Project No.: 2617035

Sample: FB-2-4-4-19		Lab ID: 2617035018		Collected: 04/04/19 13:25	Received: 04/04/19 17:22	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	04/08/19 11:40	04/11/19 02:01	7440-36-0		
Arsenic	ND	mg/L	0.0050	0.00057	1	04/08/19 11:40	04/11/19 02:01	7440-38-2		
Barium	ND	mg/L	0.010	0.00078	1	04/08/19 11:40	04/11/19 02:01	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000050	1	04/08/19 11:40	04/11/19 02:01	7440-41-7		
Boron	ND	mg/L	0.040	0.0039	1	04/08/19 11:40	04/11/19 02:01	7440-42-8		
Cadmium	ND	mg/L	0.0010	0.000093	1	04/08/19 11:40	04/11/19 02:01	7440-43-9		
Calcium	ND	mg/L	0.50	0.014	1	04/08/19 11:40	04/11/19 02:01	7440-70-2		
Cobalt	ND	mg/L	0.010	0.00052	1	04/08/19 11:40	04/11/19 02:01	7440-48-4		
Lead	ND	mg/L	0.0050	0.00027	1	04/08/19 11:40	04/11/19 02:01	7439-92-1		
Lithium	ND	mg/L	0.050	0.00097	1	04/08/19 11:40	04/11/19 02:01	7439-93-2		
Selenium	ND	mg/L	0.010	0.0014	1	04/08/19 11:40	04/11/19 02:01	7782-49-2		
Thallium	ND	mg/L	0.0010	0.00014	1	04/08/19 11:40	04/11/19 02:01	7440-28-0		
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	ND	mg/L	25.0	10.0	1		04/11/19 19:34			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Chloride	0.10J	mg/L	0.25	0.024	1		04/09/19 09:06	16887-00-6	B	
Fluoride	ND	mg/L	0.30	0.029	1		04/09/19 09:06	16984-48-8		
Sulfate	0.033J	mg/L	1.0	0.017	1		04/09/19 09:06	14808-79-8	B	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Yates Ash Pond 3
Pace Project No.: 2617035

QC Batch: 25995 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020B MET
Associated Lab Samples: 2617035001, 2617035002, 2617035003, 2617035004, 2617035005, 2617035006, 2617035007, 2617035008, 2617035009, 2617035010, 2617035011, 2617035012, 2617035013, 2617035014, 2617035015, 2617035016, 2617035017, 2617035018

METHOD BLANK: 117356 Matrix: Water
Associated Lab Samples: 2617035001, 2617035002, 2617035003, 2617035004, 2617035005, 2617035006, 2617035007, 2617035008, 2617035009, 2617035010, 2617035011, 2617035012, 2617035013, 2617035014, 2617035015, 2617035016, 2617035017, 2617035018

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00078	04/10/19 21:32	
Arsenic	mg/L	ND	0.0050	0.00057	04/10/19 21:32	
Barium	mg/L	ND	0.010	0.00078	04/10/19 21:32	
Beryllium	mg/L	ND	0.0030	0.000050	04/10/19 21:32	
Boron	mg/L	ND	0.040	0.0039	04/10/19 21:32	
Cadmium	mg/L	ND	0.0010	0.000093	04/10/19 21:32	
Calcium	mg/L	ND	0.50	0.014	04/10/19 21:32	
Cobalt	mg/L	ND	0.010	0.00052	04/10/19 21:32	
Lead	mg/L	ND	0.0050	0.00027	04/10/19 21:32	
Lithium	mg/L	ND	0.050	0.00097	04/10/19 21:32	
Selenium	mg/L	ND	0.010	0.0014	04/10/19 21:32	
Thallium	mg/L	ND	0.0010	0.00014	04/10/19 21:32	

LABORATORY CONTROL SAMPLE: 117357

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.11	110	80-120	
Arsenic	mg/L	0.1	0.10	101	80-120	
Barium	mg/L	0.1	0.11	106	80-120	
Beryllium	mg/L	0.1	0.11	110	80-120	
Boron	mg/L	1	1.1	109	80-120	
Cadmium	mg/L	0.1	0.11	108	80-120	
Calcium	mg/L	1	1.0	102	80-120	
Cobalt	mg/L	0.1	0.10	105	80-120	
Lead	mg/L	0.1	0.10	101	80-120	
Lithium	mg/L	0.1	0.11	109	80-120	
Selenium	mg/L	0.1	0.099	99	80-120	
Thallium	mg/L	0.1	0.10	101	80-120	

MATRIX SPIKE SAMPLE: 117359

Parameter	Units	2617035001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	ND	0.1	0.11	110	75-125	
Arsenic	mg/L	ND	0.1	0.10	101	75-125	
Barium	mg/L	0.017	0.1	0.12	106	75-125	

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QUALITY CONTROL DATA

Project: Plant Yates Ash Pond 3

Pace Project No.: 2617035

MATRIX SPIKE SAMPLE:		117359					
Parameter	Units	2617035001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Beryllium	mg/L	ND	0.1	0.098	98	75-125	
Boron	mg/L	0.0055J	1	0.99	98	75-125	
Cadmium	mg/L	ND	0.1	0.11	106	75-125	
Calcium	mg/L	8.4	1	9.4	107	75-125	
Cobalt	mg/L	0.00083J	0.1	0.10	103	75-125	
Lead	mg/L	ND	0.1	0.10	102	75-125	
Lithium	mg/L	0.014J	0.1	0.11	100	75-125	
Selenium	mg/L	ND	0.1	0.10	101	75-125	
Thallium	mg/L	ND	0.1	0.10	101	75-125	

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QUALITY CONTROL DATA

Project: Plant Yates Ash Pond 3
Pace Project No.: 2617035

QC Batch: 26059	Analysis Method: SM 2540C
QC Batch Method: SM 2540C	Analysis Description: 2540C Total Dissolved Solids
Associated Lab Samples: 2617035004, 2617035008	

LABORATORY CONTROL SAMPLE: 117667

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	407	102	84-108	

SAMPLE DUPLICATE: 117668

Parameter	Units	2616931001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	540	670	21	10	D6

SAMPLE DUPLICATE: 117669

Parameter	Units	2617082006 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	728	766	5	10	

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QUALITY CONTROL DATA

Project: Plant Yates Ash Pond 3
Pace Project No.: 2617035

QC Batch: 26131 Analysis Method: SM 2540C
QC Batch Method: SM 2540C Analysis Description: 2540C Total Dissolved Solids
Associated Lab Samples: 2617035001, 2617035002, 2617035003, 2617035005, 2617035006, 2617035007, 2617035013, 2617035015, 2617035017

LABORATORY CONTROL SAMPLE: 117963

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	408	102	84-108	

SAMPLE DUPLICATE: 117964

Parameter	Units	2617035001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	111	103	7	10	

SAMPLE DUPLICATE: 117965

Parameter	Units	2617076005 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	2180	2110	3	10	

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QUALITY CONTROL DATA

Project: Plant Yates Ash Pond 3
Pace Project No.: 2617035

QC Batch: 26251 Analysis Method: SM 2540C
QC Batch Method: SM 2540C Analysis Description: 2540C Total Dissolved Solids
Associated Lab Samples: 2617035009, 2617035010, 2617035011, 2617035012, 2617035014, 2617035016, 2617035018

LABORATORY CONTROL SAMPLE: 118507

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	404	101	84-108	

SAMPLE DUPLICATE: 118508

Parameter	Units	2617035009 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	85.0	50.0	52	10	D6

SAMPLE DUPLICATE: 118509

Parameter	Units	2617069003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	340	341	0	10	

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QUALITY CONTROL DATA

Project: Plant Yates Ash Pond 3
Pace Project No.: 2617035

QC Batch: 25956 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 2617035001, 2617035002, 2617035003, 2617035004, 2617035005, 2617035006, 2617035007, 2617035008, 2617035009, 2617035010, 2617035011, 2617035012, 2617035013, 2617035014, 2617035015, 2617035016, 2617035017, 2617035018

METHOD BLANK: 117263 Matrix: Water
Associated Lab Samples: 2617035001, 2617035002, 2617035003, 2617035004, 2617035005, 2617035006, 2617035007, 2617035008, 2617035009, 2617035010, 2617035011, 2617035012, 2617035013, 2617035014, 2617035015, 2617035016, 2617035017, 2617035018

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	0.066J	0.25	0.024	04/08/19 22:43	
Fluoride	mg/L	ND	0.30	0.029	04/08/19 22:43	
Sulfate	mg/L	0.045J	1.0	0.017	04/08/19 22:43	

LABORATORY CONTROL SAMPLE: 117264

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	10	9.8	98	90-110	
Fluoride	mg/L	10	9.7	97	90-110	
Sulfate	mg/L	10	9.7	97	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 117265 117266

Parameter	Units	2617035001 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	14.3	14.4	100	101	90-110	1	15	
Fluoride	mg/L	ND	10	10	9.7	9.8	97	98	90-110	1	15	
Sulfate	mg/L	8.5	10	10	17.6	17.7	91	92	90-110	0	15	

MATRIX SPIKE SAMPLE: 117267

Parameter	Units	2617035002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	4.2	10	13.9	96	90-110	
Fluoride	mg/L	ND	10	9.3	93	90-110	
Sulfate	mg/L	2.1	10	11.2	91	90-110	

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REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: Plant Yates Ash Pond 3

Pace Project No.: 2617035

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.

D6 The precision between the sample and sample duplicate exceeded laboratory control limits.

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 Ash Pond 3

Pace Project No.: 2617035

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2617035001	YGWA-4I	EPA 3005A	25995	EPA 6020B	26012
2617035002	YGWA-5I	EPA 3005A	25995	EPA 6020B	26012
2617035003	YGWA-5D	EPA 3005A	25995	EPA 6020B	26012
2617035004	YGWA-17S	EPA 3005A	25995	EPA 6020B	26012
2617035005	YGWA-18S	EPA 3005A	25995	EPA 6020B	26012
2617035006	YGWA-18I	EPA 3005A	25995	EPA 6020B	26012
2617035007	YGWA-20S	EPA 3005A	25995	EPA 6020B	26012
2617035008	YGWA-21I	EPA 3005A	25995	EPA 6020B	26012
2617035009	YGWC-23S	EPA 3005A	25995	EPA 6020B	26012
2617035010	YGWC-24S	EPA 3005A	25995	EPA 6020B	26012
2617035011	YGWC-33S	EPA 3005A	25995	EPA 6020B	26012
2617035012	YGWC-36	EPA 3005A	25995	EPA 6020B	26012
2617035013	EB-1-4-3-19	EPA 3005A	25995	EPA 6020B	26012
2617035014	EB-2-4-4-19	EPA 3005A	25995	EPA 6020B	26012
2617035015	Dup-1	EPA 3005A	25995	EPA 6020B	26012
2617035016	Dup-2	EPA 3005A	25995	EPA 6020B	26012
2617035017	FB-1-4-3-19	EPA 3005A	25995	EPA 6020B	26012
2617035018	FB-2-4-4-19	EPA 3005A	25995	EPA 6020B	26012
2617035001	YGWA-4I	SM 2540C	26131		
2617035002	YGWA-5I	SM 2540C	26131		
2617035003	YGWA-5D	SM 2540C	26131		
2617035004	YGWA-17S	SM 2540C	26059		
2617035005	YGWA-18S	SM 2540C	26131		
2617035006	YGWA-18I	SM 2540C	26131		
2617035007	YGWA-20S	SM 2540C	26131		
2617035008	YGWA-21I	SM 2540C	26059		
2617035009	YGWC-23S	SM 2540C	26251		
2617035010	YGWC-24S	SM 2540C	26251		
2617035011	YGWC-33S	SM 2540C	26251		
2617035012	YGWC-36	SM 2540C	26251		
2617035013	EB-1-4-3-19	SM 2540C	26131		
2617035014	EB-2-4-4-19	SM 2540C	26251		
2617035015	Dup-1	SM 2540C	26131		
2617035016	Dup-2	SM 2540C	26251		
2617035017	FB-1-4-3-19	SM 2540C	26131		
2617035018	FB-2-4-4-19	SM 2540C	26251		
2617035001	YGWA-4I	EPA 300.0	25956		
2617035002	YGWA-5I	EPA 300.0	25956		
2617035003	YGWA-5D	EPA 300.0	25956		
2617035004	YGWA-17S	EPA 300.0	25956		
2617035005	YGWA-18S	EPA 300.0	25956		
2617035006	YGWA-18I	EPA 300.0	25956		
2617035007	YGWA-20S	EPA 300.0	25956		

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Yates Ash Pond 3

Pace Project No.: 2617035

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2617035008	YGWA-21I	EPA 300.0	25956		
2617035009	YGWC-23S	EPA 300.0	25956		
2617035010	YGWC-24S	EPA 300.0	25956		
2617035011	YGWC-33S	EPA 300.0	25956		
2617035012	YGWC-36	EPA 300.0	25956		
2617035013	EB-1-4-3-19	EPA 300.0	25956		
2617035014	EB-2-4-4-19	EPA 300.0	25956		
2617035015	Dup-1	EPA 300.0	25956		
2617035016	Dup-2	EPA 300.0	25956		
2617035017	FB-1-4-3-19	EPA 300.0	25956		
2617035018	FB-2-4-4-19	EPA 300.0	25956		

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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

PAGE: 1

OF 2

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 REQUESTED COMPLETION DATE: PROJECT NAME/STATE: Plant Yates - Ash Pond 3 PROJECT #:		CONTAINER TYPE: P PRESERVATION: 3 # of CONTAINERS: 4		ANALYSIS REQUESTED: Metals App, III (EPA 6020/7470) Boron, Calcium Cl, F, SO ₄ & TDS (EPA 300.0 & SM 2540C) Detected App IV (See List below) Det. App. IV Radium 226 & 228 (SW-846 9315/9320)		CONTAINER TYPE: P- PLASTIC A- AMBER GLASS G- CLEAR GLASS V- VQA-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/ZnAc, 56°C 6- Na ₂ S ₂ O ₃ , 56°C 7- 56°C not frozen	
RECEIVED BY LAB: C. Parker, H. Auld RECEIVED BY: See above DATE/TIME: 4-4-19 13:56 DATE/TIME: See above		RELINQUISHED BY: [Signature] DATE/TIME: 4-4-19 17:22		RELINQUISHED BY: [Signature] DATE/TIME: 4-4-19 17:22		LAB #: Entered into LIMS: Tracking #:	
RECEIVED BY LAB: [Signature] DATE/TIME: 4-4-19 17:22 Temp (F): 0.5 Temp (C): 0.5		SAMPLE SHIPPED VIA: UPS FED-EX USPS COURIER OTHER FS # of Containers		CLIENT: OTHER FS Order ID:		REMARKS/ADDITIONAL INFORMATION: APP III plus detected APP IV WO# : 2617035 	
EXTRA RED HERE FOR LAB USE ONLY							

APP III, plus Detected APP IV

Detected APP IV: Antimony, Arsenic, Barium, Beryllium, Cadmium, Cobalt, Fluoride, Lead, Lithium, Selenium, Thallium, Radium
 Bolded Detections: Listed above or included with App III
 Yates Ash Pond 3 - Blank COCs.xlsx



Pace Analytical Services, Inc.
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CHAIN OF CUSTODY RECORD

PAGE: 2 OF 2

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 REQUESTED COMPLETION DATE: PROJECT NAME/STATE: Plant Yates - Ash Pond 3 PROJECT #:		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 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: APP III plus detected APP IV																																																																							
CONTAINERS <table border="1"> <thead> <tr> <th>CONTAINER TYPE</th> <th>P</th> <th>P</th> <th>P</th> <th>P</th> </tr> <tr> <th># of</th> <th>3</th> <th>7</th> <th>3</th> <th>3</th> </tr> </thead> <tbody> <tr> <td>Metals App. III (EPA 6020/470)</td> <td>✓</td> <td>✓</td> <td>✓</td> <td>✓</td> </tr> <tr> <td>Boron, Calcium</td> <td>✓</td> <td>✓</td> <td>✓</td> <td>✓</td> </tr> <tr> <td>Cl, F, SO₄ & TDS (EPA 300.0 & SM 2540C)</td> <td>✓</td> <td>✓</td> <td>✓</td> <td>✓</td> </tr> <tr> <td>Detected App IV (See List below)</td> <td>✓</td> <td>✓</td> <td>✓</td> <td>✓</td> </tr> <tr> <td>Det App. IV Radium 226 & 228 (SW-846 9315/9320)</td> <td>✓</td> <td>✓</td> <td>✓</td> <td>✓</td> </tr> </tbody> </table>		CONTAINER TYPE	P	P	P	P	# of	3	7	3	3	Metals App. III (EPA 6020/470)	✓	✓	✓	✓	Boron, Calcium	✓	✓	✓	✓	Cl, F, SO ₄ & TDS (EPA 300.0 & SM 2540C)	✓	✓	✓	✓	Detected App IV (See List below)	✓	✓	✓	✓	Det App. IV Radium 226 & 228 (SW-846 9315/9320)	✓	✓	✓	✓	ANALYSIS REQUESTED <table border="1"> <thead> <tr> <th>CONTAINER TYPE</th> <th>P</th> <th>P</th> <th>P</th> <th>P</th> </tr> <tr> <th># of</th> <th>3</th> <th>7</th> <th>3</th> <th>3</th> </tr> </thead> <tbody> <tr> <td>Metals App. III (EPA 6020/470)</td> <td>✓</td> <td>✓</td> <td>✓</td> <td>✓</td> </tr> <tr> <td>Boron, Calcium</td> <td>✓</td> <td>✓</td> <td>✓</td> <td>✓</td> </tr> <tr> <td>Cl, F, SO₄ & TDS (EPA 300.0 & SM 2540C)</td> <td>✓</td> <td>✓</td> <td>✓</td> <td>✓</td> </tr> <tr> <td>Detected App IV (See List below)</td> <td>✓</td> <td>✓</td> <td>✓</td> <td>✓</td> </tr> <tr> <td>Det App. IV Radium 226 & 228 (SW-846 9315/9320)</td> <td>✓</td> <td>✓</td> <td>✓</td> <td>✓</td> </tr> </tbody> </table>		CONTAINER TYPE	P	P	P	P	# of	3	7	3	3	Metals App. III (EPA 6020/470)	✓	✓	✓	✓	Boron, Calcium	✓	✓	✓	✓	Cl, F, SO ₄ & TDS (EPA 300.0 & SM 2540C)	✓	✓	✓	✓	Detected App IV (See List below)	✓	✓	✓	✓	Det App. IV Radium 226 & 228 (SW-846 9315/9320)	✓	✓	✓	✓
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DATE/TIME: 4-3-19 1100 DATE/TIME: 4-4-19 1125 DATE/TIME: 4-4-19 DATE/TIME: 4-4-19 DATE/TIME: 4-3-19 1320 DATE/TIME: 4-4-19 1325		DATE/TIME: 4-4-19 1722 DATE/TIME: 4-4-19 1722																																																																							
SAMPLED BY AND TITLE: C. Parker, H. Gold RECEIVED BY:		RELINQUISHED BY: [Signature] RELINQUISHED BY: [Signature]																																																																							
RECEIVED BY LAB: [Signature] RECEIVED BY: [Signature]		SAMPLE SHIPPED VIA: UPS SHIPMENT STATUS: Intact, Broken, Not Present																																																																							
LAB #: 2617035 CLIENT: GRPower-CCR PH. DATE: 04/12/19 WO#: 2617035		LAB #: 1722 ENTER INTO LIMS:																																																																							

APP III, plus Detected APP IV

Detected APP IV: Antimony, Arsenic, Barium, Beryllium, Cadmium, Cobalt, Fluoride, Lead, Lithium, Selenium, Thallium, Radium
 Bolded Detections: Listed above or included with App III
 Yates Ash Pond 3 - Blank COCs.xlsx



Sample Condition Upon Receipt

Client Name: GLA Power

Project # _____

WO#: **2617035**

PM: **BM** Due Date: **04/12/19**
CLIENT: **GAPower-CCR**

Courier: Fed Ex UPS USPS Client Commercial Pace Other
Tracking #: _____

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

Packing Material: Bubble Wrap Bubble Bags None Other

Thermometer Used 83 Type of Ice: Wet Blue None

Cooler Temperature 0.5 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: 4/4/19 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 type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	10.	<u>see comment</u>	
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 / I / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: 1 Radium container box YGWC-24S
arrived to the lab with a very limited sample vol.
secondary to lid not being closed tight.

Project Manager Review: _____ Date: _____

April 29, 2019

Joju Abraham
Georgia Power - Coal Combustion Residuals
2480 Maner Road
Atlanta, GA 30339

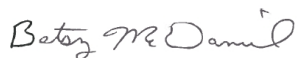
RE: Project: Plant Yates Ash Pond 3
Pace Project No.: 2617037

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on April 04, 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 Ash Pond 3
Pace Project No.: 2617037

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
Florida: Cert E871149 SEKS WET
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 Ash Pond 3
Pace Project No.: 2617037

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2617037001	YGWA-4I	Water	04/03/19 13:50	04/04/19 17:22
2617037002	YGWA-5I	Water	04/03/19 15:40	04/04/19 17:22
2617037003	YGWA-5D	Water	04/03/19 13:55	04/04/19 17:22
2617037004	YGWA-17S	Water	04/02/19 15:10	04/04/19 17:22
2617037005	YGWA-18S	Water	04/03/19 10:15	04/04/19 17:22
2617037006	YGWA-18I	Water	04/03/19 11:35	04/04/19 17:22
2617037007	YGWA-20S	Water	04/03/19 12:30	04/04/19 17:22
2617037008	YGWA-21I	Water	04/02/19 15:56	04/04/19 17:22
2617037009	YGWC-23S	Water	04/04/19 13:05	04/04/19 17:22
2617037011	YGWC-33S	Water	04/04/19 11:35	04/04/19 17:22
2617037012	YGWC-36	Water	04/04/19 14:35	04/04/19 17:22
2617037013	EB-1-4-3-19	Water	04/03/19 11:00	04/04/19 17:22
2617037014	EB-2-4-4-19	Water	04/04/19 11:25	04/04/19 17:22
2617037015	Dup-1	Water	04/03/19 00:00	04/04/19 17:22
2617037016	Dup-2	Water	04/04/19 00:00	04/04/19 17:22
2617037017	FB-1-4-3-19	Water	04/03/19 13:20	04/04/19 17:22
2617037018	FB-2-4-4-19	Water	04/04/19 13:25	04/04/19 17:22

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: Plant Yates Ash Pond 3

Pace Project No.: 2617037

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2617037001	YGWA-4I	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2617037002	YGWA-5I	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2617037003	YGWA-5D	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2617037004	YGWA-17S	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2617037005	YGWA-18S	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2617037006	YGWA-18I	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2617037007	YGWA-20S	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2617037008	YGWA-21I	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2617037009	YGWC-23S	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2617037011	YGWC-33S	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2617037012	YGWC-36	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2617037013	EB-1-4-3-19	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2617037014	EB-2-4-4-19	EPA 9315	LAL	1	PASI-PA

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: Plant Yates Ash Pond 3

Pace Project No.: 2617037

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2617037015	Dup-1	EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
2617037016	Dup-2	Total Radium Calculation	CMC	1	PASI-PA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2617037017	FB-1-4-3-19	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		EPA 9315	LAL	1	PASI-PA
2617037018	FB-2-4-4-19	EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		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 Ash Pond 3

Pace Project No.: 2617037

Sample: YGWA-4I **Lab ID: 2617037001** Collected: 04/03/19 13:50 Received: 04/04/19 17:22 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.956 ± 0.433 (0.582) C:96% T:NA	pCi/L	04/17/19 09:02	13982-63-3	
Radium-228	EPA 9320	0.111 ± 0.339 (0.762) C:85% T:80%	pCi/L	04/18/19 15:36	15262-20-1	
Total Radium	Total Radium Calculation	1.07 ± 0.772 (1.34)	pCi/L	04/22/19 11:21	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Pond 3

Pace Project No.: 2617037

Sample: YGWA-5I **Lab ID: 2617037002** Collected: 04/03/19 15:40 Received: 04/04/19 17:22 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.294 ± 0.225 (0.342) C:102% T:NA	pCi/L	04/17/19 08:08	13982-63-3	
Radium-228	EPA 9320	0.136 ± 0.397 (0.886) C:86% T:78%	pCi/L	04/18/19 15:36	15262-20-1	
Total Radium	Total Radium Calculation	0.430 ± 0.622 (1.23)	pCi/L	04/22/19 11:21	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Pond 3

Pace Project No.: 2617037

Sample: YGWA-5D **Lab ID: 2617037003** Collected: 04/03/19 13:55 Received: 04/04/19 17:22 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	3.23 ± 0.801 (0.382) C:97% T:NA	pCi/L	04/17/19 08:08	13982-63-3	
Radium-228	EPA 9320	1.56 ± 0.525 (0.732) C:84% T:82%	pCi/L	04/18/19 15:36	15262-20-1	
Total Radium	Total Radium Calculation	4.79 ± 1.33 (1.11)	pCi/L	04/22/19 11:21	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Pond 3

Pace Project No.: 2617037

Sample: YGWA-17S **Lab ID: 2617037004** Collected: 04/02/19 15:10 Received: 04/04/19 17:22 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.306 ± 0.213 (0.295) C:102% T:NA	pCi/L	04/17/19 08:08	13982-63-3	
Radium-228	EPA 9320	0.541 ± 0.415 (0.820) C:72% T:81%	pCi/L	04/18/19 14:52	15262-20-1	
Total Radium	Total Radium Calculation	0.847 ± 0.628 (1.12)	pCi/L	04/22/19 11:21	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Pond 3

Pace Project No.: 2617037

Sample: YGWA-18S **Lab ID: 2617037005** Collected: 04/03/19 10:15 Received: 04/04/19 17:22 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.182 ± 0.200 (0.386) C:97% T:NA	pCi/L	04/17/19 08:08	13982-63-3	
Radium-228	EPA 9320	0.247 ± 0.296 (0.626) C:81% T:92%	pCi/L	04/18/19 14:52	15262-20-1	
Total Radium	Total Radium Calculation	0.429 ± 0.496 (1.01)	pCi/L	04/22/19 11:21	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Pond 3

Pace Project No.: 2617037

Sample: YGWA-181 **Lab ID: 2617037006** Collected: 04/03/19 11:35 Received: 04/04/19 17:22 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.385 ± 0.266 (0.419) C:98% T:NA	pCi/L	04/17/19 08:08	13982-63-3	
Radium-228	EPA 9320	-0.0186 ± 0.267 (0.636) C:80% T:76%	pCi/L	04/18/19 14:53	15262-20-1	
Total Radium	Total Radium Calculation	0.385 ± 0.533 (1.06)	pCi/L	04/22/19 11:21	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Pond 3

Pace Project No.: 2617037

Sample: YGWA-20S **Lab ID: 2617037007** Collected: 04/03/19 12:30 Received: 04/04/19 17:22 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 ± 0.218 (0.305) C:112% T:NA	pCi/L	04/17/19 08:08	13982-63-3	
Radium-228	EPA 9320	0.685 ± 0.361 (0.625) C:76% T:82%	pCi/L	04/18/19 14:53	15262-20-1	
Total Radium	Total Radium Calculation	1.01 ± 0.579 (0.930)	pCi/L	04/22/19 11:21	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Pond 3

Pace Project No.: 2617037

Sample: YGWA-211 **Lab ID: 2617037008** Collected: 04/02/19 15:56 Received: 04/04/19 17:22 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.670 ± 0.333 (0.396) C:91% T:NA	pCi/L	04/17/19 08:08	13982-63-3	
Radium-228	EPA 9320	0.752 ± 0.391 (0.687) C:80% T:79%	pCi/L	04/18/19 14:52	15262-20-1	
Total Radium	Total Radium Calculation	1.42 ± 0.724 (1.08)	pCi/L	04/22/19 11:21	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Pond 3

Pace Project No.: 2617037

Sample: YGWC-23S **Lab ID: 2617037009** Collected: 04/04/19 13:05 Received: 04/04/19 17:22 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.0780 ± 0.159 (0.370) C:91% T:NA	pCi/L	04/18/19 09:01	13982-63-3	
Radium-228	EPA 9320	0.396 ± 0.357 (0.723) C:87% T:74%	pCi/L	04/18/19 15:38	15262-20-1	
Total Radium	Total Radium Calculation	0.474 ± 0.516 (1.09)	pCi/L	04/22/19 11:25	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Pond 3

Pace Project No.: 2617037

Sample: YGWC-33S **Lab ID: 2617037011** Collected: 04/04/19 11:35 Received: 04/04/19 17:22 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.558 ± 0.231 (0.255) C:100% T:NA	pCi/L	04/16/19 21:13	13982-63-3	
Radium-228	EPA 9320	0.578 ± 0.372 (0.704) C:85% T:81%	pCi/L	04/18/19 15:36	15262-20-1	
Total Radium	Total Radium Calculation	1.14 ± 0.603 (0.959)	pCi/L	04/22/19 11:21	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Pond 3

Pace Project No.: 2617037

Sample: YGWC-36 **Lab ID: 2617037012** Collected: 04/04/19 14:35 Received: 04/04/19 17:22 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.484 ± 0.287 (0.376) C:91% T:NA	pCi/L	04/18/19 09:01	13982-63-3	
Radium-228	EPA 9320	0.569 ± 0.439 (0.878) C:83% T:81%	pCi/L	04/18/19 15:36	15262-20-1	
Total Radium	Total Radium Calculation	1.05 ± 0.726 (1.25)	pCi/L	04/22/19 11:25	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Pond 3

Pace Project No.: 2617037

Sample: EB-1-4-3-19 **Lab ID: 2617037013** Collected: 04/03/19 11:00 Received: 04/04/19 17:22 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 ± 0.225 (0.349) C:84% T:NA	pCi/L	04/17/19 08:08	13982-63-3	
Radium-228	EPA 9320	-0.0998 ± 0.290 (0.703) C:78% T:79%	pCi/L	04/18/19 14:52	15262-20-1	
Total Radium	Total Radium Calculation	0.280 ± 0.515 (1.05)	pCi/L	04/22/19 11:21	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Pond 3

Pace Project No.: 2617037

Sample: EB-2-4-4-19 **Lab ID: 2617037014** Collected: 04/04/19 11:25 Received: 04/04/19 17:22 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.240 ± 0.170 (0.276) C:97% T:NA	pCi/L	04/16/19 21:13	13982-63-3	
Radium-228	EPA 9320	0.461 ± 0.372 (0.743) C:88% T:78%	pCi/L	04/18/19 15:36	15262-20-1	
Total Radium	Total Radium Calculation	0.701 ± 0.542 (1.02)	pCi/L	04/22/19 11:21	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Pond 3

Pace Project No.: 2617037

Sample: Dup-1 **Lab ID: 2617037015** Collected: 04/03/19 00:00 Received: 04/04/19 17:22 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.899 ± 0.397 (0.447) C:88% T:NA	pCi/L	04/17/19 08:08	13982-63-3	
Radium-228	EPA 9320	0.358 ± 0.307 (0.614) C:81% T:83%	pCi/L	04/18/19 14:52	15262-20-1	
Total Radium	Total Radium Calculation	1.26 ± 0.704 (1.06)	pCi/L	04/22/19 11:21	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Pond 3

Pace Project No.: 2617037

Sample: Dup-2 **Lab ID: 2617037016** Collected: 04/04/19 00:00 Received: 04/04/19 17:22 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 ± 0.334 (0.332) C:101% T:NA	pCi/L	04/17/19 08:23	13982-63-3	
Radium-228	EPA 9320	0.278 ± 0.368 (0.785) C:86% T:80%	pCi/L	04/18/19 15:36	15262-20-1	
Total Radium	Total Radium Calculation	1.03 ± 0.702 (1.12)	pCi/L	04/22/19 11:21	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Pond 3

Pace Project No.: 2617037

Sample: FB-1-4-3-19 **Lab ID: 2617037017** Collected: 04/03/19 13:20 Received: 04/04/19 17:22 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.138 ± 0.190 (0.398) C:96% T:NA	pCi/L	04/17/19 08:08	13982-63-3	
Radium-228	EPA 9320	0.366 ± 0.336 (0.680) C:80% T:77%	pCi/L	04/18/19 14:53	15262-20-1	
Total Radium	Total Radium Calculation	0.504 ± 0.526 (1.08)	pCi/L	04/22/19 11:21	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Pond 3

Pace Project No.: 2617037

Sample: FB-2-4-4-19 **Lab ID: 2617037018** Collected: 04/04/19 13:25 Received: 04/04/19 17:22 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 ± 0.236 (0.391) C:87% T:NA	pCi/L	04/18/19 09:01	13982-63-3	
Radium-228	EPA 9320	0.0312 ± 0.316 (0.727) C:86% T:81%	pCi/L	04/18/19 15:36	15262-20-1	
Total Radium	Total Radium Calculation	0.319 ± 0.552 (1.12)	pCi/L	04/22/19 11:25	7440-14-4	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Yates Ash Pond 3

Pace Project No.: 2617037

QC Batch:	337921	Analysis Method:	EPA 9315
QC Batch Method:	EPA 9315	Analysis Description:	9315 Total Radium
Associated Lab Samples:	2617037009, 2617037012, 2617037018		

METHOD BLANK:	1644534	Matrix:	Water
Associated Lab Samples:	2617037009, 2617037012, 2617037018		

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.156 ± 0.184 (0.361) C:97% T:NA	pCi/L	04/18/19 09:01	

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 Pond 3

Pace Project No.: 2617037

QC Batch:	337919	Analysis Method:	EPA 9315
QC Batch Method:	EPA 9315	Analysis Description:	9315 Total Radium
Associated Lab Samples:	2617037001, 2617037002, 2617037003, 2617037004, 2617037005, 2617037006, 2617037007, 2617037008, 2617037011, 2617037013, 2617037014, 2617037015, 2617037016, 2617037017		

METHOD BLANK:	1644532	Matrix:	Water
Associated Lab Samples:	2617037001, 2617037002, 2617037003, 2617037004, 2617037005, 2617037006, 2617037007, 2617037008, 2617037011, 2617037013, 2617037014, 2617037015, 2617037016, 2617037017		

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.211 ± 0.257 (0.538) C:93% T:NA	pCi/L	04/17/19 07:57	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Yates Ash Pond 3

Pace Project No.: 2617037

QC Batch:	337912	Analysis Method:	EPA 9320
QC Batch Method:	EPA 9320	Analysis Description:	9320 Radium 228
Associated Lab Samples:	2617037001, 2617037002, 2617037003, 2617037004, 2617037005, 2617037006, 2617037007, 2617037008, 2617037011, 2617037013, 2617037014, 2617037015, 2617037016, 2617037017		

METHOD BLANK:	1644522	Matrix:	Water
Associated Lab Samples:	2617037001, 2617037002, 2617037003, 2617037004, 2617037005, 2617037006, 2617037007, 2617037008, 2617037011, 2617037013, 2617037014, 2617037015, 2617037016, 2617037017		

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.129 ± 0.341 (0.763) C:81% T:73%	pCi/L	04/18/19 11:47	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Yates Ash Pond 3

Pace Project No.: 2617037

QC Batch: 337913

Analysis Method: EPA 9320

QC Batch Method: EPA 9320

Analysis Description: 9320 Radium 228

Associated Lab Samples: 2617037009, 2617037012, 2617037018

METHOD BLANK: 1644523

Matrix: Water

Associated Lab Samples: 2617037009, 2617037012, 2617037018

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.226 ± 0.293 (0.621) C:88% T:75%	pCi/L	04/18/19 15:38	

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QUALIFIERS

Project: Plant Yates Ash Pond 3

Pace Project No.: 2617037

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 Ash Pond 3
Pace Project No.: 2617037

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2617037001	YGWA-4I	EPA 9315	337919		
2617037002	YGWA-5I	EPA 9315	337919		
2617037003	YGWA-5D	EPA 9315	337919		
2617037004	YGWA-17S	EPA 9315	337919		
2617037005	YGWA-18S	EPA 9315	337919		
2617037006	YGWA-18I	EPA 9315	337919		
2617037007	YGWA-20S	EPA 9315	337919		
2617037008	YGWA-21I	EPA 9315	337919		
2617037009	YGWC-23S	EPA 9315	337921		
2617037011	YGWC-33S	EPA 9315	337919		
2617037012	YGWC-36	EPA 9315	337921		
2617037013	EB-1-4-3-19	EPA 9315	337919		
2617037014	EB-2-4-4-19	EPA 9315	337919		
2617037015	Dup-1	EPA 9315	337919		
2617037016	Dup-2	EPA 9315	337919		
2617037017	FB-1-4-3-19	EPA 9315	337919		
2617037018	FB-2-4-4-19	EPA 9315	337921		
2617037001	YGWA-4I	EPA 9320	337912		
2617037002	YGWA-5I	EPA 9320	337912		
2617037003	YGWA-5D	EPA 9320	337912		
2617037004	YGWA-17S	EPA 9320	337912		
2617037005	YGWA-18S	EPA 9320	337912		
2617037006	YGWA-18I	EPA 9320	337912		
2617037007	YGWA-20S	EPA 9320	337912		
2617037008	YGWA-21I	EPA 9320	337912		
2617037009	YGWC-23S	EPA 9320	337913		
2617037011	YGWC-33S	EPA 9320	337912		
2617037012	YGWC-36	EPA 9320	337913		
2617037013	EB-1-4-3-19	EPA 9320	337912		
2617037014	EB-2-4-4-19	EPA 9320	337912		
2617037015	Dup-1	EPA 9320	337912		
2617037016	Dup-2	EPA 9320	337912		
2617037017	FB-1-4-3-19	EPA 9320	337912		
2617037018	FB-2-4-4-19	EPA 9320	337913		
2617037001	YGWA-4I	Total Radium Calculation	339291		
2617037002	YGWA-5I	Total Radium Calculation	339291		
2617037003	YGWA-5D	Total Radium Calculation	339291		
2617037004	YGWA-17S	Total Radium Calculation	339291		
2617037005	YGWA-18S	Total Radium Calculation	339291		
2617037006	YGWA-18I	Total Radium Calculation	339291		
2617037007	YGWA-20S	Total Radium Calculation	339291		
2617037008	YGWA-21I	Total Radium Calculation	339291		

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Yates Ash Pond 3
Pace Project No.: 2617037

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2617037009	YGWC-23S	Total Radium Calculation	339292		
2617037011	YGWC-33S	Total Radium Calculation	339291		
2617037012	YGWC-36	Total Radium Calculation	339292		
2617037013	EB-1-4-3-19	Total Radium Calculation	339291		
2617037014	EB-2-4-4-19	Total Radium Calculation	339291		
2617037015	Dup-1	Total Radium Calculation	339291		
2617037016	Dup-2	Total Radium Calculation	339291		
2617037017	FB-1-4-3-19	Total Radium Calculation	339291		
2617037018	FB-2-4-4-19	Total Radium Calculation	339292		

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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

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: PROJECT NAME/STATE: Plant Yates - Ash Pond 3 PROJECT #:	
CONTAINER TYPE: P - PLASTIC A - AMBER GLASS G - CLEAR GLASS V - VOA VIAL S - STERILE O - OTHER		ANALYSIS REQUESTED P P P 3 7 3 Metals App. III (EPA 6020/7470) Boron, Calcium Cl, F, SO ₄ & TDS (EPA 300.0 & SM 2540C) Detected App IV (See List below) Det. App. IV 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	
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 APP III plus detected APP IV	
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	
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 APP III plus detected APP IV	

Collection DATE	Collection TIME	MATRIX CODE*	C O M P	G R A B	SAMPLE IDENTIFICATION
4-3-19	1350	GW	✓	✓	YGWA-4I
4-3-19	1540	GW	✓	✓	YGWA-5I
4-3-19	1355	GW	✓	✓	YGWA-5D
4-3-19	1510	GW	✓	✓	YGWA-17S
4-3-19	1015	GW	✓	✓	YGWA-18S
4-3-19	1135	GW	✓	✓	YGWA-18I
4-3-19	1230	GW	✓	✓	YGWA-20S
4-2-19	1556	GW	✓	✓	YGWA-21I
4-4-19	1305	GW	✓	✓	YGWC-23S
4-4-19	1220	GW	✓	✓	YGWC-24S
4-4-19	1135	GW	✓	✓	YGWC-33S
4-4-19	1435	GW	✓	✓	YGWC-36

RELINQUISHED BY:	DATE/TIME:	4-4-19	1722
RELINQUISHED BY:	DATE/TIME:		
SAMPLE SHIPPED VIA:	USPS	FED-EX	USPS
Courtesy Seat:	Broken	Not Present	
CARRIER	CLIENT	OTHER	FS
# of Coolers	Cooler ID:		

RECEIVED BY LAB:	DATE/TIME:	4/19/19	1722
PH Labtech:	Temperature:	Min:	Max:
Yes/No	Yes/No	Yes/No	Yes/No

WO#: 2617037

Extra Read here FOR LAB USE ONLY

APP III, plus Detected APP IV

Detected APP IV: Antimony, Arsenic, Barium, Beryllium, Cadmium, Cobalt, Fluoride, Lead, Lithium, Selenium, Thallium, Radium
 Golded Detections: Listed above or included with App III
 Yates Ash Pond 3 - Blank COCs.xlsx



CHAIN OF CUSTODY RECORD

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

PAGE: 2 OF 2

CLIENT NAME:		ANALYSIS REQUESTED		CONTAINER TYPE:		PRESERVATION	
Georgia Power		P		P		1 - HCl, ≤6°C	
CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER:		P		P		2 - H ₂ SO ₄ , ≤6°C	
241 Ralph McGill Blvd SE B10185		7		7		3 - HNO ₃	
Atlanta, GA 30308		3		3		4 - NaOH, ≤6°C	
404-506-7239		# of		# of		5 - NaOH/ZnAc, ≤6°C	
REPORT TO: Joju Abraham		CONTAINER TYPE:		CONTAINER TYPE:		6 - Na ₂ S ₂ O ₃ , ≤6°C	
REQUESTED COMPLETION DATE:		PRESERVATION:		PRESERVATION:		7 - ≤6°C not frozen	
PROJECT NAME/STATE: Plant Yates - Ash Pond 3		C O N T A I N E R S		C O N T A I N E R S			
PROJECT #:		L A B		L A B			
Collection DATE		M A T R I X C O D E * C O L L E C T I O N T I M E		M A T R I X C O D E * C O L L E C T I O N T I M E			
SAMPLE IDENTIFICATION		S A M P L E I D E N T I F I C A T I O N		S A M P L E I D E N T I F I C A T I O N			
4-3-19	1100	W	✓	EB-1-4-3-19	✓	Metals App. III (EPA 6020/7470)	Detected App IV (See List below)
4-4-19	1125	W	✓	EB-2-4-4-19	✓	CI, F, SO ₄ & TDS (EPA 300.0 & SM 2540C)	Detected App IV (See List below)
4-3-19	---	GW	✓	DUP-1	✓	Boron, Calcium	
4-4-19	---	GW	✓	DUP-2	✓		
4-3-19	1320	W	✓	FB-1-4-3-19	✓		
4-4-19	1325	W	✓	FB-2-4-4-19	✓		
<p>RELINQUISHED BY: <i>[Signature]</i> DATE/TIME: 4-4-19 / 1722</p> <p>RELINQUISHED BY: <i>[Signature]</i> DATE/TIME:</p> <p>SAMPLE SHIPPED VIA: UPS (Intact) / FedEx (Broken) / USPS (Not Present) / Courier (# of Coolers)</p> <p>DATE/TIME: 4-4-19 / 1722</p>							
SAMPLED BY AND TITLE: C. Parker, H. Acid		DATE/TIME: SEE ABOVE		DATE/TIME: SEE ABOVE		DATE/TIME: 4-4-19 / 1722	
RECEIVED BY: M. Abraham		DATE/TIME: 4-4-19 1722		DATE/TIME: 4-4-19 1722		DATE/TIME: 4-4-19 / 1722	
pH checked: (Yes) No NA (Yes) No NA		Tempature: (Yes) No NA (Yes) No NA		Tempature: (Yes) No NA (Yes) No NA		Tempature: (Yes) No NA (Yes) No NA	
LAB #:		LAB #:		LAB #:		LAB #:	
Entered into LIMS:		Entered into LIMS:		Entered into LIMS:		Entered into LIMS:	
Tracking #:		Tracking #:		Tracking #:		Tracking #:	

WO#: 2617037

PM: BM Due Date: 05/03/19
 CLIENT: GAPower-CCR

FOR LAB USE ONLY

APP III, plus Detected APP IV

Detected APP IV: Antimony, Arsenic, Barium, Beryllium, Cadmium, Cobalt, Fluoride, Lead, Lithium, Selenium, Thallium, Radium

Bolded Detections: Listed above or included with App III

Yates Ash Pond 3 - Blank COCs.xlsx

Sample Condition Upon Receipt



Client Name: GLA Power Project # _____

WO#: 2617037
 PM: BM Due Date: 05/03/19
 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 0.5 Biological Tissue is Frozen: Yes No
 Temp should be above freezing to 6°C

Date and Initials of person examining contents: 4/4/19 MR

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 type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	10. <u>see comment</u>
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: Evan Perry Date/Time: 4/5/2019 12:58

Comments/ Resolution: 1 Radium container bore YGWC-245 arrived to the lab with a very limited sample vol. secondary to lid not being closed tight.

Per consultant, cancel YGWC-245. It will be resampled.

Project Manager Review: BMCD Date: 4/5/2019

May 01, 2019

Joju Abraham
Georgia Power - Coal Combustion Residuals
2480 Maner Road
Atlanta, GA 30339

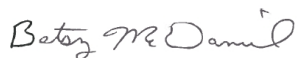
RE: Project: Plant Yates-Ash Pond 3
Pace Project No.: 2617220

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on April 10, 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-Ash Pond 3

Pace Project No.: 2617220

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

Florida: Cert E871149 SEKS WET

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-Ash Pond 3

Pace Project No.: 2617220

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2617220001	YGWC-24S	Water	04/09/19 12:05	04/10/19 08:40

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: Plant Yates-Ash Pond 3
Pace Project No.: 2617220

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2617220001	YGWC-24S	EPA 9315	JJY	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-Ash Pond 3

Pace Project No.: 2617220

Sample: YGWC-24S **Lab ID: 2617220001** Collected: 04/09/19 12:05 Received: 04/10/19 08:40 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.282 ± 0.130 (0.193) C:91% T:NA	pCi/L	04/22/19 21:19	13982-63-3	
Radium-228	EPA 9320	0.220 ± 0.301 (0.643) C:80% T:82%	pCi/L	04/25/19 14:16	15262-20-1	
Total Radium	Total Radium Calculation	0.502 ± 0.431 (0.836)	pCi/L	04/26/19 09:32	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Yates-Ash Pond 3

Pace Project No.: 2617220

QC Batch: 338631

Analysis Method: EPA 9315

QC Batch Method: EPA 9315

Analysis Description: 9315 Total Radium

Associated Lab Samples: 2617220001

METHOD BLANK: 1648339

Matrix: Water

Associated Lab Samples: 2617220001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.146 ± 0.0893 (0.139) C:90% T:NA	pCi/L	04/22/19 21:19	

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-Ash Pond 3

Pace Project No.: 2617220

QC Batch: 338745

Analysis Method: EPA 9320

QC Batch Method: EPA 9320

Analysis Description: 9320 Radium 228

Associated Lab Samples: 2617220001

METHOD BLANK: 1648702

Matrix: Water

Associated Lab Samples: 2617220001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.552 ± 0.362 (0.681) C:81% T:74%	pCi/L	04/25/19 11:04	

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-Ash Pond 3
Pace Project No.: 2617220

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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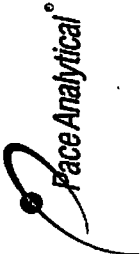
QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Yates-Ash Pond 3
Pace Project No.: 2617220

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2617220001	YGWC-24S	EPA 9315	338631		
2617220001	YGWC-24S	EPA 9320	338745		
2617220001	YGWC-24S	Total Radium Calculation	340066		

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 B10185 Atlanta, GA 30308 404-508-7239		ANALYSIS REQUESTED P P P 3 7 3 Del. App. IV Radium 226 & 228 (SW-848 9315/8320) Detected App IV (See List below) Cl, F, SO ₄ & TDS (EPA 300.0 & SM 2540C) Boron, Calcium Metals App. III (EPA 6020/7470)		CONTAINER TYPE P P P 3 7 3 Del. App. IV Radium 226 & 228 (SW-848 9315/8320) Detected App IV (See List below) Cl, F, SO ₄ & TDS (EPA 300.0 & SM 2540C) Boron, Calcium Metals App. III (EPA 6020/7470)		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/ZnAc, 56°C 6 - Na ₂ S ₂ O ₃ , 56°C 7 - 56°C not frozen	
REPORT TO: Joju Abraham REQUESTED COMPLETION DATE: PROJECT NAME/STATE: Plant Yates - Ash Pond 3 PROJECT #:		CONTAINERS 2 Y626-245		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 APP III plus detected APP IV		NO# : 2617220 	
Collection DATE 4-9-14 Collection TIME 1205 MATRIX CODE* 6w GRAB <input checked="" type="checkbox"/>		SAMPLE IDENTIFICATION Y626-245		RELINQUISHED BY: [Signature]		DATE/TIME: 4-9-14 1205		FOR LAB USE ONLY LAB #: 10840	
RECEIVED BY: [Signature]		RECEIVED BY LAB: [Signature]		RELINQUISHED BY: [Signature]		DATE/TIME: 4-10-14 10840		Entered into LIMS: Tracking #:	
RECEIVED BY: [Signature]		RECEIVED BY LAB: [Signature]		RELINQUISHED BY: [Signature]		DATE/TIME: 4-10-14 10840		Entered into LIMS: Tracking #:	
SHIPMENT VIA: UPS SHIPMENT VIA: USPS		SHIPMENT VIA: UPS SHIPMENT VIA: USPS		SHIPMENT VIA: UPS SHIPMENT VIA: USPS		SHIPMENT VIA: UPS SHIPMENT VIA: USPS		SHIPMENT VIA: UPS SHIPMENT VIA: USPS	

APP III, plus Detected APP IV

Detected APP IV: Antimony, Arsenic, Barium, Beryllium, Cadmium, Cobalt, Fluoride, Lead, Lithium, Selenium, Thallium, Radium
 Bolded Detections: Listed above or included with App III
 Yates Ash Pond 3 - Blank COCs



Sample Condition Upon Receipt

Client Name: GIA Power

Project # _____

WO#: **2617220**

PM: **BM** Due Date: **05/08/19**
CLIENT: **GAPower-CCR**

Courier: Fed Ex UPS USPS Client Commercial Pace Other
Tracking #: _____

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

Packing Material: Bubble Wrap Bubble Bags None Other

Thermometer Used 85 Type of Ice: Wet Blue None Samples on ice, cooling process has begun

Cooler Temperature 1.0 Biological Tissue is Frozen: Yes No
Temp should be above freezing to 6°C

Date and Initials of person examining contents: 4/10/19 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>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: _____

Product Name: Low-Flow System

Date: 2016-09-01 10:02:31

Project Information:

Operator Name WB
Company Name AECOM
Project Name Plant Yates
Site Name YGWC-49
Latitude 33° 27' 43.08"
Longitude -84° 53' -52.52"
Sonde SN 449474
Turbidity Make/Model LaMotte 2020we

Pump Information:

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

Pump placement from TOC 73.50 ft

Well Information:

Well ID YGWC-49
Well diameter 2 in
Well Total Depth 78.49 ft
Screen Length 10 ft
Depth to Water 31.33 ft

Pumping Information:

Final Pumping Rate 175 mL/min
Total System Volume 0.5470738 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 7.8 in
Total Volume Pumped 3.68 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	09:41:28	300.08	20.89	5.81	285.55	5.20	32.06	1.76	-9.06
Last 5	09:46:28	600.02	20.53	5.77	287.34	5.25	32.10	1.56	16.09
Last 5	09:51:28	900.02	20.48	5.75	284.57	4.49	32.10	1.49	18.35
Last 5	09:56:28	1200.02	20.52	5.78	284.32	3.20	32.11	1.38	12.89
Last 5									
Variance 0			-0.37	-0.04	1.79			-0.20	25.15
Variance 1			-0.04	-0.02	-2.77			-0.07	2.26
Variance 2			0.04	0.02	-0.25			-0.11	-5.47

Notes

Collect sample at 10:04.

Grab Samples

YGWC-49
10:04

Product Name: Low-Flow System

Date: 2016-11-15 10:36:02

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 Bladder Pump
Tubing Type Poly
Tubing Diameter .17 in
Tubing Length 85 ft

Pump placement from TOC 73 ft

Well Information:

Well ID YGWC-49
Well diameter 2 in
Well Total Depth 78.45 ft
Screen Length 10 ft
Depth to Water 32.89 ft

Pumping Information:

Final Pumping Rate 160 mL/min
Total System Volume 0.769391 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 6 in
Total Volume Pumped 8 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	10:13:02	1500.00	18.44	5.80	288.58	6.74	33.40	1.40	47.65
Last 5	10:18:02	1799.99	18.52	5.81	290.25	5.31	33.40	1.31	46.61
Last 5	10:23:02	2100.02	18.69	5.81	291.47	5.08	33.40	1.30	46.53
Last 5	10:28:02	2399.99	18.74	5.81	292.17	4.50	33.40	1.30	47.73
Last 5	10:33:02	2699.98	18.83	5.81	291.87	4.23	33.40	1.30	48.07
Variance 0			0.16	0.00	1.21			-0.01	-0.09
Variance 1			0.06	-0.00	0.70			0.00	1.20
Variance 2			0.09	-0.00	-0.29			-0.00	0.34

Notes

Collected at 10:35. Sunny60s

Grab Samples

Product Name: Low-Flow System

Date: 2017-02-27 13:08:37

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' 36.3"
Longitude -84° 53' -43.45"
Sonde SN 466058
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type Bladder
Tubing Type Poly
Tubing Diameter .375 in
Tubing Length 84 ft

Pump placement from TOC 74 ft

Well Information:

Well ID YGWC-49
Well diameter 2 in
Well Total Depth 79 ft
Screen Length 10 ft
Depth to Water 33.60 ft

Pumping Information:

Final Pumping Rate 130 mL/min
Total System Volume 2.309366 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 6 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	12:46:03	1200.00	16.76	5.84	259.61	0.83	34.00	2.00	30.66
Last 5	12:51:03	1500.00	16.78	5.78	260.86	1.31	34.10	1.86	45.95
Last 5	12:56:03	1800.00	16.74	5.73	262.47	1.07	34.10	1.66	55.83
Last 5	13:01:03	2100.00	16.74	5.70	263.29	0.93	34.10	1.63	62.32
Last 5	13:06:03	2399.98	16.68	5.68	263.71	0.96	34.10	1.62	67.85
Variance 0			-0.04	-0.05	1.61			-0.20	9.88
Variance 1			0.00	-0.02	0.82			-0.03	6.49
Variance 2			-0.06	-0.02	0.43			-0.01	5.53

Notes

Rain 50's. Sampled at 13:10.

Grab Samples

Product Name: Low-Flow System

Date: 2017-05-09 13:21:34

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' 36.16"
Longitude -84° 53' -43.68"
Sonde SN 466058
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type Bladder
Tubing Type Poly
Tubing Diameter .375 in
Tubing Length 79 ft

Pump placement from TOC 74 ft

Well Information:

Well ID YGWC-49
Well diameter 2 in
Well Total Depth 79 ft
Screen Length 10 ft
Depth to Water 33.54 ft

Pumping Information:

Final Pumping Rate 120 mL/min
Total System Volume 2.200773 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 6 in
Total Volume Pumped 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%	+/- 0		+/- 10%	+/- 0
Last 5	13:00:01	300.09	21.33	6.42	248.26	0.71	34.00	2.16	139.70
Last 5	13:05:01	600.01	20.66	6.24	264.32	0.34	34.00	1.88	138.09
Last 5	13:10:01	900.01	20.68	6.20	266.96	0.76	34.00	1.76	138.74
Last 5	13:15:01	1200.01	20.57	6.19	267.90	0.44	34.00	1.68	139.98
Last 5	13:20:01	1500.01	20.69	6.18	268.90	0.45	34.00	1.64	141.49
Variance 0			0.02	-0.04	2.64			-0.12	0.65
Variance 1			-0.11	-0.01	0.94			-0.08	1.24
Variance 2			0.12	-0.01	1.00			-0.03	1.51

Notes

Sunny, sample time- 1320

Grab Samples

Product Name: Low-Flow System

Date: 2017-07-13 12:56:15

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 .375 in
Tubing Length 80.0 ft

Pump placement from TOC 75.0 ft

Well Information:

Well ID YGWC-49
Well diameter 2 in
Well Total Depth 79.00 ft
Screen Length 10 ft
Depth to Water 33.20 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 2.222492 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 8 in
Total Volume Pumped 8 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	12:29:58	603.02	21.37	5.63	266.42	1.56	33.80	1.95	97.85
Last 5	12:34:58	903.02	20.87	5.59	265.80	1.33	33.90	1.72	95.56
Last 5	12:40:05	1210.01	20.64	5.58	266.16	1.24	33.90	1.60	94.20
Last 5	12:45:06	1511.02	20.57	5.60	265.79	0.94	33.90	1.61	91.05
Last 5	12:50:06	1811.02	20.66	5.60	266.16	0.78	33.90	1.60	87.30
Variance 0			-0.23	-0.01	0.35			-0.12	-1.36
Variance 1			-0.07	0.01	-0.37			0.01	-3.15
Variance 2			0.09	0.00	0.37			-0.01	-3.75

Notes

Collected at 12:55. Sunny 80s. EB-1 here.

Grab Samples

Product Name: Low-Flow System

Date: 2017-10-11 13:22:44

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 80.0 ft

Pump placement from TOC 74.0 ft

Well Information:

Well ID YGWC-49
Well diameter 2 in
Well Total Depth 79.0 ft
Screen Length 10 ft
Depth to Water 32.17 ft

Pumping Information:

Final Pumping Rate 160 mL/min
Total System Volume 2.222492 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 5 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			+/- 0	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	12:58:12	1501.00	22.67	5.60	266.68	5.89	32.70	1.82	115.25
Last 5	13:03:12	1800.99	22.58	5.62	265.11	6.71	32.70	1.77	118.17
Last 5	13:08:12	2100.99	21.99	5.55	265.21	5.99	32.70	1.78	123.85
Last 5	13:13:12	2400.99	22.12	5.56	266.99	4.98	32.70	1.78	123.58
Last 5	13:18:12	2700.99	22.55	5.61	266.86	4.30	32.70	1.76	124.43
Variance 0			-0.59	-0.07	0.11			0.01	5.68
Variance 1			0.13	0.01	1.77			0.00	-0.26
Variance 2			0.43	0.05	-0.13			-0.02	0.84

Notes

Collected at 13:25. Sunny 80s. DUP 1 here

Grab Samples

Product Name: Low-Flow System

Date: 2018-04-04 12:50:56

Project Information:

Operator Name J Berisford
Company Name Atlantic Coast Consulting
Project Name Plant Yates- Phase 2
Site Name Plant Yates
Latitude 33° 27' 36.26"
Longitude -84° -53' -43.39"
Sonde SN 466058
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED Bladder
Tubing Type poly
Tubing Diameter .375 in
Tubing Length 79 ft

Pump placement from TOC 74 ft

Well Information:

Well ID YGWC-49
Well diameter 2 in
Well Total Depth 79 ft
Screen Length 10 ft
Depth to Water 31.7 ft

Pumping Information:

Final Pumping Rate 160 mL/min
Total System Volume 2.200773 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 7.2 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			+/- 10	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 10
Last 5	12:25:04	300.09	17.85	6.38	265.32	1.57	32.20	1.36	84.52
Last 5	12:30:03	600.02	17.92	6.12	264.55	1.75	32.30	1.96	85.06
Last 5	12:40:04	1201.00	18.02	6.04	263.46	2.16	32.30	1.95	88.39
Last 5	12:45:04	1501.00	18.04	5.99	264.03	1.99	32.30	1.95	89.66
Last 5	12:50:04	1800.99	18.21	5.98	263.33	1.92	32.30	1.94	91.02
Variance 0			0.11	-0.08	-1.09			-0.01	3.33
Variance 1			0.01	-0.05	0.56			-0.00	1.27
Variance 2			0.17	-0.02	-0.70			-0.01	1.36

Notes

Sunny, sample time -1250, FB-6-4-4-18

Grab Samples

Product Name: Low-Flow System

Date: 2018-09-20 13:52:05

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 79 ft

Pump placement from TOC 74 ft

Well Information:

Well ID YGWC-49
Well diameter 2 in
Well Total Depth 79 ft
Screen Length 10 ft
Depth to Water 31.7 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 1.247566 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 6 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	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	13:30:20	600.04	22.22	5.85	249.60	2.77	32.10	1.81	47.10
Last 5	13:35:20	900.04	21.58	5.73	248.77	1.89	32.10	2.02	65.76
Last 5	13:40:20	1200.03	21.12	5.67	248.90	1.52	32.20	2.01	71.15
Last 5	13:45:20	1500.02	20.88	5.67	249.18	1.48	32.20	2.01	72.66
Last 5	13:50:20	1800.02	20.75	5.67	249.32	1.29	32.20	2.03	73.83
Variance 0			-0.47	-0.06	0.13			-0.01	5.39
Variance 1			-0.23	0.00	0.29			0.00	1.50
Variance 2			-0.13	0.00	0.13			0.01	1.17

Notes

Collected at 13:55. Sunny 90s. DUP -1 here

Grab Samples

Product Name: Low-Flow System

Date: 2019-03-28 10:31:00

Project Information:

Operator Name Chris Parker
Company Name Atlantic Coast Consulting
Project Name Plant Yates - Pond A
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 79 ft

Pump placement from TOC 74 ft

Well Information:

Well ID YGWC-49
Well diameter 2 in
Well Total Depth 79.0 ft
Screen Length 10 ft
Depth to Water 29.32 ft

Pumping Information:

Final Pumping Rate 160 mL/min
Total System Volume 1.247566 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 5 in
Total Volume Pumped 6.4 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	10:09:33	900.00	16.92	5.95	260.01	3.70	29.70	2.20	151.43
Last 5	10:14:33	1199.99	17.18	5.90	259.29	3.25	29.70	2.17	153.64
Last 5	10:19:33	1499.98	17.36	5.88	259.56	3.42	29.70	2.12	154.61
Last 5	10:24:33	1799.98	17.62	5.86	259.42	2.82	29.70	2.07	155.18
Last 5	10:29:33	2099.97	17.72	5.86	259.54	2.67	29.70	2.08	153.60
Variance 0			0.18	-0.02	0.27			-0.06	0.97
Variance 1			0.26	-0.02	-0.14			-0.04	0.57
Variance 2			0.10	-0.00	0.12			0.01	-1.58

Notes

Sampled at 10:30. Sunny 50s

Grab Samples



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: AZI0049

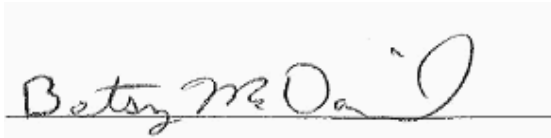
September 12, 2016

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.



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 12, 2016

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
YGWC-46	AZI0049-01	Ground Water	09/01/16 09:50	09/02/16 08:35
YGWC-49	AZI0049-02	Ground Water	09/01/16 10:04	09/02/16 08:35



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 12, 2016

Report No.: AZI0049

Project: CCR Event

Client ID: YGWC-46

Lab Number ID: AZI0049-01

Date/Time Sampled: 9/1/2016 9:50:00AM

Date/Time Received: 9/2/2016 8:35:00AM

Matrix: Ground Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	1240	25	10	mg/L	SM 2540 C		1	09/06/16 19:55	09/06/16 19:55	6090125	JPT
Inorganic Anions											
Chloride	37	0.25	0.01	mg/L	EPA 300.0	B-01	1	09/05/16 10:11	09/05/16 18:18	6090088	RLC
Fluoride	0.08	0.30	0.02	mg/L	EPA 300.0	J	1	09/05/16 10:11	09/05/16 18:18	6090088	RLC
Sulfate	770	20	1.0	mg/L	EPA 300.0		20	09/05/16 10:11	09/07/16 01:33	6090088	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	09/06/16 10:15	09/07/16 19:03	6090062	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	09/06/16 10:15	09/07/16 19:03	6090062	CSW
Barium	0.0414	0.0100	0.0004	mg/L	EPA 6020B		1	09/06/16 10:15	09/07/16 19:03	6090062	CSW
Beryllium	ND	0.0030	0.00008	mg/L	EPA 6020B		1	09/06/16 10:15	09/07/16 19:03	6090062	CSW
Boron	2.12	1.00	0.0642	mg/L	EPA 6020B		10	09/06/16 10:15	09/08/16 17:36	6090062	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	09/06/16 10:15	09/07/16 19:03	6090062	CSW
Calcium	96.8	5.00	0.311	mg/L	EPA 6020B		10	09/06/16 10:15	09/08/16 17:36	6090062	CSW
Chromium	ND	0.0100	0.0009	mg/L	EPA 6020B		1	09/06/16 10:15	09/07/16 19:03	6090062	CSW
Cobalt	0.0171	0.0100	0.0005	mg/L	EPA 6020B		1	09/06/16 10:15	09/07/16 19:03	6090062	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	09/06/16 10:15	09/07/16 19:03	6090062	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	09/06/16 10:15	09/07/16 19:03	6090062	CSW
Selenium	ND	0.0100	0.0010	mg/L	EPA 6020B		1	09/06/16 10:15	09/07/16 19:03	6090062	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	09/06/16 10:15	09/07/16 19:03	6090062	CSW
Lithium	0.0077	0.0500	0.0021	mg/L	EPA 6020B	J	1	09/06/16 10:15	09/07/16 19:03	6090062	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	09/06/16 11:30	09/06/16 16:12	6090078	MTC



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

Georgia Power
 2480 Maner Road
 Atlanta GA, 30339

Attention: Mr. Joju Abraham

September 12, 2016

Report No.: AZI0049

Project: CCR Event

Client ID: YGWC-49

Lab Number ID: AZI0049-02

Date/Time Sampled: 9/1/2016 10:04:00AM

Date/Time Received: 9/2/2016 8:35:00AM

Matrix: Ground Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	228	25	10	mg/L	SM 2540 C		1	09/06/16 19:55	09/06/16 19:55	6090125	JPT
Inorganic Anions											
Chloride	5.3	0.25	0.01	mg/L	EPA 300.0	B-01	1	09/05/16 10:11	09/05/16 18:38	6090088	RLC
Fluoride	0.09	0.30	0.02	mg/L	EPA 300.0	J	1	09/05/16 10:11	09/05/16 18:38	6090088	RLC
Sulfate	95	5.0	0.26	mg/L	EPA 300.0		5	09/05/16 10:11	09/07/16 01:54	6090088	RLC
Metals, Total											
Antimony	ND	0.0030	0.0008	mg/L	EPA 6020B		1	09/06/16 10:15	09/07/16 19:09	6090062	CSW
Arsenic	ND	0.0050	0.0016	mg/L	EPA 6020B		1	09/06/16 10:15	09/07/16 19:09	6090062	CSW
Barium	0.0770	0.0100	0.0004	mg/L	EPA 6020B		1	09/06/16 10:15	09/07/16 19:09	6090062	CSW
Beryllium	0.0001	0.0030	0.00008	mg/L	EPA 6020B	J	1	09/06/16 10:15	09/07/16 19:09	6090062	CSW
Boron	0.0113	0.100	0.0064	mg/L	EPA 6020B	J	1	09/06/16 10:15	09/07/16 19:09	6090062	CSW
Cadmium	ND	0.0010	0.00007	mg/L	EPA 6020B		1	09/06/16 10:15	09/07/16 19:09	6090062	CSW
Calcium	13.9	2.50	0.155	mg/L	EPA 6020B		5	09/06/16 10:15	09/08/16 17:42	6090062	CSW
Chromium	0.0013	0.0100	0.0009	mg/L	EPA 6020B	J	1	09/06/16 10:15	09/07/16 19:09	6090062	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	09/06/16 10:15	09/07/16 19:09	6090062	CSW
Lead	ND	0.0050	0.0001	mg/L	EPA 6020B		1	09/06/16 10:15	09/07/16 19:09	6090062	CSW
Molybdenum	ND	0.0100	0.0017	mg/L	EPA 6020B		1	09/06/16 10:15	09/07/16 19:09	6090062	CSW
Selenium	0.0086	0.0100	0.0010	mg/L	EPA 6020B	J	1	09/06/16 10:15	09/07/16 19:09	6090062	CSW
Thallium	ND	0.0010	0.0002	mg/L	EPA 6020B		1	09/06/16 10:15	09/07/16 19:09	6090062	CSW
Lithium	0.0034	0.0500	0.0021	mg/L	EPA 6020B	J	1	09/06/16 10:15	09/07/16 19:09	6090062	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	09/06/16 11:30	09/06/16 16:19	6090078	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 12, 2016

Report No.: AZI0049

General Chemistry - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6090125 - SM 2540 C											
Blank (6090125-BLK1)						Prepared & Analyzed: 09/06/16					
Total Dissolved Solids	ND	25	10	mg/L							
LCS (6090125-BS1)						Prepared & Analyzed: 09/06/16					
Total Dissolved Solids	402	25	10	mg/L	400.00		100	84-108			
Duplicate (6090125-DUP1)						Source: AZI0022-04 Prepared & Analyzed: 09/06/16					
Total Dissolved Solids	77	25	10	mg/L		190			85	10	QR-03
Duplicate (6090125-DUP2)						Source: AZI0022-09 Prepared & Analyzed: 09/06/16					
Total Dissolved Solids	429	25	10	mg/L		406			6	10	



PACE ANALYTICAL SERVICES, INC.

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

Georgia Power
 2480 Maner Road
 Atlanta GA, 30339

Attention: Mr. Joju Abraham

September 12, 2016

Report No.: AZI0049

Inorganic Anions - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6090088 - EPA 300.0											
Blank (6090088-BLK1)						Prepared & Analyzed: 09/05/16					
Chloride	0.05	0.25	0.01	mg/L							J
Fluoride	ND	0.30	0.02	mg/L							
Sulfate	ND	1.0	0.05	mg/L							
LCS (6090088-BS1)						Prepared & Analyzed: 09/05/16					
Chloride	10.1	0.25	0.01	mg/L	10.010		101	90-110			
Fluoride	10.0	0.30	0.02	mg/L	10.010		100	90-110			
Sulfate	10.2	1.0	0.05	mg/L	10.010		102	90-110			
Matrix Spike (6090088-MS1)						Source: AZI0050-01 Prepared & Analyzed: 09/05/16					
Chloride	466	0.25	0.01	mg/L	10.010	478	NR	90-110			QM-02
Fluoride	11.8	0.30	0.02	mg/L	10.010	0.34	114	90-110			QM-05
Sulfate	275	1.0	0.05	mg/L	10.010	291	NR	90-110			QM-02
Matrix Spike (6090088-MS2)						Source: AZI0059-03 Prepared: 09/05/16 Analyzed: 09/06/16					
Chloride	13.9	0.25	0.01	mg/L	10.010	3.33	105	90-110			
Fluoride	10.9	0.30	0.02	mg/L	10.010	0.20	107	90-110			
Sulfate	12.7	1.0	0.05	mg/L	10.010	2.66	101	90-110			
Matrix Spike Dup (6090088-MSD1)						Source: AZI0050-01 Prepared & Analyzed: 09/05/16					
Chloride	486	0.25	0.01	mg/L	10.010	478	84	90-110	4	15	QM-02
Fluoride	11.7	0.30	0.02	mg/L	10.010	0.34	114	90-110	0.4	15	QM-05
Sulfate	275	1.0	0.05	mg/L	10.010	291	NR	90-110	0.1	15	QM-02



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Attention: Mr. Joju Abraham

September 12, 2016

Report No.: AZI0049

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6090062 - EPA 3005A											
Blank (6090062-BLK1)						Prepared: 09/06/16 Analyzed: 09/07/16					
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							
LCS (6090062-BS1)						Prepared: 09/06/16 Analyzed: 09/07/16					
Antimony	0.111	0.0030	0.0008	mg/L	0.10000		111	80-120			
Arsenic	0.101	0.0050	0.0016	mg/L	0.10000		101	80-120			
Barium	0.100	0.0100	0.0004	mg/L	0.10000		100	80-120			
Beryllium	0.104	0.0030	0.00008	mg/L	0.10000		104	80-120			
Boron	1.04	0.100	0.0064	mg/L	1.0000		104	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	0.104	0.0100	0.0009	mg/L	0.10000		104	80-120			
Cobalt	0.101	0.0100	0.0005	mg/L	0.10000		101	80-120			
Copper	0.101	0.0050	0.0005	mg/L	0.10000		101	80-120			
Lead	0.100	0.0050	0.0001	mg/L	0.10000		100	80-120			
Molybdenum	0.105	0.0100	0.0017	mg/L	0.10000		105	80-120			
Nickel	0.102	0.0050	0.0006	mg/L	0.10000		102	80-120			
Selenium	0.107	0.0100	0.0010	mg/L	0.10000		107	80-120			
Silver	0.101	0.0050	0.0005	mg/L	0.10000		101	80-120			
Thallium	0.101	0.0010	0.0002	mg/L	0.10000		101	80-120			
Vanadium	0.103	0.0100	0.0071	mg/L	0.10000		103	80-120			
Zinc	0.105	0.0100	0.0021	mg/L	0.10000		105	80-120			
Lithium	0.106	0.0500	0.0021	mg/L	0.10000		106	80-120			



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 Atlanta GA, 30339

Attention: Mr. Joju Abraham

September 12, 2016

Report No.: AZI0049

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6090062 - EPA 3005A											
Matrix Spike (6090062-MS1)			Source: AZI0050-04			Prepared: 09/06/16 Analyzed: 09/07/16					
Antimony	0.106	0.0030	0.0008	mg/L	0.10000	ND	106	75-125			
Arsenic	0.111	0.0050	0.0016	mg/L	0.10000	0.0095	102	75-125			
Barium	0.157	0.0100	0.0004	mg/L	0.10000	0.0666	91	75-125			
Beryllium	0.0934	0.0030	0.00008	mg/L	0.10000	ND	93	75-125			
Boron	1.14	0.100	0.0064	mg/L	1.0000	0.349	79	75-125			
Cadmium	0.102	0.0010	0.00007	mg/L	0.10000	ND	102	75-125			
Calcium	9.88	0.500	0.0311	mg/L	1.0000	8.90	97	75-125			
Chromium	0.101	0.0100	0.0009	mg/L	0.10000	ND	101	75-125			
Cobalt	0.0950	0.0100	0.0005	mg/L	0.10000	ND	95	75-125			
Copper	0.0995	0.0050	0.0005	mg/L	0.10000	ND	99	75-125			
Lead	0.0961	0.0050	0.0001	mg/L	0.10000	ND	96	75-125			
Molybdenum	0.102	0.0100	0.0017	mg/L	0.10000	ND	102	75-125			
Nickel	0.104	0.0050	0.0006	mg/L	0.10000	0.0042	99	75-125			
Selenium	0.100	0.0100	0.0010	mg/L	0.10000	ND	100	75-125			
Silver	0.0927	0.0050	0.0005	mg/L	0.10000	ND	93	75-125			
Thallium	0.0952	0.0010	0.0002	mg/L	0.10000	ND	95	75-125			
Vanadium	0.104	0.0100	0.0071	mg/L	0.10000	ND	104	75-125			
Zinc	0.108	0.0100	0.0021	mg/L	0.10000	0.0026	105	75-125			
Lithium	0.102	0.0500	0.0021	mg/L	0.10000	0.0044	98	75-125			
Matrix Spike Dup (6090062-MSD1)											
Source: AZI0050-04			Prepared: 09/06/16 Analyzed: 09/07/16								
Antimony	0.107	0.0030	0.0008	mg/L	0.10000	ND	107	75-125	0.8	20	
Arsenic	0.111	0.0050	0.0016	mg/L	0.10000	0.0095	102	75-125	0.003	20	
Barium	0.143	0.0100	0.0004	mg/L	0.10000	0.0666	77	75-125	9	20	
Beryllium	0.0897	0.0030	0.00008	mg/L	0.10000	ND	90	75-125	4	20	
Boron	1.05	0.100	0.0064	mg/L	1.0000	0.349	70	75-125	8	20	QM-02
Cadmium	0.101	0.0010	0.00007	mg/L	0.10000	ND	101	75-125	1	20	
Calcium	7.88	0.500	0.0311	mg/L	1.0000	8.90	NR	75-125	22	20	QM-02, QR-03
Chromium	0.102	0.0100	0.0009	mg/L	0.10000	ND	102	75-125	0.6	20	
Cobalt	0.0984	0.0100	0.0005	mg/L	0.10000	ND	98	75-125	3	20	
Copper	0.0997	0.0050	0.0005	mg/L	0.10000	ND	100	75-125	0.3	20	
Lead	0.0959	0.0050	0.0001	mg/L	0.10000	ND	96	75-125	0.2	20	
Molybdenum	0.0991	0.0100	0.0017	mg/L	0.10000	ND	99	75-125	3	20	
Nickel	0.103	0.0050	0.0006	mg/L	0.10000	0.0042	99	75-125	0.6	20	
Selenium	0.104	0.0100	0.0010	mg/L	0.10000	ND	104	75-125	4	20	
Silver	0.0963	0.0050	0.0005	mg/L	0.10000	ND	96	75-125	4	20	
Thallium	0.0952	0.0010	0.0002	mg/L	0.10000	ND	95	75-125	0.06	20	
Vanadium	0.103	0.0100	0.0071	mg/L	0.10000	ND	103	75-125	0.6	20	
Zinc	0.106	0.0100	0.0021	mg/L	0.10000	0.0026	103	75-125	2	20	



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Georgia Power
 2480 Maner Road
 Atlanta GA, 30339

Attention: Mr. Joju Abraham

September 12, 2016

Report No.: AZI0049

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6090062 - EPA 3005A											
Matrix Spike Dup (6090062-MSD1)			Source: AZI0050-04			Prepared: 09/06/16 Analyzed: 09/07/16					
Lithium	0.0974	0.0500	0.0021	mg/L	0.10000	0.0044	93	75-125	5	20	
Post Spike (6090062-PS1)			Source: AZI0050-04			Prepared: 09/06/16 Analyzed: 09/07/16					
Antimony	99.5			ug/L	100.00	0.100	99	80-120			
Arsenic	112			ug/L	100.00	9.50	102	80-120			
Barium	159			ug/L	100.00	66.6	92	80-120			
Beryllium	91.8			ug/L	100.00	0.0195	92	80-120			
Boron	1120			ug/L	1000.0	349	77	80-120			QM-02
Cadmium	101			ug/L	100.00	-0.0066	101	80-120			
Calcium	9570			ug/L	1000.0	8900	67	80-120			QM-02
Chromium	104			ug/L	100.00	0.586	104	80-120			
Cobalt	100			ug/L	100.00	0.0381	100	80-120			
Copper	101			ug/L	100.00	0.224	101	80-120			
Lead	93.7			ug/L	100.00	0.0558	94	80-120			
Molybdenum	101			ug/L	100.00	0.0984	101	80-120			
Nickel	104			ug/L	100.00	4.21	100	80-120			
Selenium	104			ug/L	100.00	0.394	103	80-120			
Silver	94.0			ug/L	100.00	-0.000050	94	80-120			
Thallium	93.2			ug/L	100.00	0.0002	93	80-120			
Vanadium	107			ug/L	100.00	2.25	104	80-120			
Zinc	104			ug/L	100.00	2.61	102	80-120			
Lithium	97.5			ug/L	100.00	4.38	93	80-120			

Batch 6090078 - EPA 7470A

Blank (6090078-BLK1)			Prepared & Analyzed: 09/06/16								
Mercury	ND	0.00050	0.000041	mg/L							



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 Atlanta GA, 30339

Attention: Mr. Joju Abraham

September 12, 2016

Report No.: AZI0049

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 6090078 - EPA 7470A											
LCS (6090078-BS1)						Prepared & Analyzed: 09/06/16					
Mercury	0.00241	0.00050	0.000041	mg/L	2.5000E-3		96	80-120			
Matrix Spike (6090078-MS1)						Source: AZI0038-05 Prepared & Analyzed: 09/06/16					
Mercury	0.00241	0.00050	0.000041	mg/L	2.5000E-3	ND	96	75-125			
Matrix Spike Dup (6090078-MSD1)						Source: AZI0038-05 Prepared & Analyzed: 09/06/16					
Mercury	0.00234	0.00050	0.000041	mg/L	2.5000E-3	ND	93	75-125	3	20	
Post Spike (6090078-PS1)						Source: AZI0038-05 Prepared & Analyzed: 09/06/16					
Mercury	1.69			ug/L	1.6667	0.00587	101	80-120			



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Attention: Mr. Joju Abraham

September 12, 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: Joji Abraham JABRAHAM@southernco.com REQUESTED COMPLETION DATE: STANDARD PROJECT NAME/STATE: YATES AP CCR GW PROJECT #: Phase 2 CCR		CONTAINER TYPE: P PRESERVATION: 3 # of CONTAINERS: 4		ANALYSIS REQUESTED Metals App. III & IV EPA 60207/470 IC (Cl, F, SO4) EPA 300.0, TDS SM 2540C Radium 226 & 228 SW-046 9315/9320		CONTAINER TYPE: P PRESERVATION: 3 # of CONTAINERS: 4		ANALYSIS REQUESTED Metals App. III & IV EPA 60207/470 IC (Cl, F, SO4) EPA 300.0, TDS SM 2540C Radium 226 & 228 SW-046 9315/9320	
Collection DATE 9-1-16 Collection TIME 0950 MATRIX CODE* GW GRAB <input checked="" type="checkbox"/>	SAMPLE IDENTIFICATION YATES-46	LAB #: A210049 Entered into LIMS: Tracking #:	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/ZnAg, 56°C 6 - Na ₂ S ₂ O ₃ , 56°C 7 - 56°C not frozen	MATRIX CODES: 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	REMARKS/ADDITIONAL INFORMATION	RELINQUISHED BY: [Signature] DATE/TIME: 9-1-16/1130	RELINQUISHED BY: [Signature] DATE/TIME:	SAMPLE SHIPPED VIA: UPS Courier ID:	CLIENT: OTHER FS Other FS
RECEIVED BY: Michael Hamilton DATE/TIME: 9-1-16/1130	RECEIVED BY: [Signature] DATE/TIME: 9-1-16/0835 Temperature: 10°C Min. 10°C Max.	RECEIVED BY: [Signature] DATE/TIME: 9-1-16/0835 Temperature: 10°C Min. 10°C Max.	RECEIVED BY: [Signature] DATE/TIME: 9-1-16/0835 Temperature: 10°C Min. 10°C Max.	RECEIVED BY: [Signature] DATE/TIME: 9-1-16/0835 Temperature: 10°C Min. 10°C Max.	RECEIVED BY: [Signature] DATE/TIME: 9-1-16/0835 Temperature: 10°C Min. 10°C Max.	RECEIVED BY: [Signature] DATE/TIME: 9-1-16/0835 Temperature: 10°C Min. 10°C Max.	RECEIVED BY: [Signature] DATE/TIME: 9-1-16/0835 Temperature: 10°C Min. 10°C Max.	RECEIVED BY: [Signature] DATE/TIME: 9-1-16/0835 Temperature: 10°C Min. 10°C Max.	

Pace COC Plant Yates AP CCR GW

CHAIN OF CUSTODY RECORD

Pace Analytical Services, Inc.
 110 TECHNOLOGY PARKWAY, PEACHTREE CORNERS, GA 30082
 (770) 734-4200 : FAX (770) 734-4201 : www.asi-lab.com

CLIENT NAME: Southern Company Services		ANALYSIS REQUESTED		CONTAINER TYPE		PRESERVATION	
CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER: 241 Ralph McGill Blvd. SE, B10185 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, ≤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: JABRAHAM@southernco.com		P P P 3 7 3		L A B		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	
REQUESTED COMPLETION DATE: STANDARD		P P P 3 7 3		I D N U M B E R		REMARKS/ADDITIONAL INFORMATION	
PROJECT NAME/STATE: YATES AP CCR GW		P P P 3 7 3		CONTAINERS →			
PROJECT #: Phase 2 CCR		P P P 3 7 3		CONTAINERS →			
Collection DATE	MATRIX CODE*	GRA B	SAMPLE IDENTIFICATION	CONTAINER TYPE		PRESERVATION	
9/1/16 1004	GW	X	Y6WC-49	P P P 3 7 3		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	
SAMPLED BY AND TITLE: JABRAHAM		DATE/TIME: 9/1/16		RELINQUISHED BY: JABRAHAM		DATE/TIME: 9/1/16	
RECEIVED BY: JABRAHAM		DATE/TIME: 9/1/16		RELINQUISHED BY: JABRAHAM		DATE/TIME: 9/1/16	
RECEIVED BY LAB: JABRAHAM		DATE/TIME: 9/1/16 0835		SAMPLE SHIPPED VIA: UPS		COLLIER: CLIENT OTHER FS	
SPH checked: Yes No NA		Temperature: 1°C Min. 16°C Max.		Properly Sealed: Intact Broken Not Present		Cooler ID:	

Pace COC Plant Yates AP CCR GW



PACE ANALYTICAL SERVICES, INC.

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LOG-IN CHECKLIST

Printed: 9/12/2016 5:43:47PM

Attn: Mr. Joju Abraham

Client: Georgia Power

Project: CCR Event

Date Received: 09/02/16 08:35

Work Order: AZI0049

Logged In By: Mohammad M. Rahman

OBSERVATIONS

#Samples: 2

#Containers: 7

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, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

October 04, 2016

Maria Padilla
GA Power
2480 Maner Rd
Atlanta, GA 30339

RE: Project: Yates AP CCR GW
Pace Project No.: 30195135

Dear Maria Padilla:

Enclosed are the analytical results for sample(s) received by the laboratory on September 06, 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.: 30195135

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.: 30195135

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30195135001	YGWC-46	Water	09/01/16 09:50	09/06/16 08:50

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: Yates AP CCR GW
Pace Project No.: 30195135

Lab ID	Sample ID	Method	Analysts	Analytes Reported
30195135001	YGWC-46	EPA 9315	WRR	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Yates AP CCR GW
 Pace Project No.: 30195135

Sample: **YGWC-46** Lab ID: **30195135001** Collected: 09/01/16 09:50 Received: 09/06/16 08:50 Matrix: Water
 PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.467 ± 0.226 (0.277) C:87% T:NA	pCi/L	09/28/16 11:36	13982-63-3	
Radium-228	EPA 9320	1.81 ± 0.565 (0.708) C:80% T:83%	pCi/L	09/23/16 22:08	15262-20-1	
Total Radium	Total Radium Calculation	2.28 ± 0.791 (0.985)	pCi/L	10/04/16 15:39	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Yates AP CCR GW
 Pace Project No.: 30195135

QC Batch: 232981 Analysis Method: EPA 9315
 QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium
 Associated Lab Samples: 30195135001

METHOD BLANK: 1141806 Matrix: Water
 Associated Lab Samples: 30195135001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	-0.0211 ± 0.0919 (0.290) C:86% T:NA	pCi/L	09/28/16 11:34	

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.: 30195135

QC Batch: 232987 Analysis Method: EPA 9320
QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228
Associated Lab Samples: 30195135001

METHOD BLANK: 1141823 Matrix: Water
Associated Lab Samples: 30195135001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.450 ± 0.440 (0.907) C:80% T:77%	pCi/L	09/23/16 22:33	

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.: 30195135

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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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		ANALYSIS REQUESTED		CONTAINER TYPE		PRESERVATION	
CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER: 241 Ralph McGill Blvd. SE, B10185 Atlanta, GA 30308		CONTAINER TYPE: PRESERVATION: # of		P 3		1 - HCl, ≤6°C 2 - H ₂ SO ₄ , ≤6°C 3 - HNO ₃ 4 - NaOH, ≤6°C 5 - NaOH/HAAC, ≤6°C 6 - Na ₂ S ₂ O ₃ , ≤6°C 7 - ≤6°C not frozen	
REPORT TO: Joju Abraham JABRAHAM@southernco.com		CONTAINERS		P 3			
REQUESTED COMPLETION DATE: STANDARD		CONTAINERS		P 7			
PROJECT NAME/STATE: YATES AP CCR GW		CONTAINERS		P 3			
PROJECT #: Phase 2 CCR		CONTAINERS		P 7			
Collection DATE	Collection TIME	MATRIX CODE*	GRA B	IC (Cl, F, SO ₄) EPA 6020/7470 Metals App. III & IV	EPA 300.0, TDS SM 2540C SW-846 9315/9320 Radium 226 & 228		
9-1-16	0950	GW	X	1	2		
SAMPLED BY AND TITLE: Michael Hutton		DATE/TIME: 9-16/1030		RELINQUISHED BY: <i>[Signature]</i>		DATE/TIME: 9/16/0855	
RECEIVED BY: <i>[Signature]</i>		DATE/TIME: 9-16-16 6:53		RELINQUISHED BY:		DATE/TIME:	
RECEIVED BY LAB: Wolfsberg Proce / Pace		DATE/TIME: 9-16-16/0850		SAMPLE SHIPPED VIA: UPS		DATE/TIME:	
photographed: Yes	No	NA	Yes	No	NA	COURIER CLIENT OTHER FS	
Intact	Broken	Not Present	# of Coolers	Cooler ID:			
Temperature: Mtn. Max.		Intact		Broken		Not Present	
LAB #:		Entered into LIMS:		Tracking #:		FOR LAB USE ONLY	
WO#: 30195135		Barcode: 30195135					
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					

Sample Condition Upon Receipt Pittsburgh



Client Name: Pace, GA Project # 30195135

Courier: Fed Ex UPS USPS Client Commercial Pace Other _____

Tracking #: 6812 5098 8849

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: 097R 9-6-16

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.
Sample Labels match COC:	X			5.
-Includes date/time/ID/Analysis 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.
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>PHL2</u>
exceptions: VOA, coliform, TOC, O&G, Phenolics				Initial when completed: <u>097R</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>097R</u> Date: <u>9-6-16</u>

Client Notification/ Resolution:

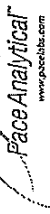
Person Contacted: _____ Date/Time: _____ Contacted By: _____

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: 9/26/2016
Worklist: 31362
Matrix: DW

Method Blank Assessment	
MB Sample ID	1141806
MB Concentration:	-0.021
MB Counting Uncertainty:	0.092
MB MDC:	0.290
MB Numerical Performance Indicator:	-0.45
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	
LCSD (Y or N)?	N
LCSS31362	LCSD31362
Count Date:	9/26/2016
Spike I.D.:	16-026
Spike Concentration (pCi/mL):	44.677
Volume Used (mL):	0.10
Aliquot Volume (L, g, F):	0.504
Target Conc. (pCi/L, g, F):	8.870
Uncertainty (Calculated):	0.417
Result (pCi/L, g, F):	7.482
LCSD Counting Uncertainty (pCi/L, g, F):	0.849
Numerical Performance Indicator:	-2.87
Percent Recovery:	84.36%
Status vs Numerical Indicator:	N/A
Status vs Recovery:	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 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):	
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:	

Duplicate Sample Assessment	
Sample I.D.:	30195128008
Duplicate Sample I.D.:	30195128008DUP
Sample Result (pCi/L, g, F):	0.625
Sample Duplicate Result (pCi/L, g, F):	0.301
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.389
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.228
Are sample and/or duplicate results below MDC?	See Below ##
Duplicate Numerical Performance Indicator:	1.384
Duplicate RPD:	54.21%
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

Quality Control Sample Performance Assessment



Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-228
Analyst: JILW
Date: 9/15/2016
Worklist: 31367
Matrix: DW

<p>Sample Matrix Spike Control Assessment</p> <p>Sample Collection Date: Sample I.D. Sample MS I.D. Sample MSD I.D. Spike I.D.:</p> <p>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):</p> <p>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: 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:</p>

<p>Method Blank Assessment</p> <p>MB Sample ID: 1141823 MB concentration: 0.450 M/B Counting Uncertainty: 0.432 MB MDC: 0.907 MB Numerical Performance Indicator: 2.04 MB Status vs Numerical Indicator: N/A MB Status vs. MDC: Pass</p>
--

<p>Laboratory Control Sample Assessment</p> <p>LCS# 31367 Count Date: 9/23/2016 Spike I.D.: 16-025 Spike Concentration (pCi/mL): 25.595 Volume Used (mL): 0.20 Aliquot Volume (L, g, F): 0.813 Target Conc. (pCi/L, g, F): 6.293 Uncertainty (Calculated): 0.453 Result (pCi/L, g, F): 7.559 LCS/LCSD Counting Uncertainty (pCi/L, g, F): 0.863 Numerical Performance Indicator: 2.55 Percent Recovery: 120.12% Status vs Numerical Indicator: N/A Status vs Recovery: Pass</p>

<p>Matrix Spike/Matrix Spike Duplicate Sample Assessment</p> <p>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:</p>

<p>Duplicate Sample Assessment</p> <p>Sample I.D.: 30195128008 Duplicate Sample I.D.: 30195128008DUP Sample Result (pCi/L, g, F): 1.816 Sample Result Counting Uncertainty (pCi/L, g, F): 0.475 Sample Duplicate Result (pCi/L, g, F): 1.232 Sample Duplicate Counting Uncertainty (pCi/L, g, F): 0.428 Are sample and/or duplicate results below MDC? See Below ## Duplicate Numerical Performance Indicator: 1.791 Duplicate RPD: 38.93% Duplicate Status vs Numerical Indicator: N/A Duplicate Status vs RPD: Fail***</p>
--

Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
30195128008
30195128008DUP

Handwritten signature

Comments:

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



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

October 04, 2016

Maria Padilla
GA Power
2480 Maner Rd
Atlanta, GA 30339

RE: Project: Yates AP CCR GW
Pace Project No.: 30195136

Dear Maria Padilla:

Enclosed are the analytical results for sample(s) received by the laboratory on September 06, 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.: 30195136

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.: 30195136

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30195136001	YGWC-49	Water	09/01/16 10:04	09/06/16 08:50

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: Yates AP CCR GW
Pace Project No.: 30195136

Lab ID	Sample ID	Method	Analysts	Analytes Reported
30195136001	YGWC-49	EPA 9315	WRR	1
		EPA 9320	JLW	1
		Total Radium Calculation	CMC	1

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Yates AP CCR GW
 Pace Project No.: 30195136

Sample: **YGWC-49** Lab ID: **30195136001** Collected: 09/01/16 10:04 Received: 09/06/16 08:50 Matrix: Water
 PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.122 ± 0.157 (0.331) C:85% T:NA	pCi/L	09/28/16 11:36	13982-63-3	
Radium-228	EPA 9320	1.08 ± 0.481 (0.784) C:79% T:76%	pCi/L	09/23/16 22:08	15262-20-1	
Total Radium	Total Radium Calculation	1.20 ± 0.638 (1.12)	pCi/L	10/04/16 15:39	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Yates AP CCR GW
 Pace Project No.: 30195136

QC Batch: 232981 Analysis Method: EPA 9315
 QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium
 Associated Lab Samples: 30195136001

METHOD BLANK: 1141806 Matrix: Water
 Associated Lab Samples: 30195136001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	-0.0211 ± 0.0919 (0.290) C:86% T:NA	pCi/L	09/28/16 11:34	

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.: 30195136

QC Batch: 232987	Analysis Method: EPA 9320
QC Batch Method: EPA 9320	Analysis Description: 9320 Radium 228
Associated Lab Samples: 30195136001	

METHOD BLANK: 1141823 Matrix: Water
 Associated Lab Samples: 30195136001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.450 ± 0.440 (0.907) C:80% T:77%	pCi/L	09/23/16 22:33	

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.: 30195136

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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Sample Condition Upon Receipt Pittsburgh



Client Name: Face, GA

Project # 30195136

Courier: Fed Ex UPS USPS Client Commercial Pace Other _____

Tracking #: 6812 5098 8849

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: AGR 9-6-16

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 Signature</u>
Sample Labels match COC: -Includes date/time/ID/Analysis Matrix: <u>WT</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	X		10.
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>PHL2</u>
exceptions: VOA, coliform, TOC, O&G, Phenolics				Initial when completed: <u>AGR</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>AGR</u> Date: <u>9-6-16</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: 9/26/2016
Worklist: 31362
Matrix: DW



Method Blank Assessment

MB Sample ID: 1141806
 MB concentration: -0.021
 MB Counting Uncertainty: 0.092
 MB MDC: 0.290
 MB Numerical Performance Indicator: -0.45
 MB Status vs Numerical Indicator: N/A
 MB Status vs. MDC: Pass

Laboratory Control Sample Assessment

LCS31362 N
LCS031362

Count Date: 9/28/2016
 Spike I.D.: 16-026
 Spike Concentration (pCi/mL): 44.677
 Volume Used (mL): 0.10
 Aliquot Volume (L, g, F): 0.504
 Target Conc. (pCi/L, g, F): 8.870
 Uncertainty (Calculated): 0.417
 Result (pCi/L, g, F): 7.482
 LCS/LCSD Counting Uncertainty (pCi/L, g, F): 0.849
 Numerical Performance Indicator: -2.87
 Percent Recovery: 84.36%
 Status vs Numerical Indicator: N/A
 Status vs Recovery: 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:
 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:

Duplicate Sample Assessment

Sample I.D.: 30195128008
 Duplicate Sample I.D.: 30195128008DUP
 Duplicate Result (pCi/L, g, F): 0.625
 Sample Result Counting Uncertainty (pCi/L, g, F): 0.301
 Sample Duplicate Result (pCi/L, g, F): 0.359
 Sample Duplicate Result Counting Uncertainty (pCi/L, g, F): 0.228
 Are sample and/or duplicate results below MDC? See Below ##
 Duplicate Numerical Performance Indicator: 1.384
 Duplicate RPD: 54.21%
 Duplicate Status vs Numerical Indicator: N/A
 Duplicate Status vs RPD: Fail**

Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
 30195128008
 30195128008DUP

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:

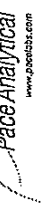
Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

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

Handwritten signature

Quality Control Sample Performance Assessment



Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-228
Analyst: JLW
Date: 9/15/2016
Worklist: 31367
Matrix: DW

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:

Method Blank Assessment

MB Sample ID: 1141823
MB concentration: 0.450
MB Counting Uncertainty: 0.432
MB MDC: 0.907
MB Numerical Performance Indicator: 2.04
MB Status vs Numerical Indicator: N/A
MB Status vs. MDC: Pass

Laboratory Control Sample Assessment

LCSID (Y or N): N
LCSID: LCS031367

Count Date: 9/23/2016
Spike I.D.: 16-025
Spike Concentration (pCi/mL): 25.595
Volume Used (mL): 0.20
Aliquot Volume (L, g, F): 0.813
Target Conc. (pCi/L, g, F): 6.293
Uncertainty (Calculated): 0.453
Result (pCi/L, g, F): 7.559
LCS/LCSD Counting Uncertainty (pCi/L, g, F): 0.863
Numerical Performance Indicator: 2.55
Percent Recovery: 120.12%
Status vs Numerical Indicator: N/A
Status vs Recovery: Pass

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:

Duplicate Sample Assessment

Sample I.D.: 30195128008
Duplicate Sample I.D.: 30195128008DUP
Sample Result (pCi/L, g, F): 1.816
Sample Result Counting Uncertainty (pCi/L, g, F): 0.475
Sample Duplicate Result (pCi/L, g, F): 1.232
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F): 0.428
Are sample and/or duplicate results below MDC? See Below ##
Duplicate Numerical Performance Indicator: 1.791
Duplicate RPD: 38.33%
Duplicate Status vs Numerical Indicator: N/A
Duplicate Status vs RPD: Fail***

Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
30195128008
30195128008DUP

Handwritten signature and notes: "LCS/LCSD" and "Fail***".

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

Comments:

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



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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 2480 Maner Road
 Atlanta GA, 30339

December 05, 2016

Attention: Mr. Joju Abraham

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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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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 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											
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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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
 Health McCorkle

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

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

CONTAINER TYPE	ANALYSIS REQUESTED			CONTAINER TYPE	PRESERVATION
	P	P	P		
3	7	3		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

L A B I D N U M B E R	CONTAINER TYPE	PRESERVATION	# of	ANALYSIS REQUESTED			DATE/TIME	DATE/TIME
				P	P	P		
1				1	1	1		
2				1	1	1		
3				1	1	1		
4				1	1	2		

RELINQUISHED BY: *Ch-lak* DATE/TIME: 11-17-16 0950

RELINQUISHED BY: DATE/TIME:

SAMPLE SHIPPED VIA: UPS FED-EX USFS COURIER CLIENT OTHER FS

Temperature: 11/17/16 0950

DATE/TIME: 11-16-16 1600

DATE/TIME:

RECEIVED BY: *Ch-lak* ACC

RECEIVED BY: *Madigan* DATE/TIME: 11/17/16 0950

PH checked: Yes No NA

Temp checked: Yes No NA

Matrix checked: Yes No NA

Other checked: Yes No NA

LAB #: A2K0570

Entered into LIMS: *MR*

Tracking #: _____

FOR LAB USE ONLY

Plant Yates COC Phase II Facilities.xlsx



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
Sample: YGWC-46 Lab ID: 30203117001 Collected: 11/16/16 10:05 Received: 11/18/16 11:40 Matrix: Water PWS: Site ID: Sample Type:							
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
Sample: YGWC-42 Lab ID: 30203117002 Collected: 11/16/16 13:05 Received: 11/18/16 11:40 Matrix: Water PWS: Site ID: Sample Type:							
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
Sample: EB-1-11-16-16 Lab ID: 30203117003 Collected: 11/16/16 14:10 Received: 11/18/16 11:40 Matrix: Water PWS: Site ID: Sample Type:							
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
Sample: YGWC-43 Lab ID: 30203117004 Collected: 11/16/16 15:05 Received: 11/18/16 11:40 Matrix: Water PWS: Site ID: Sample Type:							
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: 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	LAB USE ONLY
1	YGWC-46	G	11/16/2016 10:05	AZK0570-01	GW	3 ONH	001
2	YGWC-42	G	11/16/2016 13:05	AZK0570-02	GW	1	002
3	EB-1-11-16-16	G	11/16/2016 14:10	AZK0570-03	W	1	003
4	YGWC-43	G	11/16/2016 15:05	AZK0570-04	GW	2	004
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

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 Padilla
 Heath McCorkle
 PO #: laburch@southernco.com

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

CONTAINER TYPE	PRESERVATION	ANALYSIS REQUESTED			CONTAINER NUMBER	REMARKS/ADDITIONAL INFORMATION
		P	P	P		
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	
3					2	
3					3	
4					4	

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, 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:
 Chris Parker
 RECEIVED BY:
 M. Dorman

DATE/TIME: 11-16-16 1600
 DATE/TIME: 11-17-16 0950

TEMPERATURE: 1°C
 MIN: 1°C
 MAX: 1°C

PH Checked: []
 Yes No NA

RELINQUISHED BY: [Signature]
 RELINQUISHED BY: [Signature]

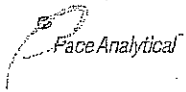
DATE/TIME: 11-17-16 0950
 DATE/TIME:

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: JKK 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 vials. ~ half the 1/2 gallon full</u>
Correct Containers Used: -Pace Containers Used:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input 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>JKK</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>JKK</u> Date: <u>11-19-16</u>

Client Notification/ Resolution:
 Person Contacted: B. Madhavan 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.

Handwritten signature and date: 12/22/16

***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:	

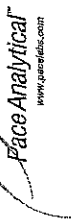
Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.:	
Sample MS I.D.:	
Sample MSD I.D.:	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Sample Matrix Spike Duplicate Counting Uncertainty (pCi/L, g, F):	
Duplicate 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

Count Date:	LCS (Y or N)?	Numerical Indicator
12/21/2016	LCS32865	LCS32865
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
Duplicate Result (pCi/L, g, F):	0.423
Sample Duplicate Counting Uncertainty (pCi/L, g, F):	0.205
Duplicate Duplicate 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**

Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
30203120001
30203120001DUP

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:	
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 Status vs Numerical Indicator:	
Duplicate Numerical Performance Indicator:	
MS/MSD Duplicate Status vs Numerical Indicator:	
MS/MSD Duplicate Status vs RPD:	

(Based on the Percent Recoveries) MS/MSD Duplicate RPD:

Numerical Indicator is acceptable

12/22/16



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: AAC0053

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:


Project Manager

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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

March 08, 2017

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
YGWC-49	AAC0053-01	Ground Water	02/27/17 13:10	03/01/17 16:50
FB-1-2-28-17	AAC0053-02	Water	02/28/17 10:00	03/01/17 16:50
YGWC-44	AAC0053-03	Ground Water	02/28/17 10:30	03/01/17 16:50
YGWC-36	AAC0053-04	Ground Water	02/28/17 14:00	03/01/17 16:50



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.: AAC0053

Project: CCR Event

Client ID: YGWC-49

Lab Number ID: AAC0053-01

Date/Time Sampled: 2/27/2017 1:10:00PM

Date/Time Received: 3/1/2017 4:50:00PM

Matrix: Ground Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	382	25	10	mg/L	SM 2540 C		1	03/03/17 10:25	03/03/17 10:25	7030106	JPT
Inorganic Anions											
Chloride	4.6	0.25	0.01	mg/L	EPA 300.0		1	03/05/17 16:25	03/06/17 14:25	7030132	RLC
Fluoride	0.06	0.30	0.004	mg/L	EPA 300.0	J	1	03/05/17 16:25	03/06/17 14:25	7030132	RLC
Sulfate	84	10	0.92	mg/L	EPA 300.0		10	03/05/17 16:25	03/07/17 01:02	7030132	RLC
Metals, Total											
Antimony	0.0011	0.0030	0.0003	mg/L	EPA 6020B	J	1	03/02/17 12:35	03/06/17 20:46	7030080	CSW
Arsenic	ND	0.0050	0.0004	mg/L	EPA 6020B		1	03/02/17 12:35	03/06/17 20:46	7030080	CSW
Barium	0.0888	0.0100	0.0003	mg/L	EPA 6020B		1	03/02/17 12:35	03/06/17 20:46	7030080	CSW
Beryllium	0.0001	0.0030	0.00007	mg/L	EPA 6020B	J	1	03/02/17 12:35	03/06/17 20:46	7030080	CSW
Boron	ND	0.0400	0.0060	mg/L	EPA 6020B		1	03/02/17 12:35	03/06/17 20:46	7030080	CSW
Cadmium	0.00007	0.0010	0.000060	mg/L	EPA 6020B	J	1	03/02/17 12:35	03/06/17 20:46	7030080	CSW
Calcium	12.5	2.50	0.0522	mg/L	EPA 6020B		5	03/02/17 12:35	03/06/17 21:27	7030080	CSW
Chromium	0.0016	0.0100	0.0003	mg/L	EPA 6020B	J	1	03/02/17 12:35	03/06/17 20:46	7030080	CSW
Cobalt	0.0008	0.0100	0.0005	mg/L	EPA 6020B	J	1	03/02/17 12:35	03/06/17 20:46	7030080	CSW
Lead	ND	0.0050	0.00005	mg/L	EPA 6020B		1	03/02/17 12:35	03/06/17 20:46	7030080	CSW
Molybdenum	0.0007	0.0100	0.0002	mg/L	EPA 6020B	J	1	03/02/17 12:35	03/06/17 20:46	7030080	CSW
Selenium	0.0098	0.0100	0.0014	mg/L	EPA 6020B	J	1	03/02/17 12:35	03/06/17 20:46	7030080	CSW
Thallium	0.00009	0.0010	0.00003	mg/L	EPA 6020B	J	1	03/02/17 12:35	03/06/17 20:46	7030080	CSW
Lithium	0.0036	0.0500	0.0011	mg/L	EPA 6020B	J	1	03/02/17 12:35	03/06/17 20:46	7030080	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	03/02/17 11:10	03/02/17 14:40	7030045	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

March 08, 2017

Report No.: AAC0053

Project: CCR Event

Client ID: FB-1-2-28-17

Lab Number ID: AAC0053-02

Date/Time Sampled: 2/28/2017 10:00:00AM

Date/Time Received: 3/1/2017 4:50:00PM

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	03/03/17 15:10	03/03/17 15:10	7030156	JPT
Inorganic Anions											
Chloride	ND	0.25	0.01	mg/L	EPA 300.0		1	03/05/17 16:25	03/06/17 14:46	7030132	RLC
Fluoride	0.04	0.30	0.004	mg/L	EPA 300.0	J	1	03/05/17 16:25	03/06/17 14:46	7030132	RLC
Sulfate	ND	1.0	0.09	mg/L	EPA 300.0		1	03/05/17 16:25	03/06/17 14:46	7030132	RLC
Metals, Total											
Antimony	0.0004	0.0030	0.0003	mg/L	EPA 6020B	J	1	03/02/17 12:35	03/06/17 20:52	7030080	CSW
Arsenic	ND	0.0050	0.0004	mg/L	EPA 6020B		1	03/02/17 12:35	03/06/17 20:52	7030080	CSW
Barium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	03/02/17 12:35	03/06/17 20:52	7030080	CSW
Beryllium	ND	0.0030	0.00007	mg/L	EPA 6020B		1	03/02/17 12:35	03/06/17 20:52	7030080	CSW
Boron	ND	0.0400	0.0060	mg/L	EPA 6020B		1	03/02/17 12:35	03/06/17 20:52	7030080	CSW
Cadmium	ND	0.0010	0.000060	mg/L	EPA 6020B		1	03/02/17 12:35	03/06/17 20:52	7030080	CSW
Calcium	0.0200	0.500	0.0104	mg/L	EPA 6020B	J	1	03/02/17 12:35	03/06/17 20:52	7030080	CSW
Chromium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	03/02/17 12:35	03/06/17 20:52	7030080	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	03/02/17 12:35	03/06/17 20:52	7030080	CSW
Lead	ND	0.0050	0.00005	mg/L	EPA 6020B		1	03/02/17 12:35	03/06/17 20:52	7030080	CSW
Molybdenum	ND	0.0100	0.0002	mg/L	EPA 6020B		1	03/02/17 12:35	03/06/17 20:52	7030080	CSW
Selenium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	03/02/17 12:35	03/06/17 20:52	7030080	CSW
Thallium	ND	0.0010	0.00003	mg/L	EPA 6020B		1	03/02/17 12:35	03/06/17 20:52	7030080	CSW
Lithium	ND	0.0500	0.0011	mg/L	EPA 6020B		1	03/02/17 12:35	03/06/17 20:52	7030080	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	03/02/17 11:10	03/02/17 14:47	7030045	MTC



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 Atlanta GA, 30339

Attention: Mr. Joju Abraham

March 08, 2017

Report No.: AAC0053

Project: CCR Event

Client ID: YGWC-44

Lab Number ID: AAC0053-03

Date/Time Sampled: 2/28/2017 10:30:00AM

Date/Time Received: 3/1/2017 4:50:00PM

Matrix: Ground Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	483	25	10	mg/L	SM 2540 C		1	03/03/17 10:25	03/03/17 10:25	7030106	JPT
Inorganic Anions											
Chloride	12	0.25	0.01	mg/L	EPA 300.0		1	03/05/17 16:25	03/06/17 15:07	7030132	RLC
Fluoride	0.07	0.30	0.004	mg/L	EPA 300.0	J	1	03/05/17 16:25	03/06/17 15:07	7030132	RLC
Sulfate	130	10	0.92	mg/L	EPA 300.0		10	03/05/17 16:25	03/07/17 01:23	7030132	RLC
Metals, Total											
Antimony	ND	0.0030	0.0003	mg/L	EPA 6020B		1	03/02/17 12:35	03/06/17 20:58	7030080	CSW
Arsenic	0.0005	0.0050	0.0004	mg/L	EPA 6020B	J	1	03/02/17 12:35	03/06/17 20:58	7030080	CSW
Barium	0.121	0.0100	0.0003	mg/L	EPA 6020B		1	03/02/17 12:35	03/06/17 20:58	7030080	CSW
Beryllium	ND	0.0030	0.00007	mg/L	EPA 6020B		1	03/02/17 12:35	03/06/17 20:58	7030080	CSW
Boron	0.623	0.0400	0.0060	mg/L	EPA 6020B		1	03/02/17 12:35	03/06/17 20:58	7030080	CSW
Cadmium	ND	0.0010	0.000060	mg/L	EPA 6020B		1	03/02/17 12:35	03/06/17 20:58	7030080	CSW
Calcium	26.4	5.00	0.104	mg/L	EPA 6020B		10	03/02/17 12:35	03/06/17 21:04	7030080	CSW
Chromium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	03/02/17 12:35	03/06/17 20:58	7030080	CSW
Cobalt	0.0017	0.0100	0.0005	mg/L	EPA 6020B	J	1	03/02/17 12:35	03/06/17 20:58	7030080	CSW
Lead	ND	0.0050	0.00005	mg/L	EPA 6020B		1	03/02/17 12:35	03/06/17 20:58	7030080	CSW
Molybdenum	0.0005	0.0100	0.0002	mg/L	EPA 6020B	J	1	03/02/17 12:35	03/06/17 20:58	7030080	CSW
Selenium	ND	0.0100	0.0014	mg/L	EPA 6020B		1	03/02/17 12:35	03/06/17 20:58	7030080	CSW
Thallium	ND	0.0010	0.00003	mg/L	EPA 6020B		1	03/02/17 12:35	03/06/17 20:58	7030080	CSW
Lithium	0.0124	0.0500	0.0011	mg/L	EPA 6020B	J	1	03/02/17 12:35	03/06/17 20:58	7030080	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	03/02/17 11:10	03/02/17 14:49	7030045	MTC



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Attention: Mr. Joju Abraham

March 08, 2017

Report No.: AAC0053

Project: CCR Event

Client ID: YGWC-36

Lab Number ID: AAC0053-04

Date/Time Sampled: 2/28/2017 2:00:00PM

Date/Time Received: 3/1/2017 4:50:00PM

Matrix: Ground Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	306	25	10	mg/L	SM 2540 C		1	03/03/17 15:10	03/03/17 15:10	7030156	JPT
Inorganic Anions											
Chloride	5.4	0.25	0.01	mg/L	EPA 300.0		1	03/05/17 16:25	03/06/17 15:29	7030132	RLC
Fluoride	0.09	0.30	0.004	mg/L	EPA 300.0	J	1	03/05/17 16:25	03/06/17 15:29	7030132	RLC
Sulfate	110	10	0.92	mg/L	EPA 300.0		10	03/05/17 16:25	03/07/17 01:44	7030132	RLC
Metals, Total											
Antimony	0.0004	0.0030	0.0003	mg/L	EPA 6020B	J	1	03/02/17 12:35	03/06/17 21:09	7030080	CSW
Arsenic	0.0006	0.0050	0.0004	mg/L	EPA 6020B	J	1	03/02/17 12:35	03/06/17 21:09	7030080	CSW
Barium	0.0230	0.0100	0.0003	mg/L	EPA 6020B		1	03/02/17 12:35	03/06/17 21:09	7030080	CSW
Beryllium	0.0001	0.0030	0.00007	mg/L	EPA 6020B	J	1	03/02/17 12:35	03/06/17 21:09	7030080	CSW
Boron	0.215	0.0400	0.0060	mg/L	EPA 6020B		1	03/02/17 12:35	03/06/17 21:09	7030080	CSW
Cadmium	0.0001	0.0010	0.000060	mg/L	EPA 6020B	J	1	03/02/17 12:35	03/06/17 21:09	7030080	CSW
Calcium	8.37	0.500	0.0104	mg/L	EPA 6020B		1	03/02/17 12:35	03/06/17 21:09	7030080	CSW
Chromium	ND	0.0100	0.0003	mg/L	EPA 6020B		1	03/02/17 12:35	03/06/17 21:09	7030080	CSW
Cobalt	ND	0.0100	0.0005	mg/L	EPA 6020B		1	03/02/17 12:35	03/06/17 21:09	7030080	CSW
Lead	0.0003	0.0050	0.00005	mg/L	EPA 6020B	J	1	03/02/17 12:35	03/06/17 21:09	7030080	CSW
Molybdenum	0.0038	0.0100	0.0002	mg/L	EPA 6020B	J	1	03/02/17 12:35	03/06/17 21:09	7030080	CSW
Selenium	0.0017	0.0100	0.0014	mg/L	EPA 6020B	J	1	03/02/17 12:35	03/06/17 21:09	7030080	CSW
Thallium	ND	0.0010	0.00003	mg/L	EPA 6020B		1	03/02/17 12:35	03/06/17 21:09	7030080	CSW
Lithium	0.0038	0.0500	0.0011	mg/L	EPA 6020B	J	1	03/02/17 12:35	03/06/17 21:09	7030080	CSW
Mercury	ND	0.00050	0.000041	mg/L	EPA 7470A		1	03/02/17 11:10	03/02/17 14:52	7030045	MTC



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March 08, 2017

Report No.: AAC0053

General Chemistry - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7030106 - SM 2540 C											
Blank (7030106-BLK1)						Prepared & Analyzed: 03/03/17					
Total Dissolved Solids	ND	25	10	mg/L							
LCS (7030106-BS1)						Prepared & Analyzed: 03/03/17					
Total Dissolved Solids	356	25	10	mg/L	400.00		89	84-108			
Duplicate (7030106-DUP1)						Source: AAC0053-04 Prepared & Analyzed: 03/03/17					
Total Dissolved Solids	526	25	10	mg/L		441			18	10	QR-03
Batch 7030156 - SM 2540 C											
Blank (7030156-BLK1)						Prepared & Analyzed: 03/06/17					
Total Dissolved Solids	ND	25	10	mg/L							
LCS (7030156-BS1)						Prepared & Analyzed: 03/06/17					
Total Dissolved Solids	426	25	10	mg/L	400.00		106	84-108			
Duplicate (7030156-DUP1)						Source: AAC0053-02RE1 Prepared & Analyzed: 03/06/17					
Total Dissolved Solids	ND	25	10	mg/L		ND				10	
Duplicate (7030156-DUP2)						Source: AAC0053-04RE1 Prepared & Analyzed: 03/06/17					
Total Dissolved Solids	286	25	10	mg/L		306			7	10	



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March 08, 2017

Report No.: AAC0053

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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Report No.: AAC0053

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7030045 - EPA 7470A											
Blank (7030045-BLK1) Prepared & Analyzed: 03/02/17											
Mercury	ND	0.00050	0.000041	mg/L							
LCS (7030045-BS1) Prepared & Analyzed: 03/02/17											
Mercury	0.00236	0.00050	0.000041	mg/L	2.5000E-3		94	80-120			
Matrix Spike (7030045-MS1) Source: AAC0053-01 Prepared & Analyzed: 03/02/17											
Mercury	0.00232	0.00050	0.000041	mg/L	2.5000E-3	ND	93	75-125			
Matrix Spike Dup (7030045-MSD1) Source: AAC0053-01 Prepared & Analyzed: 03/02/17											
Mercury	0.00233	0.00050	0.000041	mg/L	2.5000E-3	ND	93	75-125	0.4	20	
Post Spike (7030045-PS1) Source: AAC0053-01 Prepared & Analyzed: 03/02/17											
Mercury	1.66			ug/L	1.6667	-0.00660	99	80-120			
Batch 7030080 - EPA 3005A											
Blank (7030080-BLK1) Prepared: 03/02/17 Analyzed: 03/06/17											
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	0.000060	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	0.0002	mg/L							
Lead	ND	0.0050	0.00005	mg/L							
Molybdenum	ND	0.0100	0.0002	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	0.00003	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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Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7030080 - EPA 3005A											
LCS (7030080-BS1)						Prepared: 03/02/17 Analyzed: 03/06/17					
Antimony	0.104	0.0030	0.0003	mg/L	0.10000		104	80-120			
Arsenic	0.0954	0.0050	0.0004	mg/L	0.10000		95	80-120			
Barium	0.0993	0.0100	0.0003	mg/L	0.10000		99	80-120			
Beryllium	0.0908	0.0030	0.00007	mg/L	0.10000		91	80-120			
Boron	0.954	0.0400	0.0060	mg/L	1.0000		95	80-120			
Cadmium	0.0958	0.0010	0.000060	mg/L	0.10000		96	80-120			
Calcium	0.988	0.500	0.0104	mg/L	1.0000		99	80-120			
Chromium	0.105	0.0100	0.0003	mg/L	0.10000		105	80-120			
Cobalt	0.100	0.0100	0.0005	mg/L	0.10000		100	80-120			
Copper	0.100	0.0250	0.0002	mg/L	0.10000		100	80-120			
Lead	0.102	0.0050	0.00005	mg/L	0.10000		102	80-120			
Molybdenum	0.109	0.0100	0.0002	mg/L	0.10000		109	80-120			
Nickel	0.0989	0.0100	0.0003	mg/L	0.10000		99	80-120			
Selenium	0.0952	0.0100	0.0014	mg/L	0.10000		95	80-120			
Silver	0.102	0.0100	0.0003	mg/L	0.10000		102	80-120			
Thallium	0.102	0.0010	0.00003	mg/L	0.10000		102	80-120			
Vanadium	0.102	0.0100	0.0014	mg/L	0.10000		102	80-120			
Zinc	0.101	0.0100	0.0013	mg/L	0.10000		101	80-120			
Lithium	0.0913	0.0500	0.0011	mg/L	0.10000		91	80-120			
Matrix Spike (7030080-MS1)					Source: AAC0053-02			Prepared: 03/02/17 Analyzed: 03/06/17			
Antimony	0.105	0.0030	0.0003	mg/L	0.10000	0.0004	104	75-125			
Arsenic	0.0966	0.0050	0.0004	mg/L	0.10000	ND	97	75-125			
Barium	0.102	0.0100	0.0003	mg/L	0.10000	ND	102	75-125			
Beryllium	0.0966	0.0030	0.00007	mg/L	0.10000	ND	97	75-125			
Boron	0.991	0.0400	0.0060	mg/L	1.0000	ND	99	75-125			
Cadmium	0.0980	0.0010	0.000060	mg/L	0.10000	ND	98	75-125			
Calcium	1.06	0.500	0.0104	mg/L	1.0000	0.0200	104	75-125			
Chromium	0.103	0.0100	0.0003	mg/L	0.10000	ND	103	75-125			
Cobalt	0.0996	0.0100	0.0005	mg/L	0.10000	ND	100	75-125			
Copper	0.0995	0.0250	0.0002	mg/L	0.10000	ND	99	75-125			
Lead	0.104	0.0050	0.00005	mg/L	0.10000	ND	104	75-125			
Molybdenum	0.105	0.0100	0.0002	mg/L	0.10000	ND	105	75-125			
Nickel	0.0998	0.0100	0.0003	mg/L	0.10000	ND	100	75-125			
Selenium	0.0969	0.0100	0.0014	mg/L	0.10000	ND	97	75-125			
Silver	0.105	0.0100	0.0003	mg/L	0.10000	ND	105	75-125			
Thallium	0.105	0.0010	0.00003	mg/L	0.10000	ND	105	75-125			
Vanadium	0.100	0.0100	0.0014	mg/L	0.10000	ND	100	75-125			
Zinc	0.105	0.0100	0.0013	mg/L	0.10000	ND	105	75-125			
Lithium	0.0957	0.0500	0.0011	mg/L	0.10000	ND	96	75-125			



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.: AAC0053

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7030080 - EPA 3005A											
Matrix Spike Dup (7030080-MSD1)			Source: AAC0053-02			Prepared: 03/02/17 Analyzed: 03/06/17					
Antimony	0.106	0.0030	0.0003	mg/L	0.10000	0.0004	106	75-125	2	20	
Arsenic	0.0938	0.0050	0.0004	mg/L	0.10000	ND	94	75-125	3	20	
Barium	0.104	0.0100	0.0003	mg/L	0.10000	ND	104	75-125	1	20	
Beryllium	0.0988	0.0030	0.00007	mg/L	0.10000	ND	99	75-125	2	20	
Boron	1.01	0.0400	0.0060	mg/L	1.0000	ND	101	75-125	1	20	
Cadmium	0.0996	0.0010	0.000060	mg/L	0.10000	ND	100	75-125	2	20	
Calcium	1.05	0.500	0.0104	mg/L	1.0000	0.0200	103	75-125	0.3	20	
Chromium	0.101	0.0100	0.0003	mg/L	0.10000	ND	101	75-125	2	20	
Cobalt	0.0973	0.0100	0.0005	mg/L	0.10000	ND	97	75-125	2	20	
Copper	0.0995	0.0250	0.0002	mg/L	0.10000	ND	99	75-125	0.006	20	
Lead	0.103	0.0050	0.00005	mg/L	0.10000	ND	103	75-125	0.8	20	
Molybdenum	0.108	0.0100	0.0002	mg/L	0.10000	ND	108	75-125	3	20	
Nickel	0.101	0.0100	0.0003	mg/L	0.10000	ND	101	75-125	0.7	20	
Selenium	0.0982	0.0100	0.0014	mg/L	0.10000	ND	98	75-125	1	20	
Silver	0.105	0.0100	0.0003	mg/L	0.10000	ND	105	75-125	0.06	20	
Thallium	0.105	0.0010	0.00003	mg/L	0.10000	ND	105	75-125	0.1	20	
Vanadium	0.103	0.0100	0.0014	mg/L	0.10000	ND	103	75-125	3	20	
Zinc	0.102	0.0100	0.0013	mg/L	0.10000	ND	102	75-125	3	20	
Lithium	0.102	0.0500	0.0011	mg/L	0.10000	ND	102	75-125	6	20	
Post Spike (7030080-PS1)											
Source: AAC0053-02			Prepared: 03/02/17 Analyzed: 03/06/17								
Antimony	99.0			ug/L	100.00	0.350	99	80-120			
Arsenic	96.2			ug/L	100.00	0.0026	96	80-120			
Barium	101			ug/L	100.00	0.0641	101	80-120			
Beryllium	97.7			ug/L	100.00	0.0039	98	80-120			
Boron	971			ug/L	1000.0	0.0913	97	80-120			
Cadmium	100			ug/L	100.00	0.0138	100	80-120			
Calcium	1060			ug/L	1000.0	20.0	104	80-120			
Chromium	104			ug/L	100.00	0.158	104	80-120			
Cobalt	99.4			ug/L	100.00	0.0071	99	80-120			
Copper	102			ug/L	100.00	0.146	102	80-120			
Lead	102			ug/L	100.00	0.0150	102	80-120			
Molybdenum	109			ug/L	100.00	0.0580	109	80-120			
Nickel	101			ug/L	100.00	0.0629	100	80-120			
Selenium	100			ug/L	100.00	0.589	100	80-120			
Silver	105			ug/L	100.00	0.0028	105	80-120			
Thallium	103			ug/L	100.00	0.0170	103	80-120			
Vanadium	105			ug/L	100.00	-0.323	105	80-120			
Zinc	106			ug/L	100.00	0.540	106	80-120			
Lithium	101			ug/L	100.00	0.0163	101	80-120			



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

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.

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 Pacilla Heath McCorkle
 REQUESTED COMPLETION DATE: PO #: laburch@southernco.com
 PROJECT NAME/STATE: Plant Yates AP
 PROJECT #: Phase 2 CCR

CONTAINER TYPE PRESERVATION	ANALYSIS REQUESTED				CONTAINER TYPE PRESERVATION
	P	P	P	P	
3 # of	3	7	3		
METALS App. III & IV (EPA 6020/7470)	1	1	2		
CL, F, SO ₄ & TDS (EPA 300.0 & SM 2540C)	1	1	2		
Radium 226 & 228 (SW-846 9315/9320)	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

L A B I D N U M B E R → 1 2 3 4

RELINQUISHED BY: [Signature] DATE/TIME: 3-1-17 1650
 RELINQUISHED BY: [Signature] DATE/TIME: [Blank] [Blank]

SAMPLE SHIPPED VIA: UPS, FED-EX, USPS, COURIER, OTHER FS
 Custody Seal: Intact, Broken, Not Present
 # of Coolers: [Blank]

SAMPLED BY AND TITLE: [Signature] DATE/TIME: 3-1-17 0845
 RECEIVED BY: [Signature] DATE/TIME: [Blank] [Blank]

RECEIVED BY LAB: [Signature] DATE/TIME: 3/1/17 1650
 pH checked: [Signature] Temperature: 1.4°C Min, 1.4°C Max

FOR LAB USE ONLY: AAC0653
 Entered into LIMS: [Signature]
 Tracking #: [Blank]

Plant Yates COC Ash Ponds



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: 3/2/2017 10:01:29AM

Attn: Mr. Joju Abraham

Client: Georgia Power

Project: CCR Event

Date Received: 03/01/17 16:50

Work Order: AAC0053

Logged In By: Charles Hawks

OBSERVATIONS

#Samples: 4

#Containers: 16

Minimum Temp(C): 1.4

Maximum Temp(C): 1.4

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: AAC0053 Plant Yates
Pace Project No.: 30212422

Dear Maria Padilla:

Enclosed are the analytical results for sample(s) received by the laboratory on March 03, 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: AAC0053 Plant Yates
Pace Project No.: 30212422

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: AAC0053 Plant Yates

Pace Project No.: 30212422

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30212422001	YGWC-49	Water	02/27/17 13:10	03/03/17 09:45
30212422002	FB-1-2-28-17	Water	02/28/17 10:00	03/03/17 09:45
30212422003	YGWC-44	Water	02/28/17 10:30	03/03/17 09:45
30212422004	YGWC-36	Water	02/28/17 14:00	03/03/17 09:45

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: AAC0053 Plant Yates

Pace Project No.: 30212422

Lab ID	Sample ID	Method	Analysts	Analytes Reported
30212422001	YGWC-49	EPA 9315	LAL	1
		EPA 9320	JJY	1
		Total Radium Calculation	JAL	1
30212422002	FB-1-2-28-17	EPA 9315	LAL	1
		EPA 9320	JJY	1
		Total Radium Calculation	JAL	1
30212422003	YGWC-44	EPA 9315	LAL	1
		EPA 9320	JJY	1
		Total Radium Calculation	JAL	1
30212422004	YGWC-36	EPA 9315	LAL	1
		EPA 9320	JJY	1
		Total Radium Calculation	JAL	1

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AAC0053 Plant Yates
Pace Project No.: 30212422

Parameters		Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226		EPA 9315	0.174 ± 0.114 (0.158) C:94% T:NA	pCi/L	03/20/17 10:26	13982-63-3	
Radium-228		EPA 9320	0.0703 ± 0.319 (0.730) C:81% T:79%	pCi/L	03/18/17 15:46	15262-20-1	
Total Radium		Total Radium Calculation	0.244 ± 0.433 (0.888)	pCi/L	03/23/17 11:14	7440-14-4	

Parameters		Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226		EPA 9315	0.0124 ± 0.0654 (0.175) C:99% T:NA	pCi/L	03/20/17 10:26	13982-63-3	
Radium-228		EPA 9320	-0.0875 ± 0.354 (0.848) C:74% T:83%	pCi/L	03/18/17 15:47	15262-20-1	
Total Radium		Total Radium Calculation	0.0124 ± 0.419 (1.02)	pCi/L	03/23/17 11:14	7440-14-4	

Parameters		Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226		EPA 9315	0.0926 ± 0.104 (0.207) C:94% T:NA	pCi/L	03/20/17 10:26	13982-63-3	
Radium-228		EPA 9320	0.148 ± 0.367 (0.820) C:70% T:81%	pCi/L	03/18/17 15:47	15262-20-1	
Total Radium		Total Radium Calculation	0.241 ± 0.471 (1.03)	pCi/L	03/23/17 11:14	7440-14-4	

Parameters		Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226		EPA 9315	0.130 ± 0.127 (0.245) C:85% T:NA	pCi/L	03/20/17 10:26	13982-63-3	
Radium-228		EPA 9320	1.21 ± 0.776 (1.45) C:41% T:78%	pCi/L	03/18/17 15:47	15262-20-1	
Total Radium		Total Radium Calculation	1.34 ± 0.903 (1.70)	pCi/L	03/23/17 11:14	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: AAC0053 Plant Yates

Pace Project No.: 30212422

QC Batch:	251731	Analysis Method:	EPA 9315
QC Batch Method:	EPA 9315	Analysis Description:	9315 Total Radium
Associated Lab Samples:	30212422001, 30212422002, 30212422003, 30212422004		

METHOD BLANK:	1238369	Matrix:	Water
Associated Lab Samples:	30212422001, 30212422002, 30212422003, 30212422004		

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: AAC0053 Plant Yates

Pace Project No.: 30212422

QC Batch: 251828

Analysis Method: EPA 9320

QC Batch Method: EPA 9320

Analysis Description: 9320 Radium 228

Associated Lab Samples: 30212422001, 30212422002, 30212422003, 30212422004

METHOD BLANK: 1238974

Matrix: Water

Associated Lab Samples: 30212422001, 30212422002, 30212422003, 30212422004

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: AAC0053 Plant Yates
Pace Project No.: 30212422

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#: 30212422



Chain of Custody



Results Requested By: 3/24/2017

Owner Received Date:

Workorder Name: Plant Yates

Workorder: AAC0053

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

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

Preserved Containers

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Received By	Date/Time	Received By	Date/Time	Comments
1	YGWC-49	G	2/27/2017 13:10	AAC0053-01	GW					
2	FB-1-2-28-17	G	2/28/2017 10:00	AAC0053-02	GW					
3	YGWC-44	G	2/28/2017 10:30	AAC0053-03	GW					
4	YGWC-36	G	2/28/2017 14:00	AAC0053-04	GW					
5										
6										
7										
8										
9										
10										
Transfers										
1							3/2/17 17:30	<i>Charles Hunter</i>	3-17-17 09:45	
2										
3										

LAB USE ONLY
001
002
003
004

Cooler Temperature on Receipt NA °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.

30212422

PAGE: | OF

Pace Analytical Services, Inc.
110 TECHNOLOGY PARKWAY, PEACHTREE CORNERS, GA 30092
(770) 734-4200 : FAX (770) 734-4201 : www.ast-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 Patey CC: Mania Padilla Heath McCorkle		REQUESTED COMPLETION DATE: PO #: laburch@southernco.com		PROJECT NAME/STATE: Plant Yates AP		PROJECT #: Phase 2 CCR	
Collection DATE m-dd-yy	Collection TIME	MATRIX CODE	C O R M A B	SAMPLE IDENTIFICATION	CONTAINER TYPE PRESERVATION	ANALYSIS REQUESTED	CONTAINER TYPE PRESERVATION	REMARKS/ADDITIONAL INFORMATION	LAB #	DATE/TIME	DATE/TIME
2-28-17	1310	GW	✓	Y6WC-49	P - PLASTIC 1 - HCl, ≤6°C	CL, F, SO ₄ & TDS (FPA 6020/7470) Metals App. III & IV	P - PLASTIC 1 - HCl, ≤6°C				
2-28-17	1000	W	✓	FB-1-2-28-17	A - AMBER GLASS 2 - H ₂ SO ₄ , ≤5°C	Radium 226 & 228 (SW-646 9315/9320)	A - AMBER GLASS 2 - H ₂ SO ₄ , ≤5°C				
2-28-17	1030	GW	✓	Y6WC-44	G - CLEAR GLASS 3 - HNO ₃		G - CLEAR GLASS 3 - HNO ₃				
2-28-17	1400	GW	✓	Y6WC-36	V - VOA VIAL 4 - NaOH, ≤6°C		V - VOA VIAL 4 - NaOH, ≤6°C				
					S - STERILE 5 - NaOH/ZnAc, ≤8°C		S - STERILE 5 - NaOH/ZnAc, ≤8°C				
					O - OTHER 7 - ≤6°C not frozen		O - OTHER 7 - ≤6°C not frozen				
<p>SAMPLED BY AND TITLE: <i>C. P. K. R. R. W. K. L. K. S.</i> ACC DATE/TIME: 3-1-17 0845</p> <p>RECEIVED BY: <i>Heath McCorkle</i> DATE/TIME: 3-1-17 1650</p> <p>RECEIVED BY: <i>Heath McCorkle</i> DATE/TIME: 3-1-17 1650</p> <p>pH checked: <i>Yes</i> NO NA (GS) NO NA (MS) NO NA (MS)</p> <p>RELINQUISHED BY: <i>[Signature]</i> DATE/TIME: 3-1-17 1650</p> <p>RELINQUISHED BY: <i>[Signature]</i> DATE/TIME: 3-1-17 1650</p> <p>SAMPLE SHIPPED VIA: UPS FED-EX USPS COURIER OTHER FS</p> <p>Custody Seal: <i>[Signature]</i> # of Coolers: <i>1</i> # of Freezers: <i>0</i> Cause ID: <i>0121</i></p> <p>LAB #: <i>AA60653</i> FOR LAB USE ONLY</p> <p>Entered into LIMS: <i>[Signature]</i> Tracking #: <i>1747</i></p>											

Plant Yates CCR Ash Ponds

Sample Condition Upon Receipt Pittsburgh



Client Name: Pace Ga. Project # 30212422

Courier: Fed Ex UPS USPS Client Commercial Pace Other _____

Tracking #: 6812 5102 7312

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: _____ °C Final Temp: _____ °C
Temp should be above freezing to 6°C

Date and Initials of person examining contents: ML 3-3-17

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 checked="" type="checkbox"/>	<input type="checkbox"/>	4. <u>Jan 3/6/17</u>
Sample Labels match COC: -Includes date/time/ID 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.
Correct Containers Used: -Pace Containers Used:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10.
Containers Intact:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	11.
Orthophosphate field filtered	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	12.
Organic Samples checked for dechlorination:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	13.
Filtered volume received for Dissolved tests	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	14.
All containers have been checked for preservation.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	15.
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, Phenolics				Initial when completed <u>ML</u> Date/time of preservation _____
				Lot # of added preservative _____
Headspace in VOA Vials (>6mm):	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	16.
Trip Blank Present:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	17.
Trip Blank Custody Seals Present	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Rad Aqueous Samples Screened > 0.5 mrem/hr	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Initial when completed: <u>ML</u> Date: <u>3-3-17</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: 3/16/2017
Worklist: 34495
Matrix: DW

Method Blank Assessment	
MB Sample ID	1238369
MB concentration:	-0.002
M/B Counting Uncertainty:	0.063
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
Count Date:	3/20/2017	LCS34495	LCSD34495
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):	0.961		
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 Result 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:	22.69%
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 MDG.

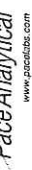
Jan 3 2017

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):	
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 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 Duplicate Result:	
Sample Matrix Spike Duplicate 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



Analyst Must Manually Enter All Fields Highlighted in Yellow.

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

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:	Pass

Laboratory Control Sample Assessment		LCSD (Y or N)?
Count Date:	3/18/2017	LCSD34513
Spike I.D.:	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
Numerical Performance Indicator:	6.005	3.854
Percent Recovery:	-3.63	0.565
Status vs Numerical Indicator:	77.55%	-6.39
Status vs Recovery:	N/A	62.13%
	Pass	N/A
	Pass	Pass

Duplicate Sample Assessment		Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Sample I.D.:	LCS34513	
Duplicate Sample I.D.:	LCS34513	
Sample Result (pCi/L, g, F):	4.807	
Sample Duplicate Result (pCi/L, g, F):	0.605	
Sample Duplicate Counting Uncertainty (pCi/L, g, F):	3.854	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.565	
Are sample and/or duplicate results below MDC?	NO	
Duplicate Numerical Performance Indicator:	2.255	
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	22.08%	
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 signature: Jm-3 pull it

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:	
(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, 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

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

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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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.



PACE ANALYTICAL SERVICES, LLC.

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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
 2480 Maner Road
 Atlanta GA, 30339

Attention: Mr. Joju Abraham

May 22, 2017

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
 2480 Maner Road
 Atlanta GA, 30339

May 22, 2017

Attention: Mr. Joju Abraham

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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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-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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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-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

May 22, 2017

Attention: Mr. Joju Abraham

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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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-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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 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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Environmental Monitoring & Laboratory Analysis
 110 Technology Parkway, Peachtree Corners, GA 30092
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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: 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



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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: 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



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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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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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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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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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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											
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			



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											
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	



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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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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.



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

Collection DATE M/D/Y	Collection TIME	MATRIX CODE	C O M P	G O R A B	SAMPLE IDENTIFICATION	ANALYSIS REQUESTED			CONTAINER TYPE	PRESERVATION	CONTAINER TYPE	PRESERVATION	
						Metals App. III & IV (FPA 6020/7470)	Cl, F, SO ₄ & TDS (FPA 300.D & SM 2540C)	Radium 226 & 228 (SVI-846 9315/9320)					
5/8/17	1200	GW	✓		Y6WA-47	1	1	2	3	7	3	P - PLASTIC A - AMBER GLASS G - CLEAR GLASS V - VOA VIAL S - STERILE O - OTHER	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
5/8/17	1335	GW	✓		Y6WC-44	1	1	2					
5/8/17	1505	GW	✓		Y6WC-46	1	1	2					
5/9/17	1155	GW	✓		Y6WC-36	1	1	2					
5/9/17	1320	GW	✓		Y6WC-49	1	1	2					
5/9/17	1525	GW	✓		Y6WC-45	1	1	2					
5/9/17	—	GW	✓		DUP-1	1	1	2					
5/10/17	1205	GW	✓		Y6WC-42	1	1	2					
5/10/17	1015	GW	✓		Y6WC-43	1	1	2					
5/10/17	1150	W	✓		EB-1-S-10-17	1	1	2					
5/9/17	1025	W	✓		FB-1-S-9-17	1	1	2					

LAB # AA E0387
 Entered into LIMS Tracking #
 DATE/TIME: 5/11/17 1930
 DATE/TIME: 5/11/17 0950
 SAMPLE SHIPPED VIA: UPS
 RELINQUISHED BY: [Signature]
 RELINQUISHED BY: [Signature]
 CLIENT: [Signature]
 OTHER: FS
 Temperature: 14.0 Min 14.0 Max
 Page 24 of 25



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

This report shall not be reproduced, except in full,
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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

Parameters		Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226		EPA 9315	0.120 ± 0.108 (0.206) C:86% T:NA	pCi/L	05/26/17 08:24	13982-63-3	
Radium-228		EPA 9320	0.335 ± 0.334 (0.688) C:81% T:85%	pCi/L	05/31/17 15:31	15262-20-1	
Total Radium		Total Radium Calculation	0.455 ± 0.442 (0.894)	pCi/L	06/05/17 14:39	7440-14-4	

Parameters		Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226		EPA 9315	0.118 ± 0.108 (0.208) C:86% T:NA	pCi/L	05/26/17 08:24	13982-63-3	
Radium-228		EPA 9320	0.390 ± 0.399 (0.826) C:79% T:79%	pCi/L	05/31/17 15:31	15262-20-1	
Total Radium		Total Radium Calculation	0.508 ± 0.507 (1.03)	pCi/L	06/05/17 14:39	7440-14-4	

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

Parameters		Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226		EPA 9315	0.148 ± 0.101 (0.156) C:98% T:NA	pCi/L	05/26/17 08:22	13982-63-3	
Radium-228		EPA 9320	0.161 ± 0.433 (0.962) C:79% T:82%	pCi/L	05/31/17 15:31	15262-20-1	
Total Radium		Total Radium Calculation	0.309 ± 0.534 (1.12)	pCi/L	06/05/17 14:39	7440-14-4	

Parameters		Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226		EPA 9315	0.217 ± 0.131 (0.198) C:90% T:NA	pCi/L	05/26/17 08:22	13982-63-3	
Radium-228		EPA 9320	0.302 ± 0.371 (0.786) C:79% T:77%	pCi/L	05/31/17 15:31	15262-20-1	

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: YGWC-49 Lab ID: 30218704005 Collected: 05/09/17 13:20 Received: 05/12/17 10:20 Matrix: Water PWS: Site ID: Sample Type:						
Total Radium	Total Radium Calculation	0.519 ± 0.502 (0.984)	pCi/L	06/05/17 14:39	7440-14-4	

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
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:						
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	

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
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:						
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	

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
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:						
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	

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
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:						
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

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:			
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
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	

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:			
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
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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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:
 Requested Analysis

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

WO#: 30218704



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

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.

Chain of Custody



Workorder: AAE0387 Workorder Name: Plant Yates Owner Received Date: Results Requested By: 6/5/2017

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
					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								

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.

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 Patby
OC: Maria Padilla
HEALTH OFFICER: 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:	LAB #	ENTERED INTO LISKS	TRACKING #
				P	P	P	P										
5/8/17	1200	GW	Y6WCA-47	1	1	2			4		5/11/17		250	AAE0387			
5/8/17	1335	GW	Y6WCC-44	1	1	2			4		5/11/17		250	AAE0387			
5/8/17	1505	GW	Y6WCC-46	1	1	2			4		5/11/17		250	AAE0387			
5/9/17	1155	AW	Y6WCC-36	1	1	2			4		5/11/17		250	AAE0387			
5/9/17	1320	GW	Y6WCC-49	1	1	2			4		5/11/17		250	AAE0387			
5/9/17	1525	GW	Y6WCC-45	1	1	2			4		5/11/17		250	AAE0387			
5/9/17		GW	DUP-1	1	1	2			4		5/11/17		250	AAE0387			
5/10/17	1205	GW	Y6WCC-42	1	1	2			4		5/11/17		250	AAE0387			
5/10/17	1015	GW	Y6WCC-43	1	1	2			4		5/11/17		250	AAE0387			
5/10/17	1150	W	EB-1-5-10-17	1	1	2			4		5/11/17		250	AAE0387			
5/9/17	1025	W	FB-1-5-9-17	1	1	2			4		5/11/17		250	AAE0387			

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, S - SOIL, NW - WASTEWATER, SL - SLUDGE, GW - GROUNDWATER, SD - SOLID, SW - SURFACE WATER, A - AIR, ST - STORM WATER, L - LIQUID, W - WATER, P - PRODUCT
REMARKS/ADDITIONAL INFORMATION:

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

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

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

LAB #: AA E0387
ENTERED INTO LISKS: [Signature]
TRACKING #:

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 (Y or N)?	N
		LCS35680	LCSD35680
Count Date:	5/24/2017		
Spike ID.:	13-033		
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		

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:	
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:	

Duplicate Sample Assessment	
Sample I.D.:	30218862001
Duplicate Sample I.D.:	30218862001DUP
Sample Result (pCi/L, g, F):	0.223
Sample Result Counting Uncertainty (pCi/L, g, F):	0.195
Sample Duplicate Result (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***

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:	
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]*

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

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 Result Counting Uncertainty (pCi/L, g, F):	0.117
Sample Duplicate Result (pCi/L, g, F):	0.206
Sample Duplicate Result Counting 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
LCS (Y or N)?		LCS035720
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
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:	
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:	

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:	



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.



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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

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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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.



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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: 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
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 Atlanta GA, 30339

Attention: Mr. Joju Abraham

July 25, 2017

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
 2480 Maner Road
 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
 2480 Maner Road
 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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 Atlanta GA, 30339

July 25, 2017

Attention: Mr. Joju Abraham

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
Client ID: EB-1-7-13-17
Date/Time Sampled: 7/13/2017 1:30:00PM
Matrix: Water

Project: CCR Event
Lab Number ID: AAG0387-07
Date/Time Received: 7/14/2017 9:20:00AM

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

Attention: Mr. Joju Abraham

July 25, 2017

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
 2480 Maner Road
 Atlanta GA, 30339

Attention: Mr. Joju Abraham

July 25, 2017

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

Attention: Mr. Joju Abraham

July 25, 2017

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

Report No.: AAG0387

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

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.

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)



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

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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

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
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	

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
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	

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
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	

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
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	

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
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: Plant Yates

Owner Received Date: Results Requested By: 8/8/2017

Report To:	Subcontract To:		Requested Analysis:	
Betsy McDaniel	Pace - Pittsburgh			
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
						CO	ON	H		
1	YGWA-47	G	7/11/2017 10:40	AAG0387-01	GW	2			7-17-17/09130	LAB USE ONLY 001
2	YGWC-42	G	7/11/2017 13:10	AAG0387-02	GW	2				002
3	YGWC-43	G	7/11/2017 14:50	AAG0387-03	GW	2				003
4	Dup-1	G	7/11/2017 0:00	AAG0387-04	GW	2				004
5	YGWC-36	G	7/13/2017 10:40	AAG0387-05	GW	4				005
6	YGWC-49	G	7/13/2017 12:55	AAG0387-06	GW	2				006
7	EB-1-7-13-17	G	7/13/2017 13:30	AAG0387-07	W	2				007
8	YGWC-44	G	7/13/2017 12:25	AAG0387-08	GW	2				008
9	YGWC-45	G	7/13/2017 10:35	AAG0387-09	GW	2				009
10	YGWC-46	G	7/13/2017 14:20	AAG0387-10	GW	2				010

Transfers	Released By	Date/Time	Received By	Date/Time	Comments
1	M. RAHMAN	7/19/17	John Shoups	7-17-17/09130	
2					
3					

Cooler Temperature on Receipt NA °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:				Requested Analysis			
Betsy McDaniel	Pace - Pittsburgh 1638 Roseytown Road Stes. 2,3,4 Greensburg, PA 15601 Phone (724) 850-5600				Radium 226, 228, Total			
Pace Analytical Atlanta								
110 Technology Parkway								
Peachtree Corners, GA 30092								
Phone (770)-734-4200								
Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Received By	Date/Time	Comments
11	FB-1-7-13-17	G	7/13/2017 14:35	AAG0387-11	GW	Wheeler/Pace	7-17-17/0930	
12								
13								
14								
15								
16								
17								
18								
19								
20								
Transfers	Released By	Date/Time	Received By	Date/Time	LAB USE ONLY			
1	M. RAHMAN	7/14/17	Wheeler/Pace	7-17-17/0930	011			
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 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 # of PRESERVATION CONTAINERS ↓		CONTAINER TYPE PRESERVATION # of CONTAINERS ↓		RELINQUISHED BY: DATE/TIME: 7-13-2017 1715 RELINQUISHED BY: DATE/TIME:		DATE/TIME: 7-13-2017 1715 DATE/TIME:		RECEIVED BY LAB: RECEIVED BY: B. Walker DATE/TIME: 7-14-17 0920 RECEIVED BY: [Signature] DATE/TIME: 7-14-17 0920		FOR LAB USE ONLY LAB #: AA60387 Entered into LIMS: [Signature] Tracking #:												
Collection DATE M-PP-YY	Collection TIME	MATRIX CODE	CO G	OR M	A B	SAMPLE IDENTIFICATION	CONTAINER TYPE	P	P	P	P	P	P	LAB #	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME	
7-11-17	1040	GW	✓			Y6WA-47		1	1	2														
7-11-17	1310	GW	✓			Y6WC-42		1	1	2														
7-11-17	1450	GW	✓			Y6WC-43		1	1	2														
7-11-17		GW	✓			DUP-1		1	1	2														
7-13-17	1040	GW	✓			Y6WC-36		1	1	4														
7-13-17	1255	GW	✓			Y6WC-49		1	1	2														
7-13-17	1330	W	✓			EB-1-7-13-17		1	1	2														
7-13-17	1025	GW	✓			Y6WC-44		1	1	2														
7-13-17	1035	GW	✓			Y6WC-45		1	1	2														
7-13-17	1420	GW	✓			Y6WC-46		1	1	2														
7-13-17	1435	W	✓			FB-1-7-13-17		1	1	2														

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: 7/19/17 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			
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: _____

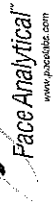
Comments/ Resolution: _____

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.
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:
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.
Sample Matrix Spike Result:
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 RPD:
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

LCSD (Y or N)?	N
LCSD36807	LCSD36807
Count Date:	8/2/2017
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
LCSD/LCSD 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 LCSD/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



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: AAJ0387

October 27, 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

October 27, 2017

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
YGWA-47	AAJ0387-01	Ground Water	10/10/17 10:55	10/11/17 17:25
YGWC-44	AAJ0387-02	Ground Water	10/10/17 14:15	10/11/17 17:25
YGWC-45	AAJ0387-03	Ground Water	10/10/17 12:40	10/11/17 17:25
EB-1-10-10-17	AAJ0387-04	Water	10/10/17 15:05	10/11/17 17:25
YGWC-46	AAJ0387-05	Ground Water	10/11/17 11:40	10/11/17 17:25
YGWC-49	AAJ0387-06	Ground Water	10/11/17 13:25	10/11/17 17:25
Dup-1	AAJ0387-07	Ground Water	10/11/17 00:00	10/11/17 17:25



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Georgia Power
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Atlanta GA, 30339

Attention: Mr. Joju Abraham

October 27, 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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October 27, 2017

Attention: Mr. Joju Abraham

Report No.: AAJ0387

Project: CCR Event

Client ID: YGWA-47

Lab Number ID: AAJ0387-01

Date/Time Sampled: 10/10/2017 10:55:00AM

Date/Time Received: 10/11/2017 5:25:00PM

Matrix: Ground Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	175	25	10	mg/L	SM 2540 C		1	10/13/17 13:20	10/13/17 13:20	7100400	JPT
Inorganic Anions											
Chloride	5.9	0.25	0.02	mg/L	EPA 300.0		1	10/15/17 10:10	10/15/17 14:48	7100429	RLC
Fluoride	ND	0.30	0.03	mg/L	EPA 300.0		1	10/15/17 10:10	10/15/17 14:48	7100429	RLC
Sulfate	93	10	0.17	mg/L	EPA 300.0		10	10/15/17 10:10	10/20/17 11:46	7100429	RLC
Metals, Total											
Antimony	ND	0.0030	0.0006	mg/L	EPA 6020B		1	10/18/17 09:05	10/19/17 19:11	7100507	CSW
Arsenic	0.0007	0.0050	0.0005	mg/L	EPA 6020B	B-01, J	1	10/18/17 09:05	10/19/17 19:11	7100507	CSW
Barium	0.0207	0.0100	0.0004	mg/L	EPA 6020B		1	10/18/17 09:05	10/19/17 19:11	7100507	CSW
Beryllium	ND	0.0030	0.00009	mg/L	EPA 6020B		1	10/18/17 09:05	10/19/17 19:11	7100507	CSW
Boron	0.0124	0.0400	0.0060	mg/L	EPA 6020B	J	1	10/18/17 09:05	10/19/17 19:11	7100507	CSW
Cadmium	ND	0.0010	0.0001	mg/L	EPA 6020B		1	10/18/17 09:05	10/19/17 19:11	7100507	CSW
Calcium	12.1	5.00	2.02	mg/L	EPA 6020B		50	10/18/17 09:05	10/19/17 19:17	7100507	CSW
Chromium	ND	0.0100	0.0005	mg/L	EPA 6020B		1	10/18/17 09:05	10/19/17 19:11	7100507	CSW
Cobalt	0.0036	0.0100	0.0003	mg/L	EPA 6020B	J	1	10/18/17 09:05	10/19/17 19:11	7100507	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	10/18/17 09:05	10/19/17 19:11	7100507	CSW
Molybdenum	ND	0.0100	0.0010	mg/L	EPA 6020B		1	10/18/17 09:05	10/19/17 19:11	7100507	CSW
Selenium	ND	0.0100	0.0018	mg/L	EPA 6020B		1	10/18/17 09:05	10/26/17 17:32	7100507	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	10/18/17 09:05	10/19/17 19:11	7100507	CSW
Lithium	0.0043	0.0500	0.0015	mg/L	EPA 6020B	J	1	10/18/17 09:05	10/19/17 19:11	7100507	CSW
Mercury	ND	0.00050	0.000036	mg/L	EPA 7470A		1	10/16/17 13:45	10/17/17 13:35	7100415	MTC



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October 27, 2017

Attention: Mr. Joju Abraham

Report No.: AAJ0387

Project: CCR Event

Client ID: YGWC-44

Lab Number ID: AAJ0387-02

Date/Time Sampled: 10/10/2017 2:15:00PM

Date/Time Received: 10/11/2017 5:25:00PM

Matrix: Ground Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	311	25	10	mg/L	SM 2540 C		1	10/13/17 13:20	10/13/17 13:20	7100400	JPT
Inorganic Anions											
Chloride	14	0.25	0.02	mg/L	EPA 300.0		1	10/15/17 10:10	10/15/17 15:50	7100429	RLC
Fluoride	ND	0.30	0.03	mg/L	EPA 300.0		1	10/15/17 10:10	10/15/17 15:50	7100429	RLC
Sulfate	140	10	0.17	mg/L	EPA 300.0		10	10/15/17 10:10	10/20/17 12:07	7100429	RLC
Metals, Total											
Antimony	ND	0.0030	0.0006	mg/L	EPA 6020B		1	10/18/17 09:05	10/19/17 19:34	7100507	CSW
Arsenic	0.0007	0.0050	0.0005	mg/L	EPA 6020B	B-01, J	1	10/18/17 09:05	10/19/17 19:34	7100507	CSW
Barium	0.112	0.0100	0.0004	mg/L	EPA 6020B		1	10/18/17 09:05	10/19/17 19:34	7100507	CSW
Beryllium	ND	0.0030	0.00009	mg/L	EPA 6020B		1	10/18/17 09:05	10/19/17 19:34	7100507	CSW
Boron	0.603	0.0400	0.0060	mg/L	EPA 6020B		1	10/18/17 09:05	10/19/17 19:34	7100507	CSW
Cadmium	ND	0.0010	0.0001	mg/L	EPA 6020B		1	10/18/17 09:05	10/19/17 19:34	7100507	CSW
Calcium	27.2	25.0	2.02	mg/L	EPA 6020B		50	10/18/17 09:05	10/19/17 19:40	7100507	CSW
Chromium	ND	0.0100	0.0005	mg/L	EPA 6020B		1	10/18/17 09:05	10/19/17 19:34	7100507	CSW
Cobalt	0.0017	0.0100	0.0003	mg/L	EPA 6020B	J	1	10/18/17 09:05	10/19/17 19:34	7100507	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	10/18/17 09:05	10/19/17 19:34	7100507	CSW
Molybdenum	ND	0.0100	0.0010	mg/L	EPA 6020B		1	10/18/17 09:05	10/19/17 19:34	7100507	CSW
Selenium	ND	0.0100	0.0018	mg/L	EPA 6020B		1	10/18/17 09:05	10/26/17 17:38	7100507	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	10/18/17 09:05	10/19/17 19:34	7100507	CSW
Lithium	0.0123	0.0500	0.0015	mg/L	EPA 6020B	J	1	10/18/17 09:05	10/19/17 19:34	7100507	CSW
Mercury	ND	0.00050	0.000036	mg/L	EPA 7470A		1	10/16/17 13:45	10/17/17 13:38	7100415	MTC



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October 27, 2017

Attention: Mr. Joju Abraham

Report No.: AAJ0387

Project: CCR Event

Client ID: YGWC-45

Lab Number ID: AAJ0387-03

Date/Time Sampled: 10/10/2017 12:40:00PM

Date/Time Received: 10/11/2017 5:25:00PM

Matrix: Ground Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	396	25	10	mg/L	SM 2540 C		1	10/13/17 13:20	10/13/17 13:20	7100400	JPT
Inorganic Anions											
Chloride	4.5	0.25	0.02	mg/L	EPA 300.0		1	10/15/17 10:10	10/15/17 16:11	7100429	RLC
Fluoride	0.39	0.30	0.03	mg/L	EPA 300.0		1	10/15/17 10:10	10/15/17 16:11	7100429	RLC
Sulfate	180	10	0.17	mg/L	EPA 300.0		10	10/15/17 10:10	10/20/17 12:28	7100429	RLC
Metals, Total											
Antimony	ND	0.0030	0.0006	mg/L	EPA 6020B		1	10/18/17 09:05	10/19/17 19:46	7100507	CSW
Arsenic	0.0006	0.0050	0.0005	mg/L	EPA 6020B	B-01, J	1	10/18/17 09:05	10/19/17 19:46	7100507	CSW
Barium	0.0708	0.0100	0.0004	mg/L	EPA 6020B		1	10/18/17 09:05	10/19/17 19:46	7100507	CSW
Beryllium	ND	0.0030	0.00009	mg/L	EPA 6020B		1	10/18/17 09:05	10/19/17 19:46	7100507	CSW
Boron	0.319	0.0400	0.0060	mg/L	EPA 6020B		1	10/18/17 09:05	10/19/17 19:46	7100507	CSW
Cadmium	ND	0.0010	0.0001	mg/L	EPA 6020B		1	10/18/17 09:05	10/19/17 19:46	7100507	CSW
Calcium	52.8	25.0	2.02	mg/L	EPA 6020B		50	10/18/17 09:05	10/19/17 19:51	7100507	CSW
Chromium	ND	0.0100	0.0005	mg/L	EPA 6020B		1	10/18/17 09:05	10/19/17 19:46	7100507	CSW
Cobalt	0.0008	0.0100	0.0003	mg/L	EPA 6020B	J	1	10/18/17 09:05	10/19/17 19:46	7100507	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	10/18/17 09:05	10/19/17 19:46	7100507	CSW
Molybdenum	0.0015	0.0100	0.0010	mg/L	EPA 6020B	J	1	10/18/17 09:05	10/19/17 19:46	7100507	CSW
Selenium	ND	0.0100	0.0018	mg/L	EPA 6020B		1	10/18/17 09:05	10/26/17 17:44	7100507	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	10/18/17 09:05	10/19/17 19:46	7100507	CSW
Lithium	0.0150	0.0500	0.0015	mg/L	EPA 6020B	J	1	10/18/17 09:05	10/19/17 19:46	7100507	CSW
Mercury	ND	0.00050	0.000036	mg/L	EPA 7470A		1	10/16/17 13:45	10/17/17 13:40	7100415	MTC



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October 27, 2017

Attention: Mr. Joju Abraham

Report No.: AAJ0387

Project: CCR Event

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

Lab Number ID: AAJ0387-04

Date/Time Sampled: 10/10/2017 3:05:00PM

Date/Time Received: 10/11/2017 5:25:00PM

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	10/13/17 13:20	10/13/17 13:20	7100400	JPT
Inorganic Anions											
Chloride	0.09	0.25	0.02	mg/L	EPA 300.0	J	1	10/15/17 10:10	10/15/17 16:32	7100429	RLC
Fluoride	0.87	0.30	0.03	mg/L	EPA 300.0		1	10/15/17 10:10	10/15/17 16:32	7100429	RLC
Sulfate	0.12	1.0	0.02	mg/L	EPA 300.0	J	1	10/15/17 10:10	10/15/17 16:32	7100429	RLC
Metals, Total											
Antimony	ND	0.0030	0.0006	mg/L	EPA 6020B		1	10/18/17 09:05	10/19/17 19:57	7100507	CSW
Arsenic	0.0007	0.0050	0.0005	mg/L	EPA 6020B	B-01, J	1	10/18/17 09:05	10/19/17 19:57	7100507	CSW
Barium	ND	0.0100	0.0004	mg/L	EPA 6020B		1	10/18/17 09:05	10/19/17 19:57	7100507	CSW
Beryllium	ND	0.0030	0.00009	mg/L	EPA 6020B		1	10/18/17 09:05	10/19/17 19:57	7100507	CSW
Boron	ND	0.0400	0.0060	mg/L	EPA 6020B		1	10/18/17 09:05	10/19/17 19:57	7100507	CSW
Cadmium	ND	0.0010	0.0001	mg/L	EPA 6020B		1	10/18/17 09:05	10/19/17 19:57	7100507	CSW
Calcium	0.0605	0.500	0.0404	mg/L	EPA 6020B	J	1	10/18/17 09:05	10/19/17 19:57	7100507	CSW
Chromium	ND	0.0100	0.0005	mg/L	EPA 6020B		1	10/18/17 09:05	10/19/17 19:57	7100507	CSW
Cobalt	ND	0.0100	0.0003	mg/L	EPA 6020B		1	10/18/17 09:05	10/19/17 19:57	7100507	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	10/18/17 09:05	10/19/17 19:57	7100507	CSW
Molybdenum	ND	0.0100	0.0010	mg/L	EPA 6020B		1	10/18/17 09:05	10/19/17 19:57	7100507	CSW
Selenium	ND	0.0100	0.0018	mg/L	EPA 6020B		1	10/18/17 09:05	10/26/17 17:50	7100507	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	10/18/17 09:05	10/19/17 19:57	7100507	CSW
Lithium	ND	0.0500	0.0015	mg/L	EPA 6020B		1	10/18/17 09:05	10/19/17 19:57	7100507	CSW
Mercury	ND	0.00050	0.000036	mg/L	EPA 7470A		1	10/16/17 13:45	10/17/17 13:42	7100415	MTC



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October 27, 2017

Attention: Mr. Joju Abraham

Report No.: AAJ0387

Project: CCR Event

Client ID: YGWC-46

Lab Number ID: AAJ0387-05

Date/Time Sampled: 10/11/2017 11:40:00AM

Date/Time Received: 10/11/2017 5:25:00PM

Matrix: Ground Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	835	25	10	mg/L	SM 2540 C		1	10/13/17 13:20	10/13/17 13:20	7100400	JPT
Inorganic Anions											
Chloride	29	0.25	0.02	mg/L	EPA 300.0		1	10/15/17 10:10	10/15/17 18:15	7100429	RLC
Fluoride	ND	0.30	0.03	mg/L	EPA 300.0		1	10/15/17 10:10	10/15/17 18:15	7100429	RLC
Sulfate	540	20	0.34	mg/L	EPA 300.0		20	10/15/17 10:10	10/20/17 12:50	7100429	RLC
Metals, Total											
Antimony	ND	0.0030	0.0006	mg/L	EPA 6020B		1	10/18/17 09:05	10/19/17 20:03	7100507	CSW
Arsenic	0.0011	0.0050	0.0005	mg/L	EPA 6020B	B-01, J	1	10/18/17 09:05	10/19/17 20:03	7100507	CSW
Barium	0.0288	0.0100	0.0004	mg/L	EPA 6020B		1	10/18/17 09:05	10/19/17 20:03	7100507	CSW
Beryllium	ND	0.0030	0.00009	mg/L	EPA 6020B		1	10/18/17 09:05	10/19/17 20:03	7100507	CSW
Boron	1.17	0.0400	0.0060	mg/L	EPA 6020B		1	10/18/17 09:05	10/19/17 20:03	7100507	CSW
Cadmium	ND	0.0010	0.0001	mg/L	EPA 6020B		1	10/18/17 09:05	10/19/17 20:03	7100507	CSW
Calcium	69.0	25.0	2.02	mg/L	EPA 6020B		50	10/18/17 09:05	10/19/17 20:08	7100507	CSW
Chromium	ND	0.0100	0.0005	mg/L	EPA 6020B		1	10/18/17 09:05	10/19/17 20:03	7100507	CSW
Cobalt	0.0556	0.0100	0.0003	mg/L	EPA 6020B		1	10/18/17 09:05	10/19/17 20:03	7100507	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	10/18/17 09:05	10/19/17 20:03	7100507	CSW
Molybdenum	0.0020	0.0100	0.0010	mg/L	EPA 6020B	J	1	10/18/17 09:05	10/19/17 20:03	7100507	CSW
Selenium	ND	0.0100	0.0018	mg/L	EPA 6020B		1	10/18/17 09:05	10/26/17 17:55	7100507	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	10/18/17 09:05	10/19/17 20:03	7100507	CSW
Lithium	0.0099	0.0500	0.0015	mg/L	EPA 6020B	J	1	10/18/17 09:05	10/19/17 20:03	7100507	CSW
Mercury	ND	0.00050	0.000036	mg/L	EPA 7470A		1	10/16/17 13:45	10/17/17 13:45	7100415	MTC



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October 27, 2017

Attention: Mr. Joju Abraham

Report No.: AAJ0387

Project: CCR Event

Client ID: YGWC-49

Lab Number ID: AAJ0387-06

Date/Time Sampled: 10/11/2017 1:25:00PM

Date/Time Received: 10/11/2017 5:25:00PM

Matrix: Ground Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	177	25	10	mg/L	SM 2540 C		1	10/13/17 13:20	10/13/17 13:20	7100400	JPT
Inorganic Anions											
Chloride	5.8	0.25	0.02	mg/L	EPA 300.0		1	10/15/17 10:10	10/15/17 18:36	7100429	RLC
Fluoride	0.14	0.30	0.03	mg/L	EPA 300.0	J	1	10/15/17 10:10	10/15/17 18:36	7100429	RLC
Sulfate	86	10	0.17	mg/L	EPA 300.0		10	10/15/17 10:10	10/20/17 13:11	7100429	RLC
Metals, Total											
Antimony	ND	0.0030	0.0006	mg/L	EPA 6020B		1	10/18/17 09:05	10/19/17 20:14	7100507	CSW
Arsenic	0.0006	0.0050	0.0005	mg/L	EPA 6020B	B-01, J	1	10/18/17 09:05	10/19/17 20:14	7100507	CSW
Barium	0.0780	0.0100	0.0004	mg/L	EPA 6020B		1	10/18/17 09:05	10/19/17 20:14	7100507	CSW
Beryllium	0.0001	0.0030	0.00009	mg/L	EPA 6020B	J	1	10/18/17 09:05	10/19/17 20:14	7100507	CSW
Boron	ND	0.0400	0.0060	mg/L	EPA 6020B		1	10/18/17 09:05	10/19/17 20:14	7100507	CSW
Cadmium	ND	0.0010	0.0001	mg/L	EPA 6020B		1	10/18/17 09:05	10/19/17 20:14	7100507	CSW
Calcium	12.4	5.00	2.02	mg/L	EPA 6020B		50	10/18/17 09:05	10/19/17 20:20	7100507	CSW
Chromium	0.0014	0.0100	0.0005	mg/L	EPA 6020B	J	1	10/18/17 09:05	10/19/17 20:14	7100507	CSW
Cobalt	0.0006	0.0100	0.0003	mg/L	EPA 6020B	J	1	10/18/17 09:05	10/19/17 20:14	7100507	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	10/18/17 09:05	10/19/17 20:14	7100507	CSW
Molybdenum	ND	0.0100	0.0010	mg/L	EPA 6020B		1	10/18/17 09:05	10/19/17 20:14	7100507	CSW
Selenium	0.0089	0.0100	0.0018	mg/L	EPA 6020B	J	1	10/18/17 09:05	10/26/17 18:18	7100507	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	10/18/17 09:05	10/19/17 20:14	7100507	CSW
Lithium	0.0036	0.0500	0.0015	mg/L	EPA 6020B	J	1	10/18/17 09:05	10/19/17 20:14	7100507	CSW
Mercury	ND	0.00050	0.000036	mg/L	EPA 7470A		1	10/16/17 13:45	10/17/17 13:47	7100415	MTC



PACE ANALYTICAL SERVICES, LLC.

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Georgia Power
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 Atlanta GA, 30339

October 27, 2017

Attention: Mr. Joju Abraham

Report No.: AAJ0387

Project: CCR Event

Client ID: Dup-1

Lab Number ID: AAJ0387-07

Date/Time Sampled: 10/11/2017 12:00:00AM

Date/Time Received: 10/11/2017 5:25:00PM

Matrix: Ground Water

Analyte	Result	RL	MDL	Units	Method	Qual.	DF	Preparation Date	Analytical Date	Batch	Init.
General Chemistry											
Total Dissolved Solids	168	25	10	mg/L	SM 2540 C		1	10/13/17 13:20	10/13/17 13:20	7100400	JPT
Inorganic Anions											
Chloride	5.7	0.25	0.02	mg/L	EPA 300.0		1	10/15/17 10:10	10/15/17 19:17	7100429	RLC
Fluoride	0.13	0.30	0.03	mg/L	EPA 300.0	J	1	10/15/17 10:10	10/15/17 19:17	7100429	RLC
Sulfate	83	10	0.17	mg/L	EPA 300.0		10	10/15/17 10:10	10/20/17 13:32	7100429	RLC
Metals, Total											
Antimony	ND	0.0030	0.0006	mg/L	EPA 6020B		1	10/18/17 09:05	10/19/17 20:37	7100507	CSW
Arsenic	0.0007	0.0050	0.0005	mg/L	EPA 6020B	B-01, J	1	10/18/17 09:05	10/19/17 20:37	7100507	CSW
Barium	0.0765	0.0100	0.0004	mg/L	EPA 6020B		1	10/18/17 09:05	10/19/17 20:37	7100507	CSW
Beryllium	0.0001	0.0030	0.00009	mg/L	EPA 6020B	J	1	10/18/17 09:05	10/19/17 20:37	7100507	CSW
Boron	ND	0.0400	0.0060	mg/L	EPA 6020B		1	10/18/17 09:05	10/19/17 20:37	7100507	CSW
Cadmium	ND	0.0010	0.0001	mg/L	EPA 6020B		1	10/18/17 09:05	10/19/17 20:37	7100507	CSW
Calcium	12.4	5.00	2.02	mg/L	EPA 6020B		50	10/18/17 09:05	10/19/17 20:43	7100507	CSW
Chromium	0.0014	0.0100	0.0005	mg/L	EPA 6020B	J	1	10/18/17 09:05	10/19/17 20:37	7100507	CSW
Cobalt	0.0006	0.0100	0.0003	mg/L	EPA 6020B	J	1	10/18/17 09:05	10/19/17 20:37	7100507	CSW
Lead	ND	0.0050	0.00007	mg/L	EPA 6020B		1	10/18/17 09:05	10/19/17 20:37	7100507	CSW
Molybdenum	ND	0.0100	0.0010	mg/L	EPA 6020B		1	10/18/17 09:05	10/19/17 20:37	7100507	CSW
Selenium	0.0062	0.0100	0.0018	mg/L	EPA 6020B	J	1	10/18/17 09:05	10/19/17 20:37	7100507	CSW
Thallium	ND	0.0010	0.00005	mg/L	EPA 6020B		1	10/18/17 09:05	10/19/17 20:37	7100507	CSW
Lithium	0.0036	0.0500	0.0015	mg/L	EPA 6020B	J	1	10/18/17 09:05	10/19/17 20:37	7100507	CSW
Mercury	ND	0.00050	0.000036	mg/L	EPA 7470A		1	10/16/17 13:45	10/17/17 13:49	7100415	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

October 27, 2017

Report No.: AAJ0387

General Chemistry - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7100400 - SM 2540 C											
Blank (7100400-BLK1)						Prepared & Analyzed: 10/13/17					
Total Dissolved Solids	ND	25	10	mg/L							
LCS (7100400-BS1)						Prepared & Analyzed: 10/13/17					
Total Dissolved Solids	368	25	10	mg/L	400.00		92	84-108			
Duplicate (7100400-DUP1)						Source: AAJ0387-04 Prepared & Analyzed: 10/13/17					
Total Dissolved Solids	ND	25	10	mg/L		ND				10	
Duplicate (7100400-DUP2)						Source: AAJ0389-01 Prepared & Analyzed: 10/13/17					
Total Dissolved Solids	225	25	10	mg/L		204			10	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 7100429 - EPA 300.0											
Blank (7100429-BLK1)						Prepared & Analyzed: 10/15/17					
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 (7100429-BS1)						Prepared & Analyzed: 10/15/17					
Chloride	10.9	0.25	0.02	mg/L	10.020		108	90-110			
Fluoride	9.65	0.30	0.03	mg/L	10.020		96	90-110			
Sulfate	10.6	1.0	0.02	mg/L	10.050		105	90-110			
Matrix Spike (7100429-MS1)						Source: AAJ0387-01 Prepared & Analyzed: 10/15/17					
Chloride	15.7	0.25	0.02	mg/L	10.020	5.87	99	90-110			
Fluoride	9.92	0.30	0.03	mg/L	10.020	ND	99	90-110			
Sulfate	91.9	1.0	0.02	mg/L	10.050	92.1	NR	90-110			QM-02
Matrix Spike (7100429-MS2)						Source: AAJ0387-06 Prepared & Analyzed: 10/15/17					
Chloride	15.2	0.25	0.02	mg/L	10.020	5.81	94	90-110			
Fluoride	9.93	0.30	0.03	mg/L	10.020	0.14	98	90-110			
Sulfate	86.2	1.0	0.02	mg/L	10.050	84.8	14	90-110			QM-02
Matrix Spike Dup (7100429-MSD1)						Source: AAJ0387-01 Prepared & Analyzed: 10/15/17					
Chloride	15.7	0.25	0.02	mg/L	10.020	5.87	98	90-110	0.08	15	
Fluoride	9.99	0.30	0.03	mg/L	10.020	ND	100	90-110	0.7	15	
Sulfate	92.0	1.0	0.02	mg/L	10.050	92.1	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 7100415 - EPA 7470A											
Blank (7100415-BLK1) Prepared: 10/16/17 Analyzed: 10/17/17											
Mercury	ND	0.00050	0.000036	mg/L							
LCS (7100415-BS1) Prepared: 10/16/17 Analyzed: 10/17/17											
Mercury	0.00236	0.00050	0.000036	mg/L	2.5000E-3		94	80-120			
Matrix Spike (7100415-MS1) Source: AAJ0387-01 Prepared: 10/16/17 Analyzed: 10/17/17											
Mercury	0.00238	0.00050	0.000036	mg/L	2.5000E-3	ND	95	75-125			
Matrix Spike Dup (7100415-MSD1) Source: AAJ0387-01 Prepared: 10/16/17 Analyzed: 10/17/17											
Mercury	0.00233	0.00050	0.000036	mg/L	2.5000E-3	ND	93	75-125	2	20	
Post Spike (7100415-PS1) Source: AAJ0387-01 Prepared: 10/16/17 Analyzed: 10/17/17											
Mercury	1.69			ug/L	1.6667	-0.00382	101	80-120			
Batch 7100507 - EPA 3005A											
Blank (7100507-BLK1) Prepared: 10/18/17 Analyzed: 10/19/17											
Antimony	ND	0.0030	0.0006	mg/L							
Arsenic	0.0006	0.0050	0.0005	mg/L							J
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	0.0021	0.0100	0.0012	mg/L							J
Zinc	ND	0.0100	0.0012	mg/L							
Lithium	ND	0.0500	0.0015	mg/L							



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October 27, 2017

Report No.: AAJ0387

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 7100507 - EPA 3005A

LCS (7100507-BS1)

Prepared: 10/18/17 Analyzed: 10/19/17

Antimony	0.102	0.0030	0.0006	mg/L	0.10000		102	80-120			
Arsenic	0.0967	0.0050	0.0005	mg/L	0.10000		97	80-120			
Barium	0.0981	0.0100	0.0004	mg/L	0.10000		98	80-120			
Beryllium	0.107	0.0030	0.00009	mg/L	0.10000		107	80-120			
Cadmium	0.100	0.0010	0.0001	mg/L	0.10000		100	80-120			
Chromium	0.101	0.0100	0.0005	mg/L	0.10000		101	80-120			
Cobalt	0.0988	0.0100	0.0003	mg/L	0.10000		99	80-120			
Copper	0.0991	0.0250	0.0003	mg/L	0.10000		99	80-120			
Lead	0.103	0.0050	0.00007	mg/L	0.10000		103	80-120			
Nickel	0.0996	0.0100	0.0005	mg/L	0.10000		100	80-120			
Selenium	0.103	0.0100	0.0018	mg/L	0.10000		103	80-120			
Silver	0.100	0.0100	0.0002	mg/L	0.10000		100	80-120			
Thallium	0.104	0.0010	0.00005	mg/L	0.10000		104	80-120			
Vanadium	0.101	0.0100	0.0012	mg/L	0.10000		101	80-120			
Zinc	0.101	0.0100	0.0012	mg/L	0.10000		101	80-120			
Lithium	0.102	0.0500	0.0015	mg/L	0.10000		102	80-120			

Matrix Spike (7100507-MS1)

Source: AAJ0387-02

Prepared: 10/18/17 Analyzed: 10/19/17

Antimony	0.101	0.0030	0.0006	mg/L	0.10000	ND	101	75-125			
Arsenic	0.101	0.0050	0.0005	mg/L	0.10000	0.0007	100	75-125			
Barium	0.216	0.0100	0.0004	mg/L	0.10000	0.112	104	75-125			
Beryllium	0.0954	0.0030	0.00009	mg/L	0.10000	ND	95	75-125			
Cadmium	0.0974	0.0010	0.0001	mg/L	0.10000	ND	97	75-125			
Chromium	0.101	0.0100	0.0005	mg/L	0.10000	ND	101	75-125			
Cobalt	0.0987	0.0100	0.0003	mg/L	0.10000	0.0017	97	75-125			
Copper	0.0959	0.0250	0.0003	mg/L	0.10000	ND	96	75-125			
Lead	0.101	0.0050	0.00007	mg/L	0.10000	ND	101	75-125			
Nickel	0.0970	0.0100	0.0005	mg/L	0.10000	0.0013	96	75-125			
Selenium	0.106	0.0100	0.0018	mg/L	0.10000	ND	106	75-125			
Silver	0.0974	0.0100	0.0002	mg/L	0.10000	ND	97	75-125			
Thallium	0.103	0.0010	0.00005	mg/L	0.10000	ND	103	75-125			
Vanadium	0.101	0.0100	0.0012	mg/L	0.10000	0.0018	99	75-125			
Zinc	0.0996	0.0100	0.0012	mg/L	0.10000	ND	100	75-125			
Lithium	0.108	0.0500	0.0015	mg/L	0.10000	0.0123	96	75-125			



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October 27, 2017

Report No.: AAJ0387

Metals, Total - Quality Control

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7100507 - EPA 3005A											
Matrix Spike Dup (7100507-MSD1)			Source: AAJ0387-02			Prepared: 10/18/17 Analyzed: 10/19/17					
Antimony	0.105	0.0030	0.0006	mg/L	0.10000	ND	105	75-125	4	20	
Arsenic	0.100	0.0050	0.0005	mg/L	0.10000	0.0007	99	75-125	0.6	20	
Barium	0.214	0.0100	0.0004	mg/L	0.10000	0.112	102	75-125	1	20	
Beryllium	0.0988	0.0030	0.00009	mg/L	0.10000	ND	99	75-125	4	20	
Cadmium	0.102	0.0010	0.0001	mg/L	0.10000	ND	102	75-125	4	20	
Chromium	0.101	0.0100	0.0005	mg/L	0.10000	ND	101	75-125	0.2	20	
Cobalt	0.101	0.0100	0.0003	mg/L	0.10000	0.0017	99	75-125	2	20	
Copper	0.0984	0.0250	0.0003	mg/L	0.10000	ND	98	75-125	3	20	
Lead	0.102	0.0050	0.00007	mg/L	0.10000	ND	102	75-125	0.3	20	
Nickel	0.102	0.0100	0.0005	mg/L	0.10000	0.0013	100	75-125	5	20	
Selenium	0.105	0.0100	0.0018	mg/L	0.10000	ND	105	75-125	0.9	20	
Silver	0.0991	0.0100	0.0002	mg/L	0.10000	ND	99	75-125	2	20	
Thallium	0.103	0.0010	0.00005	mg/L	0.10000	ND	103	75-125	0.2	20	
Vanadium	0.101	0.0100	0.0012	mg/L	0.10000	0.0018	99	75-125	0.0007	20	
Zinc	0.102	0.0100	0.0012	mg/L	0.10000	ND	102	75-125	2	20	
Lithium	0.107	0.0500	0.0015	mg/L	0.10000	0.0123	95	75-125	0.4	20	
Post Spike (7100507-PS1)			Source: AAJ0387-02			Prepared: 10/18/17 Analyzed: 10/19/17					
Antimony	99.2			ug/L	100.00	0.0789	99	80-120			
Arsenic	99.5			ug/L	100.00	0.670	99	80-120			
Barium	217			ug/L	100.00	112	105	80-120			
Beryllium	100			ug/L	100.00	0.0097	100	80-120			
Cadmium	99.9			ug/L	100.00	0.0338	100	80-120			
Chromium	101			ug/L	100.00	0.101	100	80-120			
Cobalt	97.4			ug/L	100.00	1.70	96	80-120			
Copper	98.1			ug/L	100.00	0.0651	98	80-120			
Lead	101			ug/L	100.00	0.0115	101	80-120			
Nickel	98.6			ug/L	100.00	1.30	97	80-120			
Selenium	107			ug/L	100.00	-0.0424	107	80-120			
Silver	103			ug/L	100.00	-0.0009	103	80-120			
Thallium	104			ug/L	100.00	0.0058	104	80-120			
Vanadium	107			ug/L	100.00	1.77	105	80-120			
Zinc	99.8			ug/L	100.00	0.773	99	80-120			
Lithium	106			ug/L	100.00	12.3	94	80-120			



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October 27, 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.



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: _____ OF _____

CLIENT NAME:
Georgia Power

CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER:
241 Ralph McGill Blvd SE B10185
Atlanta, GA 30308
404-505-7239

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	ANALYSIS REQUESTED			CONTAINER TYPE	PRESERVATION	# of	CONTAINER TYPE	PRESERVATION	L A B I D N U M B E R	REMARKS/ADDITIONAL INFORMATION
	P	P	P							
P - PLASTIC	3	7	3	(EPA 60207/470)	Metals App. III & IV	4	Y6WA-47	1 1 2	1	1
A - AMBER GLASS				(FPA 30D.0 & SM 2540C)	Cr, F, SO & TDS	4	Y6WC-44	1 1 2	2	2
G - CLEAR GLASS				(FPA 30D.0 & SM 2540C)	Cr, F, SO & TDS	4	Y6WC-45	1 1 2	2	2
V - VOA VIAL				(FPA 30D.0 & SM 2540C)	Cr, F, SO & TDS	4	EB-1-10-10-17	1 1 2	2	2
S - STERILE				(FPA 30D.0 & SM 2540C)	Cr, F, SO & TDS	4	Y6WC-46	1 1 2	2	2
O - OTHER				(FPA 30D.0 & SM 2540C)	Cr, F, SO & TDS	4	Y6WC-49	1 1 2	2	2
						4	DUP-1	1 1 2	2	2

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/ZnAc, 56°C
6 - Na₂S₂O₃, 56°C
7 - 56°C not frozen

MATRIX CODES:
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

RELINQUISHED BY: [Signature] DATE/TIME: 10-11-17 14:30

RECEIVED BY: [Signature] DATE/TIME: 10-11-17 17:25

LAB #: AAJ 0387

ENTERED INTO LIMS: [Signature]

TRACKING #:

COOLERS: COURIER (), OTHER (), FS ()

TEMPERATURE: 10-11-17 17:25

MIN: 4:3

Plant Yates COC Phase II



Sample Condition Upon Receipt

Client Name: GIA Power

Project # AAJ0387

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 4.3

Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: 10/11/17 MR

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)



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: 10/13/2017 3:37:27PM

Attn: Mr. Joju Abraham

Client: Georgia Power

Project: CCR Event

Date Received: 10/11/17 17:25

Work Order: AAJ0387

Logged In By: Mohammad M. Rahman

OBSERVATIONS

#Samples: 7

#Containers: 28

Minimum Temp(C): 4.3

Maximum Temp(C): 4.3

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 26, 2017

Mr. Joju Abraham
Georgia Power
2480 Maner Road
Atlanta, GA 30339

RE: Project: AAJ0387 Plant Yates
Pace Project No.: 30232908

Dear Mr. Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on October 13, 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: AAJ0387 Plant Yates
Pace Project No.: 30232908

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: AAJ0387 Plant Yates

Pace Project No.: 30232908

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30232908001	YGWA-47	Water	10/10/17 10:55	10/13/17 09:50
30232908002	YGWC-44	Water	10/10/17 14:15	10/13/17 09:50
30232908003	YGWC-45	Water	10/10/17 12:40	10/13/17 09:50
30232908004	EB-1-10-10-17	Water	10/10/17 15:05	10/13/17 09:50
30232908005	YGWC-46	Water	10/11/17 11:40	10/13/17 09:50
30232908006	YGWC-49	Water	10/11/17 13:25	10/13/17 09:50
30232908007	Dup-1	Water	10/11/17 00:00	10/13/17 09:50

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: AAJ0387 Plant Yates
Pace Project No.: 30232908

Lab ID	Sample ID	Method	Analysts	Analytes Reported
30232908001	YGWA-47	EPA 9315	JC2	1
		EPA 9320	VAL	1
		Total Radium Calculation	JAL	1
30232908002	YGWC-44	EPA 9315	JC2	1
		EPA 9320	VAL	1
		Total Radium Calculation	JAL	1
30232908003	YGWC-45	EPA 9315	JC2	1
		EPA 9320	VAL	1
		Total Radium Calculation	JAL	1
30232908004	EB-1-10-10-17	EPA 9315	JC2	1
		EPA 9320	VAL	1
		Total Radium Calculation	JAL	1
30232908005	YGWC-46	EPA 9315	JC2	1
		EPA 9320	VAL	1
		Total Radium Calculation	JAL	1
30232908006	YGWC-49	EPA 9315	JC2	1
		EPA 9320	VAL	1
		Total Radium Calculation	JAL	1
30232908007	Dup-1	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: AAJ0387 Plant Yates
Pace Project No.: 30232908

Parameters		Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226		EPA 9315	0.350 ± 0.226 (0.315) C:89% T:NA	pCi/L	10/19/17 08:27	13982-63-3	
Radium-228		EPA 9320	0.299 ± 0.335 (0.696) C:72% T:98%	pCi/L	10/20/17 12:21	15262-20-1	
Total Radium		Total Radium Calculation	0.649 ± 0.561 (1.01)	pCi/L	10/23/17 12:49	7440-14-4	

Parameters		Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226		EPA 9315	0.676 ± 0.304 (0.311) C:89% T:NA	pCi/L	10/19/17 08:27	13982-63-3	
Radium-228		EPA 9320	0.751 ± 0.451 (0.832) C:74% T:83%	pCi/L	10/20/17 12:22	15262-20-1	
Total Radium		Total Radium Calculation	1.43 ± 0.755 (1.14)	pCi/L	10/23/17 12:49	7440-14-4	

Parameters		Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226		EPA 9315	1.03 ± 0.390 (0.350) C:86% T:NA	pCi/L	10/19/17 08:27	13982-63-3	
Radium-228		EPA 9320	0.443 ± 0.385 (0.772) C:66% T:97%	pCi/L	10/20/17 12:22	15262-20-1	
Total Radium		Total Radium Calculation	1.47 ± 0.775 (1.12)	pCi/L	10/23/17 12:49	7440-14-4	

Parameters		Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226		EPA 9315	0.142 ± 0.211 (0.458) C:78% T:NA	pCi/L	10/19/17 08:27	13982-63-3	
Radium-228		EPA 9320	1.44 ± 0.609 (1.04) C:74% T:84%	pCi/L	10/20/17 12:22	15262-20-1	
Total Radium		Total Radium Calculation	1.58 ± 0.820 (1.50)	pCi/L	10/23/17 12:49	7440-14-4	

Parameters		Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226		EPA 9315	0.645 ± 0.314 (0.377) C:83% T:NA	pCi/L	10/19/17 08:27	13982-63-3	
Radium-228		EPA 9320	0.211 ± 0.393 (0.852) C:68% T:89%	pCi/L	10/20/17 12:22	15262-20-1	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: AAJ0387 Plant Yates

Pace Project No.: 30232908

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Total Radium	Total Radium Calculation	0.856 ± 0.707 (1.23)	pCi/L	10/23/17 12:49	7440-14-4	

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.801 ± 0.352 (0.419) C:89% T:NA	pCi/L	10/19/17 08:27	13982-63-3	
Radium-228	EPA 9320	0.605 ± 0.404 (0.764) C:71% T:86%	pCi/L	10/20/17 12:22	15262-20-1	
Total Radium	Total Radium Calculation	1.41 ± 0.756 (1.18)	pCi/L	10/23/17 12:49	7440-14-4	

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.500 ± 0.293 (0.426) C:83% T:NA	pCi/L	10/19/17 08:27	13982-63-3	
Radium-228	EPA 9320	0.315 ± 0.453 (0.964) C:65% T:77%	pCi/L	10/20/17 12:22	15262-20-1	
Total Radium	Total Radium Calculation	0.815 ± 0.746 (1.39)	pCi/L	10/23/17 11:28	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: AAJ0387 Plant Yates

Pace Project No.: 30232908

QC Batch: 275694

Analysis Method: EPA 9320

QC Batch Method: EPA 9320

Analysis Description: 9320 Radium 228

Associated Lab Samples: 30232908001, 30232908002, 30232908003, 30232908004, 30232908005, 30232908006, 30232908007

METHOD BLANK: 1355356

Matrix: Water

Associated Lab Samples: 30232908001, 30232908002, 30232908003, 30232908004, 30232908005, 30232908006, 30232908007

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: AAJ0387 Plant Yates

Pace Project No.: 30232908

QC Batch: 275693

Analysis Method: EPA 9315

QC Batch Method: EPA 9315

Analysis Description: 9315 Total Radium

Associated Lab Samples: 30232908001, 30232908002, 30232908003, 30232908004, 30232908005, 30232908006, 30232908007

METHOD BLANK: 1355355

Matrix: Water

Associated Lab Samples: 30232908001, 30232908002, 30232908003, 30232908004, 30232908005, 30232908006, 30232908007

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: AAJ0387 Plant Yates

Pace Project No.: 30232908

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: AAJ0387 **Workorder Name:** Pace Analytical **Plant/Yates:** Pace - Pittsburgh
Report To: Betsy McDaniel **Subcontract To:** 1638 Roseytown Road **Owner Received Date:** 11/6/2017
 110 Technology Parkway Stes. 2,3,4 **Requested Analysis:** WO# : 30232908
 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		LAB USE ONLY
						NO	HI	
1	YGWA-47	G	10/10/2017 10:55	AAJ0387-01	GW	2		001
2	YGWC-44	G	10/10/2017 14:15	AAJ0387-02	GW	2		002
3	YGWC-45	G	10/10/2017 12:40	AAJ0387-03	GW	2		003
4	EB-1-10-10-17	G	10/10/2017 15:05	AAJ0387-04	W	2		004
5	YGWC-46	G	10/11/2017 11:40	AAJ0387-05	GW	2		005
6	YGWC-49	G	10/11/2017 13:25	AAJ0387-06	GW	2		006
7	Dup-1	G	10/11/2017 0:00	AAJ0387-07	GW	2		007
8								
9								
10								

Transfers	Released By	Date/Time	Received By	Date/Time	Comments
1	M. RATTMAN	10/12/17	<i>[Signature]</i>	10-17-17 09:50	
2					
3					

Cooler Temperature on Receipt: N/A °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.

30232908

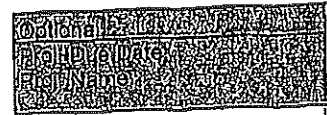
Sample Condition Upon Receipt



Client Name: GIA Power

Project # AAJ0387

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 4.3 Biological Tissue Is Frozen: Yes No
Temp should be above freezing to 8°C

Date and Initials of person examining contents: 10/11/17 MR

		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

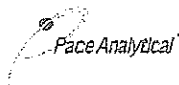
Person Contacted: _____ Date/Time: _____

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 11September2008

Pittsburgh Lab Sample Condition Upon Receipt



Client Name: Pace GA

Project # 30232908

Courier: Fed Ex UPS USPS Client Commercial Pace Other _____

Tracking #: foin

Label	<u>ML</u>
LIMS Login	<u>ANV</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 N/A °C Correction Factor: _____ °C Final Temp: _____ °C

Temp should be above freezing to 6°C

Date and Initials of person examining contents: ML 10-13-17

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>ht</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>PH < 2</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	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>ML</u> Date: <u>10-13-17</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

LCSID (Y or N)? N
 LCSID 38279
 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 Counting Uncertainty (pCi/L, g, F): 0.625
 Sample Duplicate Result Counting Uncertainty (pCi/L, g, F): 0.369
 Sample Duplicate Result Counting Uncertainty (pCi/L, g, F): 1.022
 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***

Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
 30233110002
 30233110002DUP

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.

Signature
 10/18/17

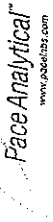
Sample Matrix Spike Control Assessment

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:
 MSD Numerical Performance Indicator:
 MS 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:
 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
MB 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

LCS#	Y or N?
LCS38278	Y
Count Date:	10/19/2017
Spike I.D.:	17-030
Spike Concentration (pCi/mL):	80.189
Volume Used (mL):	0.10
Aliquot Volume (L, g, F):	0.510
Target Conc. (pCi/L, g, F):	15.727
Uncertainty (Calculated):	1.455
Result (pCi/L, g, F):	13.054
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	1.218
Numerical Performance Indicator:	-2.79
Percent Recovery:	82.91%
Status vs Numerical Indicator:	N/A
Status vs Recovery:	Pass

Duplicate Sample Assessment

Sample I.D.	Duplicate Sample I.D.
LCS38278	LCS38278
Duplicate Result (pCi/L, g, F):	13.094
Sample Result Counting Uncertainty (pCi/L, g, F):	1.218
Sample Duplicate Result (pCi/L, g, F):	12.980
Sample Duplicate Counting Uncertainty (pCi/L, g, F):	1.233
Ave 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:
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:
Sample 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 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

April 30, 2018

Joju Abraham
Georgia Power - Coal Combustion Residuals
2480 Maner Road
Atlanta, GA 30339

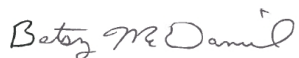
RE: Project: Plant Yates Phase II
Pace Project No.: 263585

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

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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	

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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	

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:	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	

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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.

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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		

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
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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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

Comments:

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, 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 (1) out of hold (incorrect preservative) out of temp (incorrect containers)

September 28, 2018

Joju Abraham
Georgia Power - Coal Combustion Residuals
2480 Maner Road
Atlanta, GA 30339

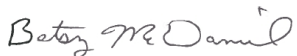
RE: Project: Plant Yates Phase II
Pace Project No.: 269556

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

REPORT OF LABORATORY ANALYSIS

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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			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 22:10	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 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 22:44	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		

REPORT OF LABORATORY ANALYSIS

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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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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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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	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		269556001 Result	Spike Conc.	Spike Conc.	MS Result						
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		

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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

REQUESTED COMPLETION DATE:

PROJECT NAME/STATE: Plant Yates - Phase 2 Facility Wells
 Phase 2 CCR

CONTAINER TYPE	ANALYSIS REQUESTED			CONTAINER TYPE	PRESERVATION	PRESERVATION
	P	P	P			
# of	3	7	3	L	A	B
C				I	D	N
O				U	M	B
N				E	R	
A						
I						
D						
N						
U						
M						
B						
E						
R						

Collection DATE	Collection TIME	MATRIX CODE*	C O R M A P	G	SAMPLE IDENTIFICATION	Metals App, III & IV (EPA 6020/7470)	CI, TI, SO ₄ & TDS (EPA 300.0 & SM 2540C)	Radium 226 & 228 (SW-845 9315/9320)
9-19-18	1035	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	1430	GW	✓		Y6WC-45	1	1	2
9-19-18	1200	GW	✓		Y6WC-46	1	1	2
9-20-18	1355	GW	✓		Y6WC-49	1	1	2
9-20-18	0955	W	✓		EB-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

WO# : 269556



269556

SAMPLED BY AND TITLE: Acc DATE/TIME: 9-20-18 / 1800

RECEIVED BY: John DATE/TIME: 9-20-18 / 0930

RELINQUISHED BY: John DATE/TIME: 9-20-18 / 0930

RELINQUISHED BY: John DATE/TIME: 9-20-18 / 0930

SAMPLE SHIPPED VIA: UPS FEED-EX USPS COURIER CLIENT OTHER FS

Temperature: 14°C Min 14°C Max

PHOTOGRAPHED: Yes No NA Yes No NA Broken Not Present Cooler ID: FS

ENTERED INTO LIMS: Tracking #: 9-20-18 / 0930



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:

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)

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

REPORT OF LABORATORY ANALYSIS

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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	

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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

Sample: Dup-1 **Lab ID: 269557009** Collected: 09/20/18 00:00 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	0.250 ± 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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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:** _____

April 07, 2019

Joju Abraham
Georgia Power - Coal Combustion Residuals
2480 Maner Road
Atlanta, GA 30339

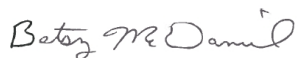
RE: Project: Plant Yates- Pond A
Pace Project No.: 2616762

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- Pond A
Pace Project No.: 2616762

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- Pond A
Pace Project No.: 2616762

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2616762001	YGWC-49	Water	03/28/19 10:30	03/29/19 10:10

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: Plant Yates- Pond A

Pace Project No.: 2616762

Lab ID	Sample ID	Method	Analysts	Analytes Reported
2616762001	YGWC-49	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- Pond A

Pace Project No.: 2616762

Sample: YGWC-49		Lab ID: 2616762001		Collected: 03/28/19 10:30		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 22:43	7440-42-8	
Calcium	11.3J	mg/L	25.0	0.69	50	04/03/19 11:25	04/04/19 22:49	7440-70-2	D3
2540C Total Dissolved Solids		Analytical Method: SM 2540C							
Total Dissolved Solids	164	mg/L	25.0	10.0	1		04/03/19 18:42		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Chloride	4.4	mg/L	0.25	0.024	1		04/05/19 03:15	16887-00-6	
Fluoride	ND	mg/L	0.30	0.029	1		04/05/19 03:15	16984-48-8	
Sulfate	82.8	mg/L	10.0	0.17	10		04/06/19 11:06	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Yates- Pond A
Pace Project No.: 2616762

QC Batch: 25683 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020B MET
Associated Lab Samples: 2616762001

METHOD BLANK: 115845 Matrix: Water
Associated Lab Samples: 2616762001

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		MSD		% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec						
Boron	mg/L	0.89	1	1	1.8	1.8	94	89	75-125	2	20			
Calcium	mg/L	54.2	1	1	58.6	54.4	439	16	75-125	7	20 M6			

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- Pond A

Pace Project No.: 2616762

QC Batch: 25701	Analysis Method: SM 2540C
QC Batch Method: SM 2540C	Analysis Description: 2540C Total Dissolved Solids
Associated Lab Samples: 2616762001	

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	

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- Pond A
Pace Project No.: 2616762

QC Batch: 25766 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 2616762001

METHOD BLANK: 116236 Matrix: Water
Associated Lab Samples: 2616762001

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	2616760001		2616760002		MS		MSD		% Rec Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	% Rec	% Rec					
Chloride	mg/L	1.4	10	10	11.2	11.4	99	100	90-110	1	15		
Fluoride	mg/L	ND	10	10	9.8	9.9	98	99	90-110	1	15		
Sulfate	mg/L	17.7	10	10	26.1	26.2	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

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- Pond A
Pace Project No.: 2616762

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

- | | |
|----|---|
| D3 | Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference. |
| 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- Pond A

Pace Project No.: 2616762

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2616762001	YGWC-49	EPA 3005A	25683	EPA 6020B	25758
2616762001	YGWC-49	SM 2540C	25701		
2616762001	YGWC-49	EPA 300.0	25766		

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

CHAIN OF CUSTODY RECORD

PAGE: 1 OF 1

CLIENT NAME: Georgia Power		ANALYSIS REQUESTED		CONTAINER TYPE		PRESERVATION	
CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER: 241 Ralph McGill Blvd SE B10185 Atlanta, GA 30308 404-506-7239		P P P 3 7		P - PLASTIC A - AMBER GLASS G - CLEAR GLASS V - VOA VIAL S - STERILE O - OTHER		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:	CONTAINERS		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	
REQUESTED COMPLETION DATE:	PO #:	PROJECT NAME/STATE: Plant Yates - Pond A		REMARKS/ADDITIONAL INFORMATION			
PROJECT #:		PROJECT #:					
Collection DATE	Collection TIME	MATRIX CODE	GRA B	SAMPLE IDENTIFICATION			
3/26/19	1030	GW	✓	YGWC-49			
DATE/TIME: 3-29-19 1615		RELINQUISHED BY: <i>[Signature]</i>		DATE/TIME: 3-29-19 1615		LAB #:	
DATE/TIME: 03/29/19 1010		RELINQUISHED BY: <i>[Signature]</i>		DATE/TIME: 03/29/19 1010		Entered into LIMS: Tracking #:	
RECEIVED BY: <i>[Signature]</i>		SAMPLE SHIPPED VIA: <u>USPS</u>		CLIENT: <u>Other FS</u>			
RECEIVED BY LAB: <i>[Signature]</i>		USPS		COURIER			
Temperature: <u>0.5</u> Max		Seal: <u>0.5</u> Broken		# of Containers			
No. <u>168</u>		No. <u>NA</u>		Other FS			

WO#: 2616762

FOR LAB USE ONLY



Sample Condition Upon Receipt

Client Name: GIA Powere

Project # _____

Courier: Fed Ex UPS USPS Client Commercial Pace Other
Tracking #: _____

WO#: **2616762**

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

Cooler Temperature 0.3 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: 03/29/19 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 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: _____

APPENDIX B

AP-A DATA SUMMARY TABLES

**Plant Yates Ash Pond A
Analytical Data Summary**

Substance	MCL/ (SMCL)	Well ID								
		YGWC-49	YGWC-49	YGWC-49	YGWC-49	YGWC-49	YGWC-49	YGWC-49	YGWC-49	
		9/1/2016	11/15/2016	2/27/2017	5/9/2017	7/13/2017	10/11/2017	4/4/2018	9/20/2018	
APPENDIX III	Boron	N/R	ND (0.0113 J)	ND (0.0074 J)	ND	ND	ND (0.0093 J)	ND	ND (0.0041 J)	ND (0.0042 J)
	Calcium	N/R	13.9	13.5	12.5	14.4	14.1	12.4	ND	ND (12.0 J)
	Chloride	(250)	5.3	5.8	4.6	5.3	4.7	5.8	4.3	4.8
	Fluoride	4	ND (0.09 J)	ND (0.16 J)	ND (0.06 J)	ND (0.05 J)	ND	ND (0.14 J)	ND	ND
	Sulfate	(250)	95	94	84	91	88	86	76.5	84.1
	TDS	(500)	228	211	382	154	192	177	174	186
APPENDIX IV	Antimony	0.006	ND	ND	ND (0.0011 J)	ND	ND	ND	ND	ND
	Arsenic	0.01	ND	ND	ND	ND	ND	ND (0.0006 J)	ND	ND (0.0010 J)
	Barium	2	0.0770	0.0772	0.0888	0.0792	0.0839	0.0780	0.074	0.074
	Beryllium	0.004	ND (0.0001 J)	ND (0.0001 J)	ND (0.0001 J)	ND (0.0001 J)	ND (0.0001 J)	ND (0.0001 J)	ND	ND (0.00011 J)
	Cadmium	0.005	ND	ND	ND (0.00007 J)	ND	ND	ND	ND	ND
	Chromium	0.1	ND (0.0013 J)	ND (0.0014 J)	ND (0.0016 J)	ND (0.0017 J)	ND (0.0019 J)	ND (0.0014 J)	ND	ND (0.0017 J)
	Cobalt	N/R	ND	ND (0.0006 J)	ND (0.0008 J)	ND	ND (0.0005 J)	ND (0.0006 J)	ND	ND
	Lead	0.015	ND	ND	ND	ND	ND	ND	ND	ND
	Lithium	N/R	ND (0.0034 J)	ND (0.0044 J)	ND (0.0036 J)	ND (0.0038 J)	ND (0.0036 J)	ND (0.0036 J)	ND (0.0039 J)	ND (0.0036 J)
	Mercury	0.002	ND	ND	ND	ND	ND	ND	ND	ND (0.000061 J)
	Molybdenum	N/R	ND	ND	ND (0.0007 J)	ND	ND	ND	ND	ND
	Radium	5	1.20	0.645 U	0.244 U	0.519 U	0.500 U	1.41	0.442 U	1.14 U
Selenium	0.05	ND (0.0086 J)	ND (0.0056 J)	ND (0.0098 J)	ND (0.0076 J)	ND (0.0093 J)	ND (0.0089 J)	ND	ND (0.0081 J)	
Thallium	0.002	ND	ND	ND (0.00009 J)	ND	ND	ND	ND	ND	

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 analytical method detection limit (MDL).
5. ND (value J) indicates the substance was detected at such low levels that the precision of the laboratory instruments could not produce a reliable value. Therefore, the value displayed (value J) is qualified by the laboratory as an estimated number.
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.

**Plant Yates Ash Pond A
Analytical Data Summary**

Substance	MCL/ (SMCL)	Well ID							
		YGWC-49							
		3/28/2019							
APPENDIX III	Boron	N/R	ND						
	Calcium	N/R	ND (11.3 J)						
	Chloride	(250)	4.4						
	Fluoride	4	ND						
	Sulfate	(250)	82.8						
	TDS	(500)	164						

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 analytical method detection limit (MDL).
5. ND (value J) indicates the substance was detected at such low levels that the precision of the laboratory instruments could not produce a reliable value. Therefore, the value displayed (value J) is qualified by the laboratory as an estimated number.
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.

APPENDIX C

STATISTICAL ANALYSES

AP-3, B-B` 100% ND

Date: 5/13/2019 2:18 PM

Plant Yates Client: Southern Company Data: Yates AP-3, B-B'

Antimony (mg/L)

YGWC-23S, YGWC-33S

Arsenic (mg/L)

YGWC-23S, YGWC-24S

Cadmium (mg/L)

YGWC-24S

Cobalt (mg/L)

YGWC-23S, YGWC-24S

Lead (mg/L)

YGWC-24S

Lithium (mg/L)

YGWC-24S

Mercury (mg/L)

YGWC-24S, YGWC-33S, YGWC-36

Molybdenum (mg/L)

YGWC-23S, YGWC-24S

Selenium (mg/L)

YGWC-24S

Thallium (mg/L)

YGWC-23S, YGWC-24S, YGWC-36

Tolerance Limit

Plant Yates Client: Southern Company Data: Yates Printed 6/28/2019, 10:46 AM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Date</u>	<u>Observ.</u>	<u>Sig.</u>	<u>Bg N</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Antimony (mg/L)	n/a	0.0015	n/a	n/a	n/a	88	93.18	n/a	0.01096	NP Inter(NDs)
Arsenic (mg/L)	n/a	0.0025	n/a	n/a	n/a	104	84.62	n/a	0.004822	NP Inter(NDs)
Barium (mg/L)	n/a	0.0294	n/a	n/a	n/a	104	1.923	n/a	0.004822	NP Inter(normal...
Beryllium (mg/L)	n/a	0.0015	n/a	n/a	n/a	104	87.5	n/a	0.004822	NP Inter(NDs)
Cadmium (mg/L)	n/a	0.00125	n/a	n/a	n/a	104	96.15	n/a	0.004822	NP Inter(NDs)
Cobalt (mg/L)	n/a	0.013	n/a	n/a	n/a	104	77.88	n/a	0.004822	NP Inter(NDs)
Combined Radium 226 + 228 (pCi/L)	n/a	6.92	n/a	n/a	n/a	104	0	n/a	0.004822	NP Inter(normal...
Fluoride (mg/L)	n/a	0.32	n/a	n/a	n/a	112	87.5	n/a	0.003199	NP Inter(NDs)
Lead (mg/L)	n/a	0.0025	n/a	n/a	n/a	88	93.18	n/a	0.01096	NP Inter(NDs)
Lithium (mg/L)	n/a	0.025	n/a	n/a	n/a	101	25.74	n/a	0.005625	NP Inter(normal...
Selenium (mg/L)	n/a	0.005	n/a	n/a	n/a	104	90.38	n/a	0.004822	NP Inter(NDs)
Thallium (mg/L)	n/a	-0.0005	n/a	n/a	n/a	89	100	n/a	0.01041	NP Inter(NDs)

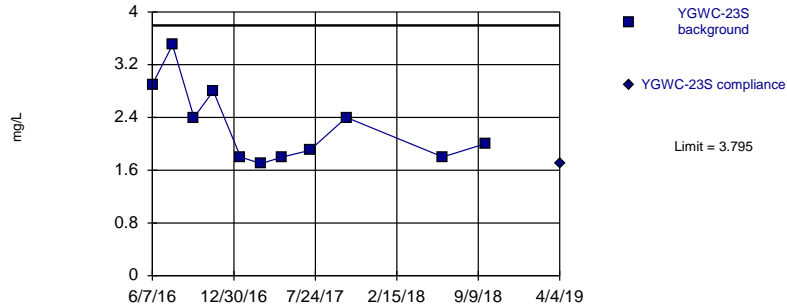
Intrawell Prediction Limit

Plant Yates Client: Southern Company Data: Yates Printed 6/28/2019, 9:39 AM

<u>Constituent</u>	<u>Well</u>	<u>Upper 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-23S	3.795	4/4/2019	1.7	No	11	0	No	0.0009403	Param Intra 1 of 2
Chloride (mg/L)	YGWC-24S	7.124	4/4/2019	5.9	No	11	0	No	0.0009403	Param Intra 1 of 2
Chloride (mg/L)	YGWC-33S	7.736	4/4/2019	5.8	No	11	0	No	0.0009403	Param Intra 1 of 2
Chloride (mg/L)	YGWC-36	7.368	4/4/2019	5.4	No	11	0	No	0.0009403	Param Intra 1 of 2

Within Limit

Prediction Limit
Intrawell Parametric

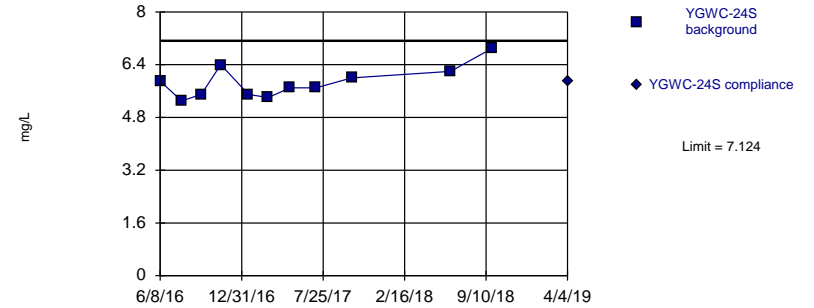


Background Data Summary: Mean=2.273, Std. Dev.=0.585, n=11. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8639, critical = 0.792. Kappa = 2.602 (c=7, w=8, 1 of 2, event alpha = 0.05132). Report alpha = 0.0009403.

Constituent: Chloride Analysis Run 6/28/2019 9:39 AM View: AP-3, B-B' Intrawell PL
Plant Yates Client: Southern Company Data: Yates

Within Limit

Prediction Limit
Intrawell Parametric

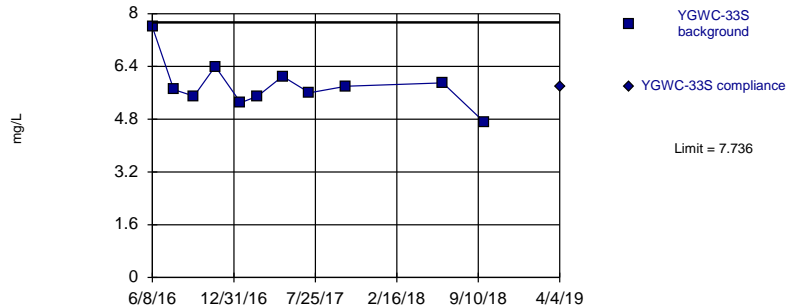


Background Data Summary: Mean=5.864, Std. Dev.=0.4843, n=11. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9228, critical = 0.792. Kappa = 2.602 (c=7, w=8, 1 of 2, event alpha = 0.05132). Report alpha = 0.0009403.

Constituent: Chloride Analysis Run 6/28/2019 9:39 AM View: AP-3, B-B' Intrawell PL
Plant Yates Client: Southern Company Data: Yates

Within Limit

Prediction Limit
Intrawell Parametric

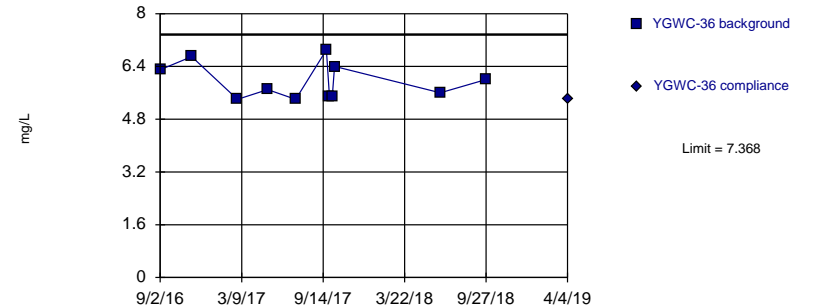


Background Data Summary: Mean=5.827, Std. Dev.=0.7336, n=11. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8957, critical = 0.792. Kappa = 2.602 (c=7, w=8, 1 of 2, event alpha = 0.05132). Report alpha = 0.0009403.

Constituent: Chloride Analysis Run 6/28/2019 9:39 AM View: AP-3, B-B' Intrawell PL
Plant Yates Client: Southern Company Data: Yates

Within Limit

Prediction Limit
Intrawell Parametric



Background Data Summary: Mean=5.945, Std. Dev.=0.5466, n=11. Insufficient data to test for seasonality: data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8749, critical = 0.792. Kappa = 2.602 (c=7, w=8, 1 of 2, event alpha = 0.05132). Report alpha = 0.0009403.

Constituent: Chloride Analysis Run 6/28/2019 9:39 AM View: AP-3, B-B' Intrawell PL
Plant Yates Client: Southern Company Data: Yates

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 6/28/2019 9:40 AM View: AP-3, B-B` Intrawell PL

Plant Yates Client: Southern Company Data: Yates

	YGWC-23S	YGWC-23S
6/7/2016	2.9	
7/28/2016	3.5	
9/20/2016	2.4	
11/8/2016	2.8	
1/16/2017	1.8	
3/9/2017	1.7	
5/2/2017	1.8	
7/10/2017	1.9	
10/11/2017	2.4	
6/12/2018	1.8	
9/27/2018	2	
4/4/2019		1.7

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 6/28/2019 9:40 AM View: AP-3, B-B` Intrawell PL

Plant Yates Client: Southern Company Data: Yates

	YGWC-24S	YGWC-24S
6/8/2016	5.9	
8/1/2016	5.3	
9/20/2016	5.5	
11/8/2016	6.4	
1/17/2017	5.5	
3/8/2017	5.4	
5/2/2017	5.7	
7/7/2017	5.7	
10/5/2017	6	
6/12/2018	6.2	
9/26/2018	6.9	
4/4/2019		5.9

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 6/28/2019 9:40 AM View: AP-3, B-B` Intrawell PL

Plant Yates Client: Southern Company Data: Yates

	YGWC-33S	YGWC-33S
6/8/2016	7.6	
8/1/2016	5.7	
9/21/2016	5.5	
11/14/2016	6.4	
1/17/2017	5.3	
3/1/2017	5.5	
5/3/2017	6.1	
7/10/2017	5.6	
10/11/2017	5.8	
6/12/2018	5.9	
9/26/2018	4.7	
4/4/2019		5.8

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 6/28/2019 9:40 AM View: AP-3, B-B` Intrawell PL

Plant Yates Client: Southern Company Data: Yates

	YGWC-36	YGWC-36
9/2/2016	6.3	
11/14/2016	6.7	
2/28/2017	5.4	
5/9/2017	5.7	
7/13/2017	5.4	
9/22/2017	6.9	
9/29/2017	5.5	
10/6/2017	5.5	
10/11/2017	6.4	
6/13/2018	5.6	
9/26/2018	6	
4/4/2019		5.4

Interwell Prediction Limit

Plant Yates Client: Southern Company Data: Yates Printed 6/28/2019, 10:29 AM

<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-23S	0.05	n/a	4/4/2019	0.6	Yes	90	53.33	n/a	0.0002368	NP Inter (NDs) 1 of 2
Boron (mg/L)	YGWC-33S	0.05	n/a	4/4/2019	15.4	Yes	90	53.33	n/a	0.0002368	NP Inter (NDs) 1 of 2
Boron (mg/L)	YGWC-36	0.05	n/a	4/4/2019	0.22	Yes	90	53.33	n/a	0.0002368	NP Inter (NDs) 1 of 2
Calcium (mg/L)	YGWC-33S	37	n/a	4/4/2019	163	Yes	96	0	n/a	0.0002104	NP Inter (normality) 1 of 2
Fluoride (mg/L)	YGWC-33S	0.32	n/a	4/4/2019	0.57	Yes	112	87.5	n/a	0.000158	NP Inter (NDs) 1 of 2
pH (S.U.)	YGWC-33S	7.67	4.86	4/4/2019	3.88	Yes	112	0	n/a	0.000316	NP Inter (normality) 1 of 2
Sulfate (mg/L)	YGWC-23S	18.27	n/a	4/4/2019	27.9	Yes	96	10.42	x^(1/3)	0.0009403	Param Inter 1 of 2
Sulfate (mg/L)	YGWC-33S	18.27	n/a	4/4/2019	847	Yes	96	10.42	x^(1/3)	0.0009403	Param Inter 1 of 2
Sulfate (mg/L)	YGWC-36	18.27	n/a	4/4/2019	119	Yes	96	10.42	x^(1/3)	0.0009403	Param Inter 1 of 2
Total Dissolved Solids (m...	YGWC-33S	189.8	n/a	4/4/2019	1260	Yes	96	0	sqrt(x)	0.0009403	Param Inter 1 of 2
Total Dissolved Solids (m...	YGWC-36	189.8	n/a	4/4/2019	240	Yes	96	0	sqrt(x)	0.0009403	Param Inter 1 of 2

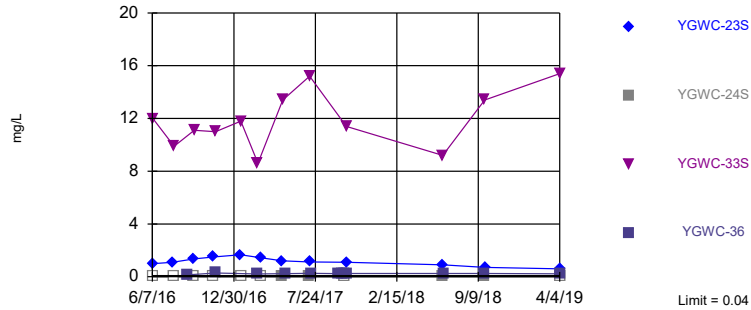
Interwell Prediction Limit

Plant Yates Client: Southern Company Data: Yates Printed 5/13/2019, 2:58 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>Transform</u>	<u>Alpha</u>	<u>Method</u>
Boron (mg/L)	YGWC-23S	0.04	n/a	4/4/2019	0.6	Yes	90	53.33	n/a	0.0002379	NP Inter (NDs) 1 of 2
Boron (mg/L)	YGWC-24S	0.04	n/a	4/4/2019	0.04ND	No	90	53.33	n/a	0.0002379	NP Inter (NDs) 1 of 2
Boron (mg/L)	YGWC-33S	0.04	n/a	4/4/2019	15.4	Yes	90	53.33	n/a	0.0002379	NP Inter (NDs) 1 of 2
Boron (mg/L)	YGWC-36	0.04	n/a	4/4/2019	0.22	Yes	90	53.33	n/a	0.0002379	NP Inter (NDs) 1 of 2
Calcium (mg/L)	YGWC-23S	37	n/a	4/4/2019	3.7	No	96	0	n/a	0.0002113	NP Inter (normality) 1 of 2
Calcium (mg/L)	YGWC-24S	37	n/a	4/4/2019	1.9	No	96	0	n/a	0.0002113	NP Inter (normality) 1 of 2
Calcium (mg/L)	YGWC-33S	37	n/a	4/4/2019	163	Yes	96	0	n/a	0.0002113	NP Inter (normality) 1 of 2
Calcium (mg/L)	YGWC-36	37	n/a	4/4/2019	16.9	No	96	0	n/a	0.0002113	NP Inter (normality) 1 of 2
Fluoride (mg/L)	YGWC-23S	0.32	n/a	4/4/2019	0.049	No	112	87.5	n/a	0.0001585	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	YGWC-24S	0.32	n/a	4/4/2019	0.033	No	112	87.5	n/a	0.0001585	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	YGWC-33S	0.32	n/a	4/4/2019	0.57	Yes	112	87.5	n/a	0.0001585	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	YGWC-36	0.32	n/a	4/4/2019	0.043	No	112	87.5	n/a	0.0001585	NP Inter (NDs) 1 of 2
pH (S.U.)	YGWC-23S	7.67	4.86	4/4/2019	5.64	No	112	0	n/a	0.000317	NP Inter (normality) 1 of 2
pH (S.U.)	YGWC-24S	7.67	4.86	4/4/2019	5.66	No	112	0	n/a	0.000317	NP Inter (normality) 1 of 2
pH (S.U.)	YGWC-33S	7.67	4.86	4/4/2019	3.88	Yes	112	0	n/a	0.000317	NP Inter (normality) 1 of 2
pH (S.U.)	YGWC-36	7.67	4.86	4/4/2019	5.74	No	112	0	n/a	0.000317	NP Inter (normality) 1 of 2
Sulfate (mg/L)	YGWC-23S	16.36	n/a	4/4/2019	27.9	Yes	96	10.42	x^(1/3)	0.00188	Param Inter 1 of 2
Sulfate (mg/L)	YGWC-24S	16.36	n/a	4/4/2019	0.29	No	96	10.42	x^(1/3)	0.00188	Param Inter 1 of 2
Sulfate (mg/L)	YGWC-33S	16.36	n/a	4/4/2019	847	Yes	96	10.42	x^(1/3)	0.00188	Param Inter 1 of 2
Sulfate (mg/L)	YGWC-36	16.36	n/a	4/4/2019	119	Yes	96	10.42	x^(1/3)	0.00188	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	YGWC-23S	179.8	n/a	4/4/2019	85	No	96	0	sqrt(x)	0.00188	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	YGWC-24S	179.8	n/a	4/4/2019	63	No	96	0	sqrt(x)	0.00188	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	YGWC-33S	179.8	n/a	4/4/2019	1260	Yes	96	0	sqrt(x)	0.00188	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	YGWC-36	179.8	n/a	4/4/2019	240	Yes	96	0	sqrt(x)	0.00188	Param Inter 1 of 2

Exceeds Limit: YGWC-23S, YGWC-33S,
YGWC-36

Prediction Limit
Interwell Non-parametric

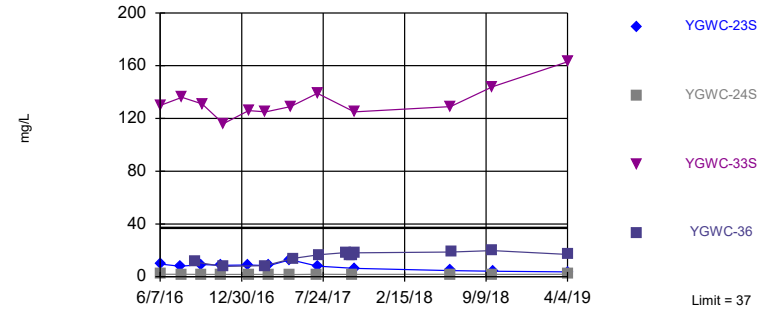


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 90 background values. 53.33% NDs. Annual per-constituent alpha = 0.001902. Individual comparison alpha = 0.0002379 (1 of 2). Comparing 4 points to limit. Seasonality was not detected with 95% confidence.

Constituent: Boron Analysis Run 5/13/2019 2:56 PM View: AP-3, B-B` Interwell PL
Plant Yates Client: Southern Company Data: Yates

Exceeds Limit: YGWC-33S

Prediction Limit
Interwell Non-parametric

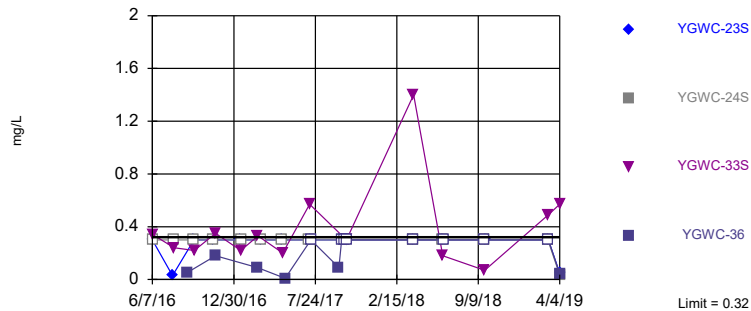


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 96 background values. Annual per-constituent alpha = 0.001689. Individual comparison alpha = 0.0002113 (1 of 2). Comparing 4 points to limit. Seasonality was not detected with 95% confidence.

Constituent: Calcium Analysis Run 5/13/2019 2:56 PM View: AP-3, B-B` Interwell PL
Plant Yates Client: Southern Company Data: Yates

Exceeds Limit: YGWC-33S

Prediction Limit
Interwell Non-parametric

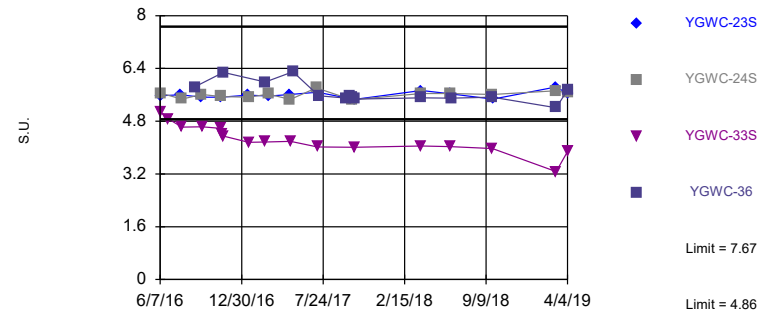


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 112 background values. 87.5% NDs. Annual per-constituent alpha = 0.001267. Individual comparison alpha = 0.0001585 (1 of 2). Comparing 4 points to limit. Seasonality was not detected with 95% confidence.

Constituent: Fluoride Analysis Run 5/13/2019 2:56 PM View: AP-3, B-B` Interwell PL
Plant Yates Client: Southern Company Data: Yates

Exceeds Limits: YGWC-33S

Prediction Limit
Interwell Non-parametric

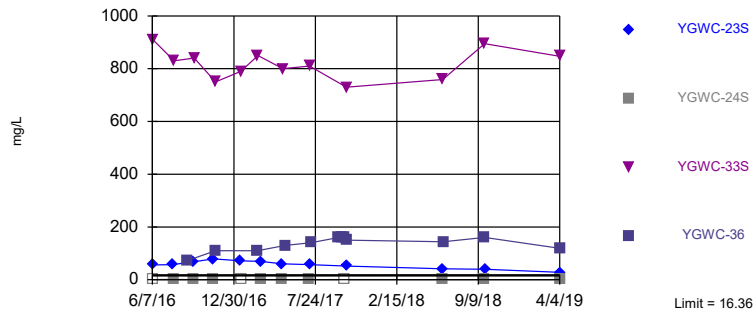


Non-parametric test used in lieu of parametric prediction limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limits are highest and lowest of 112 background values. Annual per-constituent alpha = 0.002535. Individual comparison alpha = 0.000317 (1 of 2). Comparing 4 points to limit. Seasonality was not detected with 95% confidence.

Constituent: pH Analysis Run 5/13/2019 2:57 PM View: AP-3, B-B` Interwell PL
Plant Yates Client: Southern Company Data: Yates

Exceeds Limit: YGWC-23S, YGWC-33S,
 YGWC-36

Prediction Limit
 Interwell Parametric

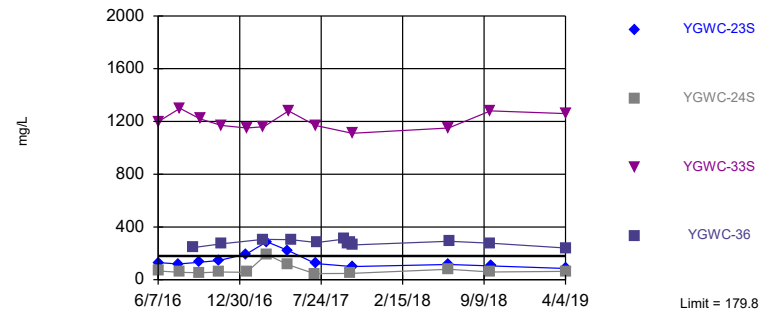


Background Data Summary (based on cube root transformation): Mean=1.5, Std. Dev.=0.5926, n=96, 10.42% NDs. Seasonality was not detected with 95% confidence. Normality test: Shapiro Francia @alpha = 0.01, calculated = 0.9692, critical = 0.965. Kappa = 1.752 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.00188. Comparing 4 points to limit.

Constituent: Sulfate Analysis Run 5/13/2019 2:57 PM View: AP-3, B-B' Interwell PL
 Plant Yates Client: Southern Company Data: Yates

Exceeds Limit: YGWC-33S, YGWC-36

Prediction Limit
 Interwell Parametric



Background Data Summary (based on square root transformation): Mean=9.549, Std. Dev.=2.202, n=96. Seasonality was not detected with 95% confidence. Normality test: Shapiro Francia @alpha = 0.01, calculated = 0.98, critical = 0.965. Kappa = 1.752 (c=7, w=4, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.00188. Comparing 4 points to limit.

Constituent: Total Dissolved Solids Analysis Run 5/13/2019 2:57 PM View: AP-3, B-B' Interwell PL
 Plant Yates Client: Southern Company Data: Yates

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 5/13/2019 2:58 PM View: AP-3, B-B` Interwell PL

Plant Yates Client: Southern Company Data: Yates

	YGWA-5I (bg)	YGWA-4I (bg)	YGWA-18I (bg)	YGWC-23S	YGWA-21I (bg)	YGWA-20S (bg)	YGWC-33S	YGWC-24S	YGWA-5D (bg)
6/2/2016	<0.04	<0.04							<0.05 (o)
6/6/2016			<0.04						
6/7/2016				0.99	<0.04	<0.04			
6/8/2016							12	<0.04	
7/26/2016	<0.04	0.0047 (J)							0.0052 (J)
7/27/2016			<0.04						
7/28/2016				1.09	<0.04 (*)				
8/1/2016							9.89	<0.04 (*)	
9/2/2016									
9/14/2016	0.01 (J)	<0.04							0.0071 (J)
9/16/2016									
9/19/2016			<0.04		<0.04	<0.04			
9/20/2016				1.35				<0.04 (*)	
9/21/2016							11.1		
11/2/2016		<0.04							<0.1 (o)
11/3/2016			<0.04		<0.04				
11/4/2016	<0.04								
11/8/2016				1.5				<0.04 (*)	
11/14/2016							11		
1/11/2017			<0.04						
1/12/2017	<0.04								0.0076 (J)
1/13/2017		<0.04			<0.04	<0.04			
1/16/2017				1.67					
1/17/2017							11.8	<0.04 (*)	
2/28/2017									
3/1/2017			<0.04				8.61		
3/2/2017									
3/6/2017		<0.04			<0.04	<0.04			
3/7/2017	<0.04								0.0089 (J)
3/8/2017								<0.04	
3/9/2017				1.44					
4/26/2017			<0.04		<0.04	<0.04			
5/1/2017		<0.04							0.0061 (J)
5/2/2017	<0.04			1.2				0.0099 (J)	
5/3/2017							13.4		
5/9/2017									
6/27/2017	<0.04								0.0079 (J)
6/28/2017			<0.04						
6/29/2017		<0.04			<0.04	<0.04			
7/7/2017								0.0076 (J)	
7/10/2017				1.12			15.2		
7/13/2017									
9/22/2017									
9/29/2017									
10/3/2017	<0.04				<0.04				0.0094 (J)
10/4/2017									
10/5/2017		<0.04	<0.04					<0.04	
10/6/2017									
10/11/2017				1.09			11.4		
6/5/2018					0.0092 (J)				
6/6/2018						0.0049 (J)			0.0098 (J)
6/7/2018	<0.04	0.0045 (J)	<0.04						

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 5/13/2019 2:58 PM View: AP-3, B-B` Interwell PL
Plant Yates Client: Southern Company Data: Yates

	YGWA-5I (bg)	YGWA-4I (bg)	YGWA-18I (bg)	YGWC-23S	YGWA-21I (bg)	YGWA-20S (bg)	YGWC-33S	YGWC-24S	YGWA-5D (bg)
6/11/2018									
6/12/2018				0.9			9.2	0.018 (J)	
6/13/2018									
9/25/2018			0.0046 (J)		0.0054 (J)	<0.04			
9/26/2018	0.0057 (J)	0.005 (J)					13.4	0.0055 (J)	0.01 (J)
9/27/2018				0.71					
4/2/2019					0.011 (J)				
4/3/2019	0.0044 (J)	0.0055 (J)	<0.04			<0.04			0.0076 (J)
4/4/2019				0.6			15.4	<0.04	

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 5/13/2019 2:58 PM View: AP-3, B-B` Interwell PL
 Plant Yates Client: Southern Company Data: Yates

	YGWA-18S (bg)	YGWA-17S (bg)	YGWC-36
6/2/2016			
6/6/2016	<0.05 (o)		
6/7/2016		<0.05 (o)	
6/8/2016			
7/26/2016			
7/27/2016	0.0059 (J)	0.008 (J)	
7/28/2016			
8/1/2016			
9/2/2016			0.133
9/14/2016			
9/16/2016	0.0079 (J)	0.0086 (J)	
9/19/2016			
9/20/2016			
9/21/2016			
11/2/2016			
11/3/2016	0.0082 (J)	0.0077 (J)	
11/4/2016			
11/8/2016			
11/14/2016			0.287
1/11/2017	0.0096 (J)	0.0092 (J)	
1/12/2017			
1/13/2017			
1/16/2017			
1/17/2017			
2/28/2017			0.215
3/1/2017	<0.04 (o)		
3/2/2017		0.0095 (J)	
3/6/2017			
3/7/2017			
3/8/2017			
3/9/2017			
4/26/2017	0.0091 (J)		
5/1/2017			
5/2/2017		<0.04 (o)	
5/3/2017			
5/9/2017			0.233
6/27/2017			
6/28/2017	0.0079 (J)		
6/29/2017		0.0074 (J)	
7/7/2017			
7/10/2017			
7/13/2017			0.262
9/22/2017			0.238
9/29/2017			0.235
10/3/2017			
10/4/2017	0.009 (J)	0.0077 (J)	
10/5/2017			
10/6/2017			0.256
10/11/2017			0.245
6/5/2018			
6/6/2018			
6/7/2018			

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 5/13/2019 2:58 PM View: AP-3, B-B` Interwell PL
Plant Yates Client: Southern Company Data: Yates

	YGWA-18S (bg)	YGWA-17S (bg)	YGWC-36
6/11/2018	0.0093 (J)	0.01 (J)	
6/12/2018			
6/13/2018			0.25
9/25/2018	0.007 (J)	0.0096 (J)	
9/26/2018			0.24
9/27/2018			
4/2/2019		0.0066 (J)	
4/3/2019	0.0053 (J)		
4/4/2019			0.22

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 5/13/2019 2:58 PM View: AP-3, B-B Interwell PL

Plant Yates Client: Southern Company Data: Yates

	YGWA-4I (bg)	YGWA-5D (bg)	YGWA-5I (bg)	YGWA-18S (bg)	YGWA-18I (bg)	YGWA-17S (bg)	YGWA-20S (bg)	YGWC-23S	YGWA-21I (bg)
6/2/2016	8.8	33	2.4						
6/6/2016				1.4	6.2				
6/7/2016						2.2	2.3	9.6	3.7
6/8/2016									
7/26/2016	7.69	32.3	2.12						
7/27/2016				1.19	4.73	2	2.08		
7/28/2016								7.87	3.15
8/1/2016									
9/2/2016									
9/14/2016	8.49	31	2.18						
9/16/2016				1.5		1.97			
9/19/2016					4.76		1.97		3.17
9/20/2016								9.28	
9/21/2016									
11/2/2016	7.83	30.9					2.13		
11/3/2016				1.31	5.25	1.99			3.4
11/4/2016			2.17 (J)						
11/8/2016								8.6	
11/14/2016									
1/11/2017				1.25	4.74	2.28			
1/12/2017		35.7	2.37						
1/13/2017	8.08						2.45		4.98
1/16/2017								8.85	
1/17/2017									
2/28/2017									
3/1/2017				1.26	5.37				
3/2/2017						2.15			
3/6/2017	8.64						2.48		6.28
3/7/2017		32.7	2.34						
3/8/2017									
3/9/2017								8.4	
4/26/2017				1.05	4.28		2.3		6.65
5/1/2017	13.4	37							
5/2/2017			2.17			1.95		12.9	
5/3/2017									
5/9/2017									
6/27/2017		36.5	2.13						
6/28/2017				1.06	4.95				
6/29/2017	8.81					2.02	2.54		6.04
7/7/2017									
7/10/2017								8.09	
7/13/2017									
9/22/2017									
9/29/2017									
10/3/2017		30.9	2.15						8.28
10/4/2017				1.1		2.03	2.25		
10/5/2017	9.29				5.28				
10/6/2017									
10/11/2017								6.36	
6/5/2018									9.1
6/6/2018		26.2					2.3		
6/7/2018	8.2		2.3		4.8				

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 5/13/2019 2:58 PM View: AP-3, B-B Interwell PL
Plant Yates Client: Southern Company Data: Yates

	YGWC-24S	YGWC-33S	YGWC-36
6/2/2016			
6/6/2016			
6/7/2016			
6/8/2016	1.9	130	
7/26/2016			
7/27/2016			
7/28/2016			
8/1/2016	1.83	136	
9/2/2016			11.2
9/14/2016			
9/16/2016			
9/19/2016			
9/20/2016	1.78		
9/21/2016		131	
11/2/2016			
11/3/2016			
11/4/2016			
11/8/2016	1.77		
11/14/2016		116	7.79
1/11/2017			
1/12/2017			
1/13/2017			
1/16/2017			
1/17/2017	1.7	126	
2/28/2017			8.37
3/1/2017		125	
3/2/2017			
3/6/2017			
3/7/2017			
3/8/2017	1.77		
3/9/2017			
4/26/2017			
5/1/2017			
5/2/2017	1.57		
5/3/2017		129	
5/9/2017			13.9
6/27/2017			
6/28/2017			
6/29/2017			
7/7/2017	1.8		
7/10/2017		139	
7/13/2017			16.6
9/22/2017			18.4
9/29/2017			16.1
10/3/2017			
10/4/2017			
10/5/2017	1.7		
10/6/2017			16.6
10/11/2017		125	18.1
6/5/2018			
6/6/2018			
6/7/2018			

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 5/13/2019 2:58 PM View: AP-3, B-B Interwell PL
Plant Yates Client: Southern Company Data: Yates

	YGWC-24S	YGWC-33S	YGWC-36
6/11/2018			
6/12/2018	1.8	129	
6/13/2018			18.7 (J)
9/25/2018			
9/26/2018	1.7	144	19.8 (J)
9/27/2018			
4/2/2019			
4/3/2019			
4/4/2019	1.9	163	16.9 (J)

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 5/13/2019 2:58 PM View: AP-3, B-B' Interwell PL

Plant Yates Client: Southern Company Data: Yates

	YGWA-5D (bg)	YGWA-4I (bg)	YGWA-5I (bg)	YGWA-18S (bg)	YGWA-18I (bg)	YGWA-21I (bg)	YGWC-23S	YGWA-20S (bg)	YGWA-17S (bg)
6/2/2016	0.11 (J)	<0.3	<0.3						
6/6/2016				<0.3	<0.3				
6/7/2016						<0.3	<0.3	<0.3	<0.3
6/8/2016									
7/26/2016	0.05 (J)	<0.3	<0.3						
7/27/2016				<0.3	<0.3			<0.3	<0.3
7/28/2016						0.02 (J)	0.03 (J)		
8/1/2016									
9/2/2016									
9/14/2016	0.04 (J)	<0.3	<0.3						
9/16/2016				<0.3					<0.3
9/19/2016					<0.3	0.02 (J)		<0.3	
9/20/2016							<0.3		
9/21/2016									
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						
11/8/2016							<0.3		
11/14/2016									
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	
1/16/2017							<0.3		
1/17/2017									
2/28/2017									
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 (*)						
3/8/2017									
3/9/2017							<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		<0.3
5/3/2017									
5/9/2017									
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 (*)
7/7/2017									
7/10/2017							<0.3 (*)		
7/13/2017									
9/22/2017									
9/29/2017									
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				
10/6/2017									
10/11/2017							<0.3		
3/28/2018				<0.3	<0.3				<0.3
3/29/2018	<0.3	<0.3	<0.3			<0.3		<0.3	
3/30/2018							<0.3		

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 5/13/2019 2:58 PM View: AP-3, B-B Interwell PL
Plant Yates Client: Southern Company Data: Yates

	YGWA-5D (bg)	YGWA-4I (bg)	YGWA-5I (bg)	YGWA-18S (bg)	YGWA-18I (bg)	YGWA-21I (bg)	YGWC-23S	YGWA-20S (bg)	YGWA-17S (bg)
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
6/12/2018							<0.3		
6/13/2018									
9/25/2018				<0.3	<0.3	0 (J)		<0.3	<0.3
9/26/2018	<0.3	<0.3	<0.3						
9/27/2018							<0.3		
3/4/2019	0.19 (J)	<0.3	<0.3						
3/5/2019				<0.3		0.32		<0.3	<0.3
3/6/2019					<0.3		<0.3		
4/2/2019						0.12 (J)			<0.3
4/3/2019	0.047 (J)	<0.3	<0.3	<0.3	<0.3			<0.3	
4/4/2019							0.049 (J)		

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 5/13/2019 2:58 PM View: AP-3, B-B' Interwell PL
 Plant Yates Client: Southern Company Data: Yates

	YGWC-24S	YGWC-33S	YGWC-36
6/2/2016			
6/6/2016			
6/7/2016			
6/8/2016	<0.3	0.34	
7/26/2016			
7/27/2016			
7/28/2016			
8/1/2016	<0.3	0.24 (J)	
9/2/2016			0.05 (J)
9/14/2016			
9/16/2016			
9/19/2016			
9/20/2016	<0.3		
9/21/2016		0.22 (J)	
11/2/2016			
11/3/2016			
11/4/2016			
11/8/2016	<0.3 (*)		
11/14/2016		0.35	0.18 (J)
1/11/2017			
1/12/2017			
1/13/2017			
1/16/2017			
1/17/2017	<0.3	0.22 (J)	
2/28/2017			0.09 (J)
3/1/2017		0.33	
3/2/2017			
3/6/2017			
3/7/2017			
3/8/2017	<0.3 (*)		
3/9/2017			
4/26/2017			
5/1/2017			
5/2/2017	<0.3		
5/3/2017		0.2 (J)	
5/9/2017			0.009 (J)
6/27/2017			
6/28/2017			
6/29/2017			
7/7/2017	<0.3		
7/10/2017		0.57	
7/13/2017			<0.3
9/22/2017			0.09 (J)
9/29/2017			<0.3
10/3/2017			
10/4/2017			
10/5/2017	<0.3		
10/6/2017			<0.3
10/11/2017		<0.3 (*)	<0.3 (*)
3/28/2018			
3/29/2018			
3/30/2018	<0.3	1.4	<0.3

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 5/13/2019 2:58 PM View: AP-3, B-B Interwell PL
Plant Yates Client: Southern Company Data: Yates

	YGWC-24S	YGWC-33S	YGWC-36
6/5/2018			
6/6/2018			
6/7/2018			
6/11/2018			
6/12/2018	<0.3	0.18 (J)	
6/13/2018			<0.3
9/25/2018			
9/26/2018	<0.3	0.07 (J)	<0.3
9/27/2018			
3/4/2019			
3/5/2019	<0.3		
3/6/2019		0.49	<0.3
4/2/2019			
4/3/2019			
4/4/2019	0.033 (J)	0.57	0.043 (J)

Prediction Limit

Constituent: pH (S.U.) Analysis Run 5/13/2019 2:58 PM View: AP-3, B-B` Interwell PL

Plant Yates Client: Southern Company Data: Yates

	YGWA-5I (bg)	YGWA-5D (bg)	YGWA-4I (bg)	YGWA-18S (bg)	YGWA-18I (bg)	YGWA-17S (bg)	YGWC-23S	YGWA-21I (bg)	YGWA-20S (bg)
6/2/2016	5.75	7.67	6.36						
6/6/2016				5.71	6.17				
6/7/2016						5.62	5.57	6.1	5.77
6/8/2016									
6/28/2016									
7/26/2016	5.72	7.66	6.22						
7/27/2016				5.46	6.14	5.59			5.79
7/28/2016							5.6	6.12	
8/1/2016									
9/2/2016									
9/14/2016	5.74	7.6	6.23						
9/16/2016						5.58			
9/19/2016				5.59	6.04			6.12	5.73
9/20/2016							5.53		
9/21/2016									
11/2/2016		7.35	6.08						5.67
11/3/2016				5.39	5.97	5.59		6.07	
11/4/2016	5.61								
11/8/2016							5.53		
11/10/2016									
11/14/2016									
1/11/2017				5.48	6.05	5.59			
1/12/2017	5.71	7.49							
1/13/2017			6.19					6.41	5.79
1/16/2017							5.59		
1/17/2017									
2/28/2017									
3/1/2017				5.41	5.94				
3/2/2017						5.54			
3/6/2017			6.2					6.34	5.63
3/7/2017	5.66	7.43							
3/8/2017									
3/9/2017							5.56		
4/26/2017				5.4	5.99			6.32	5.66
5/1/2017		7.22	6.21						
5/2/2017	5.65					5.47	5.61		
5/3/2017									
5/9/2017									
6/27/2017	5.7	7.32							
6/28/2017				5.36	6				
6/29/2017			6.21			5.56		6.47	5.85
7/7/2017									
7/10/2017							5.68		
7/13/2017									
9/22/2017									
9/29/2017									
10/3/2017	5.79	7.48						6.56	
10/4/2017				5.32		5.57			5.83
10/5/2017			6.16		6.11				
10/6/2017									
10/11/2017							5.46		
3/28/2018				5.34	6.1	5.59			

Prediction Limit

Constituent: pH (S.U.) Analysis Run 5/13/2019 2:58 PM View: AP-3, B-B` Interwell PL
Plant Yates Client: Southern Company Data: Yates

	YGWA-5I (bg)	YGWA-5D (bg)	YGWA-4I (bg)	YGWA-18S (bg)	YGWA-18I (bg)	YGWA-17S (bg)	YGWC-23S	YGWA-21I (bg)	YGWA-20S (bg)
3/29/2018	5.63	7.02	6.09					6.75	5.93
3/30/2018							5.73		
6/5/2018								6.09	
6/6/2018		7.43							5.86
6/7/2018	5.63		6.12		5.98				
6/11/2018				5.28		5.58			
6/12/2018							5.63		
6/13/2018									
9/25/2018				4.86	5.81	5.59		6.67	5.84
9/26/2018	5.63	7.13	5.84						
9/27/2018							5.47		
3/4/2019	5.75	7.46	6.18						
3/5/2019				5.26		5.48		7.22	6.07
3/6/2019					5.99		5.84		
4/2/2019						5.74		6.94	
4/3/2019	5.63	7.11	6.43	5.47	6.29				5.71
4/4/2019							5.64		

Prediction Limit

Constituent: pH (S.U.) Analysis Run 5/13/2019 2:58 PM View: AP-3, B-B` Interwell PL
Plant Yates Client: Southern Company Data: Yates

	YGWC-33S	YGWC-24S	YGWC-36
6/2/2016			
6/6/2016			
6/7/2016			
6/8/2016	5.07	5.65	
6/28/2016	4.87		
7/26/2016			
7/27/2016			
7/28/2016			
8/1/2016	4.62	5.47	
9/2/2016			5.84
9/14/2016			
9/16/2016			
9/19/2016			
9/20/2016		5.61	
9/21/2016	4.63		
11/2/2016			
11/3/2016			
11/4/2016			
11/8/2016	4.58	5.55	
11/10/2016	4.42		
11/14/2016	4.35		6.28
1/11/2017			
1/12/2017			
1/13/2017			
1/16/2017			
1/17/2017	4.16	5.53	
2/28/2017			5.99
3/1/2017	4.17		
3/2/2017			
3/6/2017			
3/7/2017			
3/8/2017		5.62	
3/9/2017			
4/26/2017			
5/1/2017			
5/2/2017		5.46	
5/3/2017	4.19		
5/9/2017			6.3
6/27/2017			
6/28/2017			
6/29/2017			
7/7/2017		5.81	
7/10/2017	4.02		
7/13/2017			5.57
9/22/2017			5.5
9/29/2017			5.58
10/3/2017			
10/4/2017			
10/5/2017		5.45	
10/6/2017			5.51
10/11/2017	4.01		5.47
3/28/2018			

Prediction Limit

Constituent: pH (S.U.) Analysis Run 5/13/2019 2:58 PM View: AP-3, B-B` Interwell PL
Plant Yates Client: Southern Company Data: Yates

	YGWC-33S	YGWC-24S	YGWC-36
3/29/2018			
3/30/2018	4.05	5.64	5.51
6/5/2018			
6/6/2018			
6/7/2018			
6/11/2018			
6/12/2018	4.03	5.64	
6/13/2018			5.5
9/25/2018			
9/26/2018	3.97	5.61	5.53
9/27/2018			
3/4/2019			
3/5/2019		5.72	
3/6/2019	3.27		5.21
4/2/2019			
4/3/2019			
4/4/2019	3.88	5.66	5.74

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 5/13/2019 2:58 PM View: AP-3, B-B' Interwell PL

Plant Yates Client: Southern Company Data: Yates

	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-4I (bg)	YGWA-5D (bg)	YGWA-5I (bg)	YGWC-23S
6/2/2016						8	20	1.9	
6/6/2016		1.2	1.8						
6/7/2016	4.4			<1	5.2				56
6/8/2016									
7/26/2016						7.7	20	1.8	
7/27/2016	4.7	1.7	1.9	0.08 (J)					
7/28/2016					5.1				57
8/1/2016									
9/2/2016									
9/14/2016						7.5	19	1.8	
9/16/2016	4.8		1.7						
9/19/2016		1.8		0.08 (J)	4.8				
9/20/2016									68
9/21/2016									
11/2/2016				0.1 (J)		8.2	20		
11/3/2016	5.3	0.69 (J)	1.9		5				
11/4/2016								2	
11/8/2016									79
11/14/2016									
1/11/2017	5.2	<1 (*)	1.7						
1/12/2017							19	1.9	
1/13/2017				<1 (*)	4.3	8.1			
1/16/2017									72
1/17/2017									
2/28/2017									
3/1/2017		1.8	<1 (*)						
3/2/2017	5								
3/6/2017				<1	4.5	8			
3/7/2017							20	2.1	
3/8/2017									
3/9/2017									69
4/26/2017		1.6	1.9	<1	4.9				
5/1/2017						8.4	20		
5/2/2017	5							2	60
5/3/2017									
5/9/2017									
6/27/2017							18	2.1	
6/28/2017		<1 (*)	<1 (*)						
6/29/2017	5.2			<1 (*)	5.5	9.2			
7/7/2017									
7/10/2017									57
7/13/2017									
9/22/2017									
9/29/2017									
10/3/2017					5.8		16	2.3	
10/4/2017	5.3		1.7	<1 (*)					
10/5/2017		1.6				9.6			
10/6/2017									
10/11/2017									52
6/5/2018					6.1				
6/6/2018				0.049 (J)			8.3		
6/7/2018		0.68 (J)				8.5		2	

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 5/13/2019 2:58 PM View: AP-3, B-B' Interwell PL
 Plant Yates Client: Southern Company Data: Yates

	YGWC-24S	YGWC-33S	YGWC-36
6/2/2016			
6/6/2016			
6/7/2016			
6/8/2016	<1	910	
7/26/2016			
7/27/2016			
7/28/2016			
8/1/2016	1.1	830	
9/2/2016			72
9/14/2016			
9/16/2016			
9/19/2016			
9/20/2016	0.38 (J)		
9/21/2016		840	
11/2/2016			
11/3/2016			
11/4/2016			
11/8/2016	0.39 (J)		
11/14/2016		750	110
1/11/2017			
1/12/2017			
1/13/2017			
1/16/2017			
1/17/2017	<1 (*)	790	
2/28/2017			110
3/1/2017		850	
3/2/2017			
3/6/2017			
3/7/2017			
3/8/2017	0.29 (J)		
3/9/2017			
4/26/2017			
5/1/2017			
5/2/2017	0.29 (J)		
5/3/2017		800	
5/9/2017			130
6/27/2017			
6/28/2017			
6/29/2017			
7/7/2017	0.37 (J)		
7/10/2017		810	
7/13/2017			140
9/22/2017			160
9/29/2017			160
10/3/2017			
10/4/2017			
10/5/2017	<1 (*)		
10/6/2017			160
10/11/2017		730	150
6/5/2018			
6/6/2018			
6/7/2018			

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 5/13/2019 2:58 PM View: AP-3, B-B' Interwell PL
Plant Yates Client: Southern Company Data: Yates

	YGWC-24S	YGWC-33S	YGWC-36
6/11/2018			
6/12/2018	0.35 (J)	759	
6/13/2018			144
9/25/2018			
9/26/2018	0.28 (J)	895	160
9/27/2018			
4/2/2019			
4/3/2019			
4/4/2019	0.29 (J)	847	119

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 5/13/2019 2:58 PM View: AP-3, B-B' Interwell

PL Plant Yates Client: Southern Company Data: Yates

	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-4I (bg)	YGWA-5D (bg)	YGWA-5I (bg)	YGWC-23S
6/2/2016						96	160	66	
6/6/2016		120	58						
6/7/2016	28			38	60				130
6/8/2016									
7/26/2016						92	177	78	
7/27/2016	74	94	35	74					
7/28/2016					81				119
8/1/2016									
9/2/2016									
9/14/2016						102	187	73	
9/16/2016	67		35						
9/19/2016		92		45	68				
9/20/2016									132
9/21/2016									
11/2/2016				53		115	181		
11/3/2016	41	104	48		61				
11/4/2016								75	
11/8/2016									146
11/14/2016									
1/11/2017	104	133	95						
1/12/2017							202	86	
1/13/2017				46	76	67			
1/16/2017									194
1/17/2017									
2/28/2017									
3/1/2017		119	79						
3/2/2017	77								
3/6/2017				164	167	159			
3/7/2017							257	108	
3/8/2017									
3/9/2017									288
4/26/2017		162	36	34	50				
5/1/2017						107	165		
5/2/2017	142							103	221
5/3/2017									
5/9/2017									
6/27/2017							189	73	
6/28/2017		98	45						
6/29/2017	53			68	94	79			
7/7/2017									
7/10/2017									123
7/13/2017									
9/22/2017									
9/29/2017									
10/3/2017					149		170	89	
10/4/2017	61		45	54					
10/5/2017		104				95			
10/6/2017									
10/11/2017									100
6/5/2018					109				
6/6/2018				79			151		
6/7/2018		68				90		142	

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 5/13/2019 2:58 PM View: AP-3, B-B' Interwell

PL Plant Yates Client: Southern Company Data: Yates

	YGWC-24S	YGWC-33S	YGWC-36
6/2/2016			
6/6/2016			
6/7/2016			
6/8/2016	66	1200	
7/26/2016			
7/27/2016			
7/28/2016			
8/1/2016	56	1300	
9/2/2016			243
9/14/2016			
9/16/2016			
9/19/2016			
9/20/2016	53		
9/21/2016		1220	
11/2/2016			
11/3/2016			
11/4/2016			
11/8/2016	58		
11/14/2016		1170	272
1/11/2017			
1/12/2017			
1/13/2017			
1/16/2017			
1/17/2017	56	1150	
2/28/2017			306
3/1/2017		1160	
3/2/2017			
3/6/2017			
3/7/2017			
3/8/2017	192		
3/9/2017			
4/26/2017			
5/1/2017			
5/2/2017	113		
5/3/2017		1280	
5/9/2017			303
6/27/2017			
6/28/2017			
6/29/2017			
7/7/2017	46		
7/10/2017		1170	
7/13/2017			282
9/22/2017			309
9/29/2017			273
10/3/2017			
10/4/2017			
10/5/2017	48		
10/6/2017			287
10/11/2017		1110	264
6/5/2018			
6/6/2018			
6/7/2018			

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 5/13/2019 2:58 PM View: AP-3, B-B Interwell
PL Plant Yates Client: Southern Company Data: Yates

	YGWC-24S	YGWC-33S	YGWC-36
6/11/2018			
6/12/2018	79	1150	
6/13/2018			292
9/25/2018			
9/26/2018	59	1280	277
9/27/2018			
4/2/2019			
4/3/2019			
4/4/2019	63	1260	240

Confidence Interval

Plant Yates Client: Southern Company Data: Yates Printed 6/28/2019, 10:00 AM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Compliance</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Beryllium (mg/L)	YGWC-33S	0.023	0.0142	0.004	Yes	12	0	No	0.01	NP (normality)
Cobalt (mg/L)	YGWC-33S	0.02688	0.01358	0.013	Yes	13	0	No	0.01	Param.

Confidence Interval

Plant Yates Client: Southern Company Data: Yates Printed 6/28/2019, 10:00 AM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Compliance</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Antimony (mg/L)	YGWC-23S	0.0015	-0.0015	0.006	No	11	100	No	0.006	NP (NDs)
Antimony (mg/L)	YGWC-24S	0.0015	-0.0015	0.006	No	11	90.91	No	0.006	NP (NDs)
Antimony (mg/L)	YGWC-33S	0.0015	-0.0015	0.006	No	11	100	No	0.006	NP (NDs)
Antimony (mg/L)	YGWC-36	0.0015	0.0004	0.006	No	11	63.64	No	0.006	NP (normality)
Arsenic (mg/L)	YGWC-23S	0.0025	0.00065	0.01	No	13	100	No	0.01	NP (NDs)
Arsenic (mg/L)	YGWC-24S	0.0025	0.00065	0.01	No	13	100	No	0.01	NP (NDs)
Arsenic (mg/L)	YGWC-33S	0.004902	0.002698	0.01	No	13	7.692	No	0.01	Param.
Arsenic (mg/L)	YGWC-36	0.005	-0.0025	0.01	No	13	76.92	No	0.01	NP (NDs)
Barium (mg/L)	YGWC-23S	0.04905	0.0282	2	No	13	0	No	0.01	Param.
Barium (mg/L)	YGWC-24S	0.01984	0.01886	2	No	13	0	No	0.01	Param.
Barium (mg/L)	YGWC-33S	0.01845	0.01111	2	No	13	7.692	sqrt(x)	0.01	Param.
Barium (mg/L)	YGWC-36	0.04769	0.03521	2	No	13	0	x^2	0.01	Param.
Beryllium (mg/L)	YGWC-23S	0.0015	0.000072	0.004	No	13	38.46	No	0.01	NP (normality)
Beryllium (mg/L)	YGWC-24S	0.00125	0.0001	0.004	No	13	23.08	No	0.01	NP (normality)
Beryllium (mg/L)	YGWC-33S	0.023	0.0142	0.004	Yes	12	0	No	0.01	NP (normality)
Beryllium (mg/L)	YGWC-36	0.0003234	0.0002349	0.004	No	12	0	x^3	0.01	Param.
Cadmium (mg/L)	YGWC-23S	0.00125	0.00007	0.005	No	13	92.31	No	0.01	NP (NDs)
Cadmium (mg/L)	YGWC-24S	0.00125	-0.0005	0.005	No	13	100	No	0.01	NP (NDs)
Cadmium (mg/L)	YGWC-33S	0.003165	0.002214	0.005	No	13	0	x^2	0.01	Param.
Cadmium (mg/L)	YGWC-36	0.0002	0.00015	0.005	No	9	0	No	0.002	NP (normality)
Cobalt (mg/L)	YGWC-23S	0.005	0.00125	0.013	No	13	100	No	0.01	NP (NDs)
Cobalt (mg/L)	YGWC-24S	0.005	0.00125	0.013	No	13	100	No	0.01	NP (NDs)
Cobalt (mg/L)	YGWC-33S	0.02688	0.01358	0.013	Yes	13	0	No	0.01	Param.
Cobalt (mg/L)	YGWC-36	0.005	0.0006	0.013	No	13	92.31	No	0.01	NP (NDs)
Combined Radium 226 + 228 (pCi/L)	YGWC-23S	0.8968	0.2629	6.92	No	13	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	YGWC-24S	0.8214	0.4161	6.92	No	13	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	YGWC-33S	1.445	0.6257	6.92	No	13	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	YGWC-36	1.112	0.4969	6.92	No	13	0	No	0.01	Param.
Fluoride (mg/L)	YGWC-23S	0.15	0.049	4	No	14	85.71	No	0.01	NP (NDs)
Fluoride (mg/L)	YGWC-24S	0.15	0.1	4	No	14	92.86	No	0.01	NP (NDs)
Fluoride (mg/L)	YGWC-33S	0.5426	0.1761	4	No	14	7.143	sqrt(x)	0.01	Param.
Fluoride (mg/L)	YGWC-36	0.18	0.043	4	No	14	57.14	No	0.01	NP (normality)
Lead (mg/L)	YGWC-23S	0.0025	-0.0025	0.015	No	11	90.91	No	0.006	NP (NDs)
Lead (mg/L)	YGWC-24S	0.0025	-0.0025	0.015	No	11	100	No	0.006	NP (NDs)
Lead (mg/L)	YGWC-33S	0.0025	0.0005	0.015	No	11	27.27	No	0.006	NP (Cohens/xfrm)
Lead (mg/L)	YGWC-36	0.0017	-0.0025	0.015	No	11	18.18	No	0.006	NP (normality)
Lithium (mg/L)	YGWC-23S	0.0025	0.0017	0.025	No	12	0	No	0.01	NP (normality)
Lithium (mg/L)	YGWC-24S	0.025	0.0025	0.025	No	13	100	No	0.01	NP (NDs)
Lithium (mg/L)	YGWC-33S	0.02904	0.01765	0.025	No	13	0	No	0.01	Param.
Lithium (mg/L)	YGWC-36	0.006542	0.004945	0.025	No	13	0	x^2	0.01	Param.
Selenium (mg/L)	YGWC-23S	0.04349	0.02662	0.05	No	13	0	No	0.01	Param.
Selenium (mg/L)	YGWC-24S	0.005	0.00065	0.05	No	13	100	No	0.01	NP (NDs)
Selenium (mg/L)	YGWC-33S	0.01501	0.007693	0.05	No	13	7.692	No	0.01	Param.
Selenium (mg/L)	YGWC-36	0.005	0.0017	0.05	No	13	23.08	No	0.01	NP (normality)
Thallium (mg/L)	YGWC-23S	0.0005	-0.0005	0.002	No	11	100	No	0.006	NP (NDs)
Thallium (mg/L)	YGWC-24S	0.0005	-0.0005	0.002	No	11	100	No	0.006	NP (NDs)
Thallium (mg/L)	YGWC-33S	0.0005	0.00006	0.002	No	11	36.36	No	0.006	NP (Cohens/xfrm)
Thallium (mg/L)	YGWC-36	0.0005	-0.0005	0.002	No	11	100	No	0.006	NP (NDs)

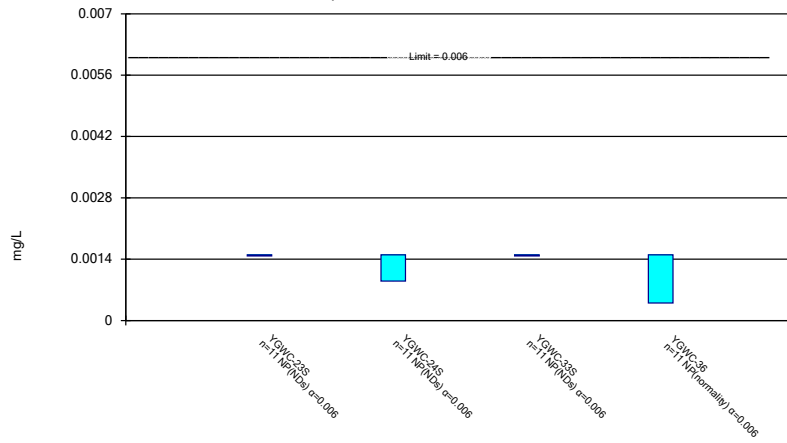
Confidence Interval

Plant Yates Client: Southern Company Data: Yates Printed 5/13/2019, 5:09 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Compliance</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Antimony (mg/L)	YGWC-23S	0.0015	0.0015	0.006	No	11	100	No	0.006	NP (NDs)
Antimony (mg/L)	YGWC-24S	0.0015	0.0009	0.006	No	11	90.91	No	0.006	NP (NDs)
Antimony (mg/L)	YGWC-33S	0.0015	0.0015	0.006	No	11	100	No	0.006	NP (NDs)
Antimony (mg/L)	YGWC-36	0.0015	0.0004	0.006	No	11	63.64	No	0.006	NP (normality)
Arsenic (mg/L)	YGWC-23S	0.0025	0.0025	0.01	No	13	100	No	0.01	NP (NDs)
Arsenic (mg/L)	YGWC-24S	0.0025	0.0025	0.01	No	13	100	No	0.01	NP (NDs)
Arsenic (mg/L)	YGWC-33S	0.004902	0.002698	0.01	No	13	7.692	No	0.01	Param.
Arsenic (mg/L)	YGWC-36	0.0025	0.00066	0.01	No	13	76.92	No	0.01	NP (NDs)
Barium (mg/L)	YGWC-23S	0.04905	0.0282	2	No	13	0	No	0.01	Param.
Barium (mg/L)	YGWC-24S	0.01984	0.01886	2	No	13	0	No	0.01	Param.
Barium (mg/L)	YGWC-33S	0.01845	0.01111	2	No	13	7.692	sqrt(x)	0.01	Param.
Barium (mg/L)	YGWC-36	0.04769	0.03521	2	No	13	0	x^2	0.01	Param.
Beryllium (mg/L)	YGWC-23S	0.0015	0.00072	0.004	No	13	38.46	No	0.01	NP (normality)
Beryllium (mg/L)	YGWC-24S	0.0015	0.0001	0.004	No	13	23.08	No	0.01	NP (normality)
Beryllium (mg/L)	YGWC-33S	0.023	0.0142	0.004	Yes	12	0	No	0.01	NP (normality)
Beryllium (mg/L)	YGWC-36	0.0003234	0.0002349	0.004	No	12	0	x^3	0.01	Param.
Cadmium (mg/L)	YGWC-23S	0.0005	0.00007	0.005	No	13	92.31	No	0.01	NP (NDs)
Cadmium (mg/L)	YGWC-24S	0.0005	0.0005	0.005	No	13	100	No	0.01	NP (NDs)
Cadmium (mg/L)	YGWC-33S	0.003165	0.002214	0.005	No	13	0	x^2	0.01	Param.
Cadmium (mg/L)	YGWC-36	0.0002	0.00015	0.005	No	9	0	No	0.002	NP (normality)
Cobalt (mg/L)	YGWC-23S	0.005	0.005	0.013	No	13	100	No	0.01	NP (NDs)
Cobalt (mg/L)	YGWC-24S	0.005	0.005	0.013	No	13	100	No	0.01	NP (NDs)
Cobalt (mg/L)	YGWC-33S	0.02688	0.01358	0.013	Yes	13	0	No	0.01	Param.
Cobalt (mg/L)	YGWC-36	0.005	0.0006	0.013	No	13	92.31	No	0.01	NP (NDs)
Combined Radium 226 + 228 (pCi/L)	YGWC-23S	0.8968	0.2629	6.92	No	13	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	YGWC-24S	0.8214	0.4161	6.92	No	13	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	YGWC-33S	1.445	0.6257	6.92	No	13	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	YGWC-36	1.112	0.4969	6.92	No	13	0	No	0.01	Param.
Fluoride (mg/L)	YGWC-23S	0.15	0.049	4	No	14	85.71	No	0.01	NP (NDs)
Fluoride (mg/L)	YGWC-24S	0.15	0.033	4	No	14	92.86	No	0.01	NP (NDs)
Fluoride (mg/L)	YGWC-33S	0.5426	0.1761	4	No	14	7.143	sqrt(x)	0.01	Param.
Fluoride (mg/L)	YGWC-36	0.18	0.05	4	No	14	57.14	No	0.01	NP (normality)
Lead (mg/L)	YGWC-23S	0.0025	0.00044	0.015	No	11	90.91	No	0.006	NP (NDs)
Lead (mg/L)	YGWC-24S	0.0025	0.0025	0.015	No	11	100	No	0.006	NP (NDs)
Lead (mg/L)	YGWC-33S	0.004567	0.0007647	0.015	No	11	27.27	No	0.01	Param.
Lead (mg/L)	YGWC-36	0.0025	0.0002	0.015	No	11	18.18	No	0.006	NP (normality)
Lithium (mg/L)	YGWC-23S	0.0025	0.0017	0.025	No	12	0	No	0.01	NP (normality)
Lithium (mg/L)	YGWC-24S	0.025	0.025	0.025	No	13	100	No	0.01	NP (NDs)
Lithium (mg/L)	YGWC-33S	0.02904	0.01765	0.025	No	13	0	No	0.01	Param.
Lithium (mg/L)	YGWC-36	0.006542	0.004945	0.025	No	13	0	x^2	0.01	Param.
Selenium (mg/L)	YGWC-23S	0.04349	0.02662	0.05	No	13	0	No	0.01	Param.
Selenium (mg/L)	YGWC-24S	0.005	0.005	0.05	No	13	100	No	0.01	NP (NDs)
Selenium (mg/L)	YGWC-33S	0.01501	0.007693	0.05	No	13	7.692	No	0.01	Param.
Selenium (mg/L)	YGWC-36	0.007754	0.001566	0.05	No	13	23.08	No	0.01	Param.
Thallium (mg/L)	YGWC-23S	0.0005	0.0005	0.002	No	11	100	No	0.006	NP (NDs)
Thallium (mg/L)	YGWC-24S	0.0005	0.0005	0.002	No	11	100	No	0.006	NP (NDs)
Thallium (mg/L)	YGWC-33S	0.001114	0.0001451	0.002	No	11	36.36	No	0.01	Param.
Thallium (mg/L)	YGWC-36	0.0005	0.0005	0.002	No	11	100	No	0.006	NP (NDs)

Non-Parametric Confidence Interval

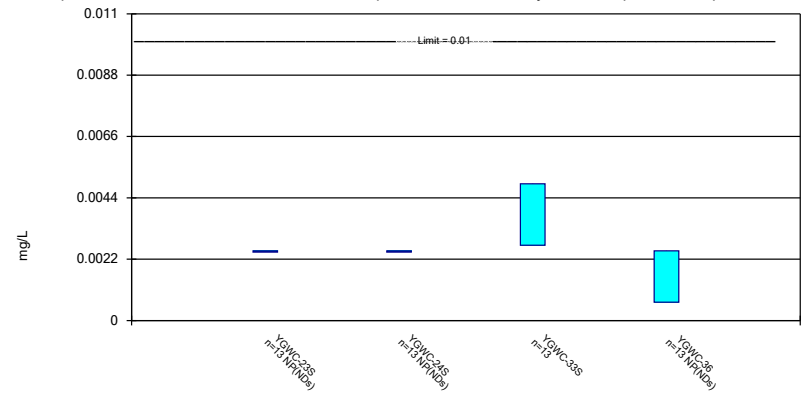
Compliance Limit is not exceeded.



Constituent: Antimony Analysis Run 5/13/2019 5:07 PM View: AP-3, B-B' Confidence Interval
Plant Yates Client: Southern Company Data: Yates

Parametric and Non-Parametric (NP) Confidence Interval

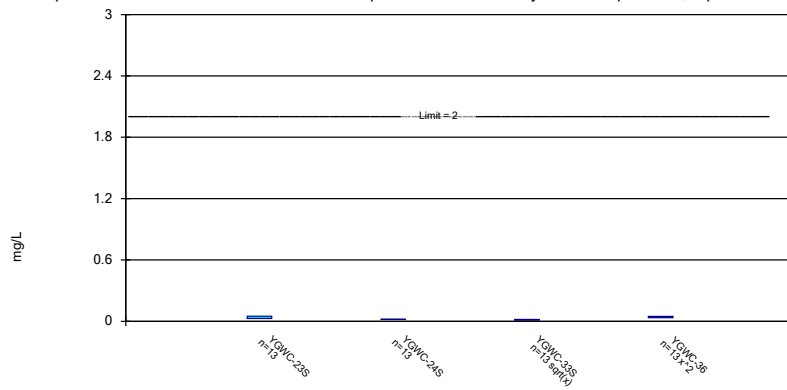
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Arsenic Analysis Run 5/13/2019 5:07 PM View: AP-3, B-B' Confidence Interval
Plant Yates Client: Southern Company Data: Yates

Parametric Confidence Interval

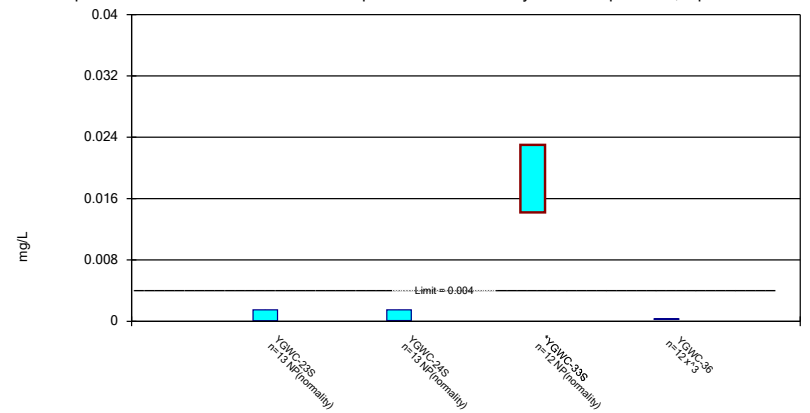
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Barium Analysis Run 5/13/2019 5:07 PM View: AP-3, B-B' Confidence Interval
Plant Yates Client: Southern Company Data: Yates

Parametric and Non-Parametric (NP) Confidence Interval

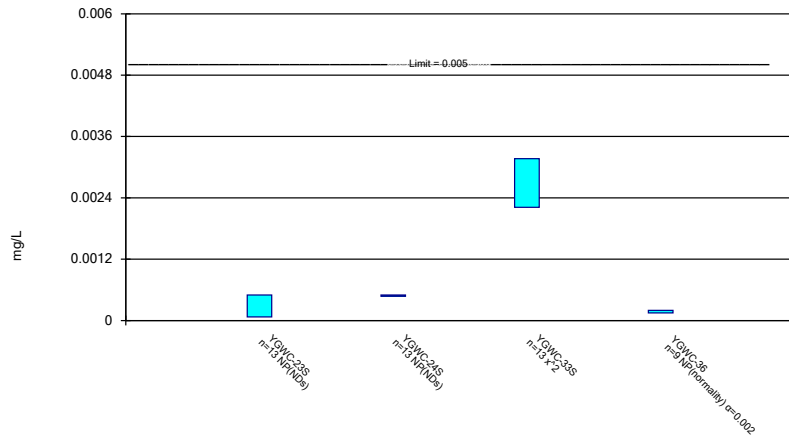
Compliance limit is exceeded.* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Beryllium Analysis Run 5/13/2019 5:07 PM View: AP-3, B-B' Confidence Interval
Plant Yates Client: Southern Company Data: Yates

Parametric and Non-Parametric (NP) Confidence Interval

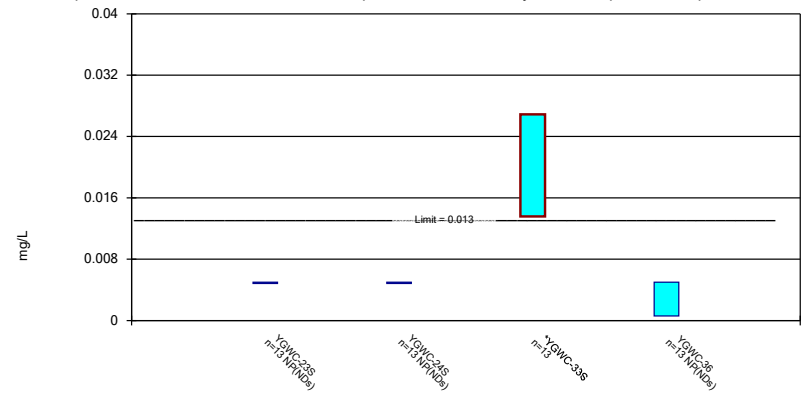
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Cadmium Analysis Run 5/13/2019 5:07 PM View: AP-3, B-B' Confidence Interval
Plant Yates Client: Southern Company Data: Yates

Parametric and Non-Parametric (NP) Confidence Interval

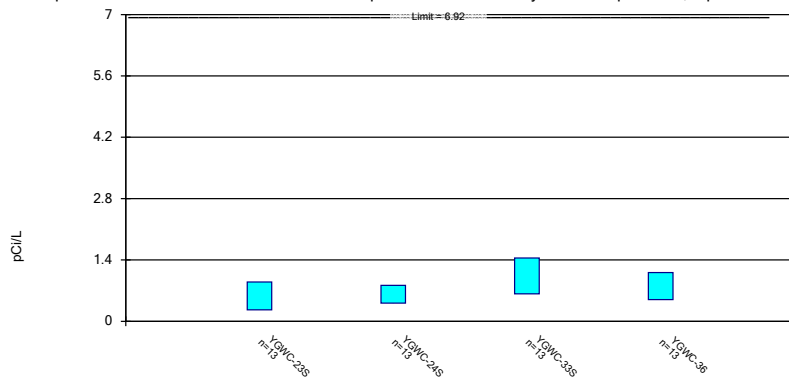
Compliance limit is exceeded.* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Cobalt Analysis Run 5/13/2019 5:07 PM View: AP-3, B-B' Confidence Interval
Plant Yates Client: Southern Company Data: Yates

Parametric Confidence Interval

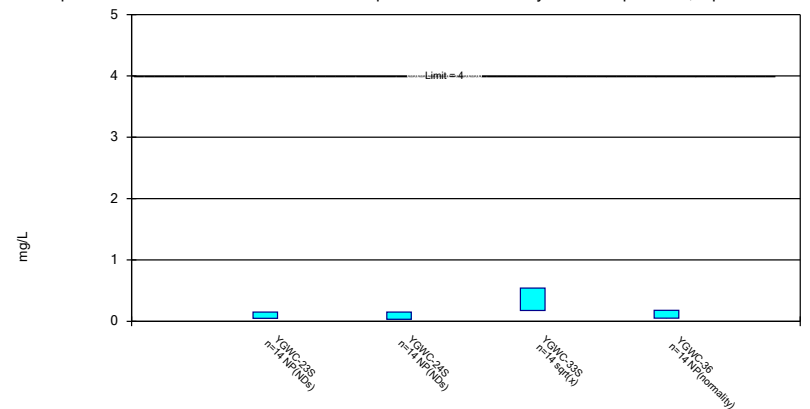
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Combined Radium 226 + 228 Analysis Run 5/13/2019 5:07 PM View: AP-3, B-B' Confidence Interval
Plant Yates Client: Southern Company Data: Yates

Parametric and Non-Parametric (NP) Confidence Interval

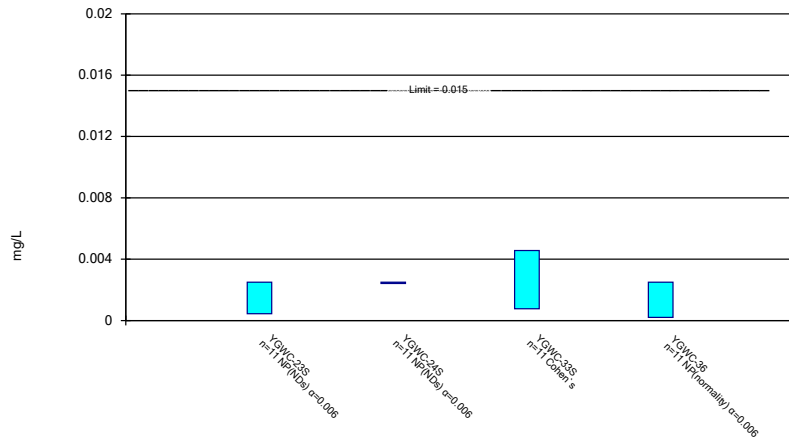
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Fluoride Analysis Run 5/13/2019 5:07 PM View: AP-3, B-B' Confidence Interval
Plant Yates Client: Southern Company Data: Yates

Parametric and Non-Parametric (NP) Confidence Interval

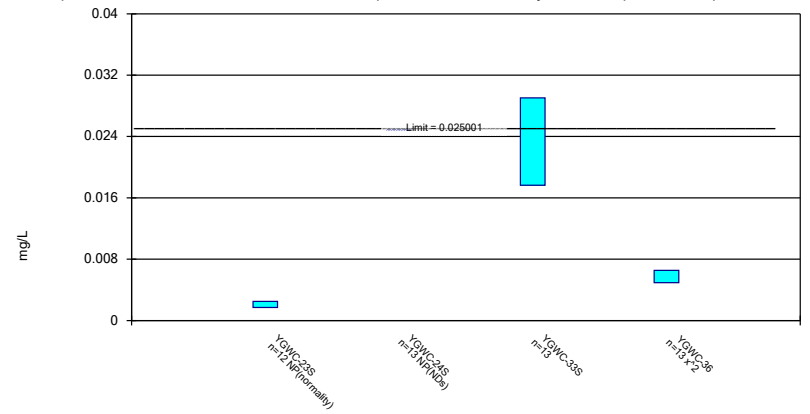
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Lead Analysis Run 5/13/2019 5:07 PM View: AP-3, B-B` Confidence Interval
Plant Yates Client: Southern Company Data: Yates

Parametric and Non-Parametric (NP) Confidence Interval

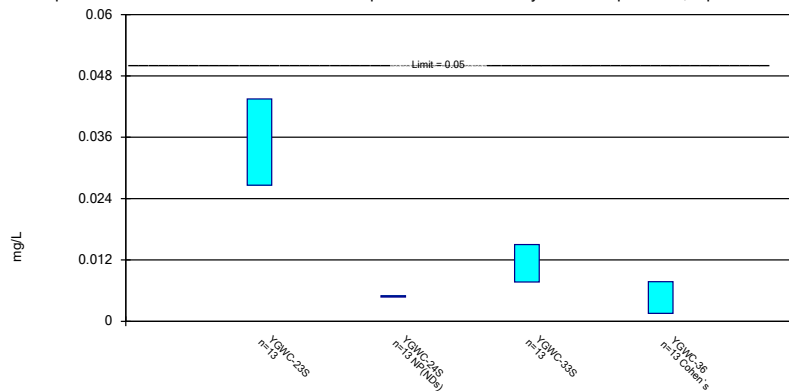
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Lithium Analysis Run 5/13/2019 5:07 PM View: AP-3, B-B` Confidence Interval
Plant Yates Client: Southern Company Data: Yates

Parametric and Non-Parametric (NP) Confidence Interval

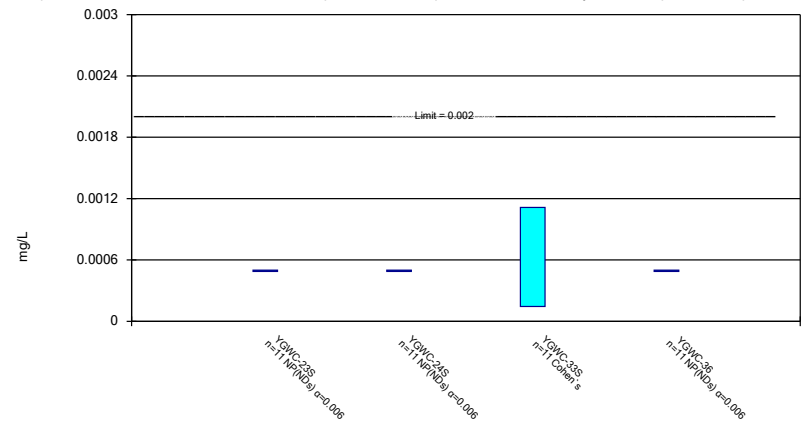
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Selenium Analysis Run 5/13/2019 5:07 PM View: AP-3, B-B` Confidence Interval
Plant Yates Client: Southern Company Data: Yates

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Thallium Analysis Run 5/13/2019 5:07 PM View: AP-3, B-B` Confidence Interval
Plant Yates Client: Southern Company Data: Yates

Confidence Interval

Constituent: Antimony (mg/L) Analysis Run 5/13/2019 5:09 PM View: AP-3, B-B` Confidence
Interval Plant Yates Client: Southern Company Data: Yates

	YGWC-23S	YGWC-24S	YGWC-33S	YGWC-36
6/7/2016	<0.003			
6/8/2016		<0.003	<0.003	
7/28/2016	<0.003			
8/1/2016		<0.003	<0.003 (*)	
9/2/2016				<0.003
9/20/2016	<0.003	0.0009 (J)		
9/21/2016			<0.003	
11/8/2016	<0.003	<0.003		
11/14/2016			<0.003	0.0014 (J)
1/16/2017	<0.003			
1/17/2017		<0.003	<0.003	
2/28/2017				0.0004 (J)
3/1/2017			<0.003	
3/8/2017		<0.003		
3/9/2017	<0.003			
5/2/2017	<0.003	<0.003		
5/3/2017			<0.003	
5/9/2017				<0.003
7/7/2017		<0.003		
7/10/2017	<0.003		<0.003	
7/13/2017				<0.003
9/22/2017				<0.003
9/29/2017				<0.003
10/6/2017				<0.003
3/30/2018	<0.003	<0.003	<0.003	<0.003
3/5/2019		<0.003		
3/6/2019	<0.003		<0.003	0.0011 (J)
4/4/2019	<0.003	<0.003	<0.003	0.0041
Mean	0.0015	0.001445	0.0015	0.001591
Std. Dev.	0	0.0001809	0	0.0008972
Upper Lim.	0.0015	0.0015	0.0015	0.0015
Lower Lim.	0.0015	0.0009	0.0015	0.0004

Confidence Interval

Constituent: Arsenic (mg/L) Analysis Run 5/13/2019 5:09 PM View: AP-3, B-B' Confidence Interval
 Plant Yates Client: Southern Company Data: Yates

	YGWC-23S	YGWC-24S	YGWC-33S	YGWC-36
6/7/2016	<0.005			
6/8/2016		<0.005	0.0033	
7/28/2016	<0.005			
8/1/2016		<0.005	0.007	
9/2/2016				<0.005
9/20/2016	<0.005	<0.005		
9/21/2016			0.0054	
11/8/2016	<0.005	<0.005		
11/14/2016			<0.005	<0.005
1/16/2017	<0.005			
1/17/2017		<0.005	0.0027 (J)	
2/28/2017				0.0006 (J)
3/1/2017			0.0041 (J)	
3/8/2017		<0.005		
3/9/2017	<0.005			
5/2/2017	<0.005 (*)	<0.005 (*)		
5/3/2017			0.0037 (J)	
5/9/2017				0.0006 (J)
7/7/2017		<0.005		
7/10/2017	<0.005		0.0044 (J)	
7/13/2017				<0.005
9/22/2017				<0.005
9/29/2017				<0.005
10/6/2017				<0.005
3/30/2018	<0.005	<0.005	0.0049 (J)	<0.005
6/12/2018	<0.005	<0.005	0.002 (J)	
6/13/2018				0.00066 (J)
9/26/2018		<0.005	0.0048 (J)	<0.005
9/27/2018	<0.005			
3/5/2019		<0.005		
3/6/2019	<0.005		0.0022 (J)	<0.005
4/4/2019	<0.005	<0.005	0.0024 (J)	<0.005
Mean	0.0025	0.0025	0.0038	0.002066
Std. Dev.	0	0	0.001483	0.0008246
Upper Lim.	0.0025	0.0025	0.004902	0.0025
Lower Lim.	0.0025	0.0025	0.002698	0.00066

Confidence Interval

Constituent: Barium (mg/L) Analysis Run 5/13/2019 5:09 PM View: AP-3, B-B' Confidence Interval
 Plant Yates Client: Southern Company Data: Yates

	YGWC-23S	YGWC-24S	YGWC-33S	YGWC-36
6/7/2016	0.045			
6/8/2016		0.02	0.029	
7/28/2016	0.0511			
8/1/2016		0.02	0.02	
9/2/2016				0.0409
9/20/2016	0.0561	0.0203		
9/21/2016			0.0183	
11/8/2016	0.054	0.0191		
11/14/2016			0.0149	0.0182
1/16/2017	0.0528			
1/17/2017		0.0192	<0.0139 (*)	
2/28/2017				0.023
3/1/2017			0.0142	
3/8/2017		0.0189		
3/9/2017	0.0469			
5/2/2017	0.0427	0.019		
5/3/2017			0.0151	
5/9/2017				0.0349
7/7/2017		0.019		
7/10/2017	0.0395		0.0137	
7/13/2017				0.0484
9/22/2017				0.0491
9/29/2017				0.0452
10/6/2017				0.0508
3/30/2018	0.03	0.02	0.012	0.043
6/12/2018	0.024	0.018	0.012	
6/13/2018				0.046
9/26/2018		0.019	0.012	0.048
9/27/2018	0.022			
3/5/2019		0.019		
3/6/2019	0.019		0.012	0.041
4/4/2019	0.019	0.02	0.014	0.042
Mean	0.03862	0.01935	0.01493	0.04081
Std. Dev.	0.01402	0.0006578	0.005291	0.009973
Upper Lim.	0.04905	0.01984	0.01845	0.04769
Lower Lim.	0.0282	0.01886	0.01111	0.03521

Confidence Interval

Constituent: Beryllium (mg/L) Analysis Run 5/13/2019 5:09 PM View: AP-3, B-B` Confidence

Interval Plant Yates Client: Southern Company Data: Yates

	YGWC-23S	YGWC-24S	YGWC-33S	YGWC-36
6/7/2016	<0.003			
6/8/2016		<0.003	0.012	
7/28/2016	<0.003			
8/1/2016		0.0001 (J)	0.0146	
9/2/2016				0.0003 (J)
9/20/2016	0.0001 (J)	0.0001 (J)		
9/21/2016			0.0149	
11/8/2016	<0.003 (*)	<0.003 (*)		
11/14/2016			0.0152	9E-05 (J)
1/16/2017	0.0001 (J)			
1/17/2017		0.0001 (J)	0.0142	
2/28/2017				0.0001 (J)
3/1/2017			0.015	
3/8/2017		0.0001 (J)		
3/9/2017	0.0001 (J)			
5/2/2017	9E-05 (J)	0.0001 (J)		
5/3/2017			0.0154	
5/9/2017				0.0002 (J)
7/7/2017		0.0001 (J)		
7/10/2017	<0.003		0.0143	
7/13/2017				0.0003 (J)
9/22/2017				0.0003 (J)
9/29/2017				0.0003 (J)
10/6/2017				0.0003 (J)
3/30/2018	<0.003	<0.003	0.018	<0.003 (o)
6/12/2018	8.1E-05 (J)	0.00012 (J)	0.016	
6/13/2018				0.00035 (J)
9/26/2018		0.00014 (J)	0.024 (o)	0.00032 (J)
9/27/2018	9E-05 (J)			
3/5/2019		0.00016 (J)		
3/6/2019	6.6E-05 (J)		0.023	0.00029 (J)
4/4/2019	7.2E-05 (J)	0.00015 (J)	0.025	0.00033 (J)
Mean	0.0006307	0.0004362	0.01647	0.000265
Std. Dev.	0.0007154	0.0006068	0.003798	8.702E-05
Upper Lim.	0.0015	0.0015	0.023	0.0003234
Lower Lim.	7.2E-05	0.0001	0.0142	0.0002349

Confidence Interval

Constituent: Cadmium (mg/L) Analysis Run 5/13/2019 5:09 PM View: AP-3, B-B` Confidence
Interval Plant Yates Client: Southern Company Data: Yates

	YGWC-23S	YGWC-24S	YGWC-33S	YGWC-36
6/7/2016	<0.001			
6/8/2016		<0.001	0.00098 (J)	
7/28/2016	<0.001			
8/1/2016		<0.001	0.0014	
9/2/2016				<0.001 (o)
9/20/2016	<0.001	<0.001		
9/21/2016			0.0017	
11/8/2016	7E-05 (J)	<0.001		
11/14/2016			0.0027	9E-05 (J,o)
1/16/2017	<0.001			
1/17/2017		<0.001	0.0033	
2/28/2017				0.0001 (J,o)
3/1/2017			0.0031	
3/8/2017		<0.001		
3/9/2017	<0.001			
5/2/2017	<0.001	<0.001		
5/3/2017			0.0031	
5/9/2017				0.0002 (J)
7/7/2017		<0.001		
7/10/2017	<0.001		0.0029	
7/13/2017				0.0002 (J)
9/22/2017				0.0002 (J)
9/29/2017				0.0002 (J)
10/6/2017				0.0002 (J)
3/30/2018	<0.001	<0.001	0.0028	<0.001 (o)
6/12/2018	<0.001	<0.001	0.0029	
6/13/2018				0.00019 (J)
9/26/2018		<0.001	0.0028	0.00018 (J)
9/27/2018	<0.001			
3/5/2019		<0.001		
3/6/2019	<0.001		0.003	0.00015 (J)
4/4/2019	<0.001	<0.001	0.0035	0.00019 (J)
Mean	0.0004669	0.0005	0.002629	0.00019
Std. Dev.	0.0001193	0	0.0007688	1.658E-05
Upper Lim.	0.0005	0.0005	0.003165	0.0002
Lower Lim.	7E-05	0.0005	0.002214	0.00015

Confidence Interval

Constituent: Cobalt (mg/L) Analysis Run 5/13/2019 5:09 PM View: AP-3, B-B' Confidence Interval

Plant Yates Client: Southern Company Data: Yates

	YGWC-23S	YGWC-24S	YGWC-33S	YGWC-36
6/7/2016	<0.01			
6/8/2016		<0.01	0.037	
7/28/2016	<0.01			
8/1/2016		<0.01	0.0297	
9/2/2016				0.0006 (J)
9/20/2016	<0.01	<0.01		
9/21/2016			0.0237	
11/8/2016	<0.01	<0.01		
11/14/2016			0.0144	<0.01
1/16/2017	<0.01			
1/17/2017		<0.01	0.0095 (J)	
2/28/2017				<0.01
3/1/2017			0.0125	
3/8/2017		<0.01		
3/9/2017	<0.01			
5/2/2017	<0.01	<0.01		
5/3/2017			0.0151	
5/9/2017				<0.01
7/7/2017		<0.01		
7/10/2017	<0.01		0.0121	
7/13/2017				<0.01
9/22/2017				<0.01
9/29/2017				<0.01
10/6/2017				<0.01
3/30/2018	<0.01	<0.01	0.013	<0.01
6/12/2018	<0.01	<0.01	0.014	
6/13/2018				<0.01
9/26/2018		<0.01	0.023	<0.01
9/27/2018	<0.01			
3/5/2019		<0.01		
3/6/2019	<0.01		0.028	<0.01
4/4/2019	<0.01	<0.01	0.031	<0.01
Mean	0.005	0.005	0.02023	0.004662
Std. Dev.	0	0	0.008941	0.00122
Upper Lim.	0.005	0.005	0.02688	0.005
Lower Lim.	0.005	0.005	0.01358	0.0006

Confidence Interval

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 5/13/2019 5:09 PM View: AP-3, B-B' Confidence Interval

Plant Yates Client: Southern Company Data: Yates

	YGWC-23S	YGWC-24S	YGWC-33S	YGWC-36
6/7/2016	0.303 (U)			
6/8/2016		1.06	0.384 (U)	
7/28/2016	0.386 (U)			
8/1/2016		0.467 (U)	1.55	
9/2/2016				0.873 (U)
9/20/2016	1.47	0.853 (U)		
9/21/2016			2.36	
9/22/2016				0.667 (U)
9/29/2016				1.63
10/6/2016				0.641 (U)
11/8/2016	0.22 (U)	0.433 (U)		
11/14/2016			0.851 (U)	0.0451 (U)
1/16/2017	0.147 (U)			
1/17/2017		0.0759 (U)	1.41 (U)	
2/28/2017				1.34 (U)
3/1/2017			1.13	
3/8/2017		0.479 (U)		
3/9/2017	0.0892 (U)			
5/2/2017	0.149 (U)	0.506 (U)		
5/3/2017			0.584 (U)	
5/9/2017				0.309 (U)
7/7/2017		0.713 (U)		
7/10/2017	0.815 (U)		0.46 (U)	
7/13/2017				0.618 (U)
3/30/2018	0.659 (U)	0.409 (U)	0.607 (U)	0.721 (U)
6/12/2018	1.03 (U)	0.728 (U)	0.633 (U)	
6/13/2018				1.04 (U)
9/26/2018		0.981	1.38	0.604 (U)
9/27/2018	1.06 (U)			
3/5/2019		0.837 (U)		
3/6/2019	0.736 (U)		0.97 (U)	0.919 (U)
4/4/2019	0.474 (U)		1.14	1.05 (U)
4/9/2019		0.502 (U)		
Mean	0.5799	0.6188	1.035	0.8044
Std. Dev.	0.4262	0.2725	0.5509	0.4135
Upper Lim.	0.8968	0.8214	1.445	1.112
Lower Lim.	0.2629	0.4161	0.6257	0.4969

Confidence Interval

Constituent: Fluoride (mg/L) Analysis Run 5/13/2019 5:09 PM View: AP-3, B-B' Confidence Interval

Plant Yates Client: Southern Company Data: Yates

	YGWC-23S	YGWC-24S	YGWC-33S	YGWC-36
6/7/2016	<0.3			
6/8/2016		<0.3	0.34	
7/28/2016	0.03 (J)			
8/1/2016		<0.3	0.24 (J)	
9/2/2016				0.05 (J)
9/20/2016	<0.3	<0.3		
9/21/2016			0.22 (J)	
11/8/2016	<0.3	<0.3 (*)		
11/14/2016			0.35	0.18 (J)
1/16/2017	<0.3			
1/17/2017		<0.3	0.22 (J)	
2/28/2017				0.09 (J)
3/1/2017			0.33	
3/8/2017		<0.3 (*)		
3/9/2017	<0.3 (*)			
5/2/2017	<0.3	<0.3		
5/3/2017			0.2 (J)	
5/9/2017				0.009 (J)
7/7/2017		<0.3		
7/10/2017	<0.3 (*)		0.57	
7/13/2017				<0.3
9/22/2017				0.09 (J)
9/29/2017				<0.3
10/5/2017		<0.3		
10/6/2017				<0.3
10/11/2017	<0.3		<0.3 (*)	<0.3 (*)
3/30/2018	<0.3	<0.3	1.4	<0.3
6/12/2018	<0.3	<0.3	0.18 (J)	
6/13/2018				<0.3
9/26/2018		<0.3	0.07 (J)	<0.3
9/27/2018	<0.3			
3/5/2019		<0.3		
3/6/2019	<0.3		0.49	<0.3
4/4/2019	0.049 (J)	0.033 (J)	0.57	0.043 (J)
Mean	0.1342	0.1416	0.3807	0.1187
Std. Dev.	0.0403	0.03127	0.3307	0.05242
Upper Lim.	0.15	0.15	0.5426	0.18
Lower Lim.	0.049	0.033	0.1761	0.05

Confidence Interval

Constituent: Lead (mg/L) Analysis Run 5/13/2019 5:09 PM View: AP-3, B-B` Confidence Interval

Plant Yates Client: Southern Company Data: Yates

	YGWC-23S	YGWC-24S	YGWC-33S	YGWC-36
6/7/2016	0.00044 (J)			
6/8/2016		<0.005	<0.005 (*)	
7/28/2016	<0.005			
8/1/2016		<0.005	0.0005 (J)	
9/2/2016				0.0017 (J)
9/20/2016	<0.005	<0.005		
9/21/2016			0.0006 (J)	
11/8/2016	<0.005	<0.005		
11/14/2016			0.0012 (J)	0.0002 (J)
1/16/2017	<0.005			
1/17/2017		<0.005	0.002 (J)	
2/28/2017				0.0003 (J)
3/1/2017			0.002 (J)	
3/8/2017		<0.005		
3/9/2017	<0.005			
5/2/2017	<0.005	<0.005		
5/3/2017			<0.005 (*)	
5/9/2017				0.0004 (J)
7/7/2017		<0.005		
7/10/2017	<0.005		0.0018 (J)	
7/13/2017				0.0004 (J)
9/22/2017				0.0003 (J)
9/29/2017				0.0002 (J)
10/6/2017				0.0002 (J)
3/30/2018	<0.005	<0.005	<0.005	<0.005
3/5/2019		<0.005		
3/6/2019	<0.005		0.0012 (J)	<0.005
4/4/2019	<0.005	<0.005	0.0014 (J)	0.00037 (J)
Mean	0.002313	0.0025	0.001655	0.0008245
Std. Dev.	0.0006211	0	0.0007299	0.000931
Upper Lim.	0.0025	0.0025	0.004567	0.0025
Lower Lim.	0.00044	0.0025	0.0007647	0.0002

Confidence Interval

Constituent: Lithium (mg/L) Analysis Run 5/13/2019 5:09 PM View: AP-3, B-B' Confidence Interval

Plant Yates Client: Southern Company Data: Yates

	YGWC-23S	YGWC-24S	YGWC-33S	YGWC-36
6/7/2016	<0.005 (o)			
6/8/2016		<0.05	0.0099	
7/28/2016	0.0019 (J)			
8/1/2016		<0.05	0.0142 (J)	
9/2/2016				0.0029 (J)
9/20/2016	0.0021 (J)	<0.05		
9/21/2016			0.0145 (J)	
11/8/2016	0.0024 (J)	<0.05		
11/14/2016			0.0253 (J)	0.0044 (J)
1/16/2017	0.0022 (J)			
1/17/2017		<0.05	0.0256 (J)	
2/28/2017				0.0038 (J)
3/1/2017			0.0219 (J)	
3/8/2017		<0.05		
3/9/2017	0.0025 (J)			
5/2/2017	0.0019 (J)	<0.05		
5/3/2017			0.0217 (J)	
5/9/2017				0.0057 (J)
7/7/2017		<0.05		
7/10/2017	0.0018 (J)		0.0214 (J)	
7/13/2017				0.007 (J)
9/22/2017				0.0067 (J)
9/29/2017				0.0064 (J)
10/6/2017				0.0065 (J)
3/30/2018	0.0039 (J)	<0.05	0.024 (J)	0.0061 (J)
6/12/2018	0.0017 (J)	<0.05	0.023 (J)	
6/13/2018				0.0065 (J)
9/26/2018		<0.05	0.034 (J)	0.0063 (J)
9/27/2018	0.0017 (J)			
3/5/2019		<0.05		
3/6/2019	0.0025 (J)		0.033 (J)	0.0057 (J)
4/4/2019	0.0018 (J)	<0.05	0.035 (J)	0.0058 (J)
Mean	0.0022	0.025	0.02335	0.005677
Std. Dev.	0.000612	0	0.007655	0.001229
Upper Lim.	0.0025	0.025	0.02904	0.006542
Lower Lim.	0.0017	0.025	0.01765	0.004945

Confidence Interval

Constituent: Selenium (mg/L) Analysis Run 5/13/2019 5:09 PM View: AP-3, B-B' Confidence
Interval Plant Yates Client: Southern Company Data: Yates

	YGWC-23S	YGWC-24S	YGWC-33S	YGWC-36
6/7/2016	0.037			
6/8/2016		<0.01	0.0011 (J)	
7/28/2016	0.0385			
8/1/2016		<0.01	0.0192	
9/2/2016				0.0012 (J)
9/20/2016	0.0464	<0.01		
9/21/2016			0.0147	
11/8/2016	0.0521	<0.01		
11/14/2016			<0.01	<0.01
1/16/2017	0.0469			
1/17/2017		<0.01	0.0122	
2/28/2017				0.0017 (J)
3/1/2017			0.0151	
3/8/2017		<0.01		
3/9/2017	0.0437			
5/2/2017	0.0395	<0.01		
5/3/2017			0.012	
5/9/2017				0.0018 (J)
7/7/2017		<0.01		
7/10/2017	0.0386		0.0106	
7/13/2017				0.0031 (J)
9/22/2017				0.0024 (J)
9/29/2017				0.002 (J)
10/6/2017				<0.01
3/30/2018	0.028	<0.01	0.011	<0.01
6/12/2018	0.026	<0.01	0.0057 (J)	
6/13/2018				0.0024 (J)
9/26/2018		<0.01	0.016	0.0037 (J)
9/27/2018	0.023			
3/5/2019		<0.01		
3/6/2019	0.019		0.013	0.0033 (J)
4/4/2019	0.017	<0.01	0.012	0.0029 (J)
Mean	0.03505	0.005	0.01135	0.003038
Std. Dev.	0.01134	0	0.004923	0.001312
Upper Lim.	0.04349	0.005	0.01501	0.007754
Lower Lim.	0.02662	0.005	0.007693	0.001566

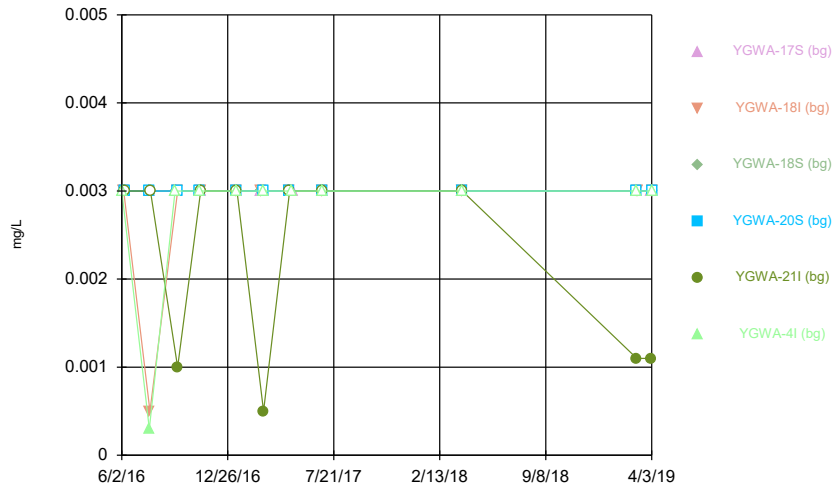
Confidence Interval

Constituent: Thallium (mg/L) Analysis Run 5/13/2019 5:09 PM View: AP-3, B-B Confidence Interval

Plant Yates Client: Southern Company Data: Yates

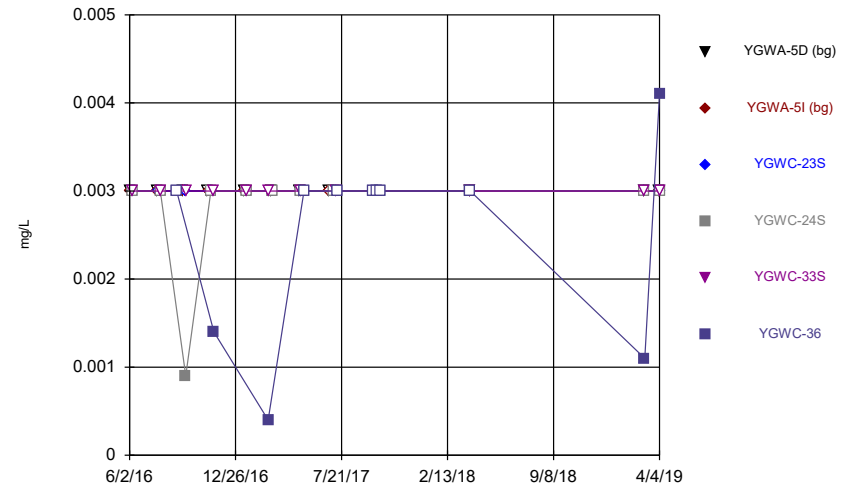
	YGWC-23S	YGWC-24S	YGWC-33S	YGWC-36
6/7/2016	<0.001			
6/8/2016		<0.001	<0.001	
7/28/2016	<0.001			
8/1/2016		<0.001	6E-05 (J)	
9/2/2016				<0.001
9/20/2016	<0.001	<0.001		
9/21/2016			<0.001	
11/8/2016	<0.001	<0.001		
11/14/2016			<0.001	<0.001
1/16/2017	<0.001			
1/17/2017		<0.001	0.0004 (J)	
2/28/2017				<0.001
3/1/2017			0.0003 (J)	
3/8/2017		<0.001		
3/9/2017	<0.001			
5/2/2017	<0.001	<0.001		
5/3/2017			0.0002 (J)	
5/9/2017				<0.001
7/7/2017		<0.001		
7/10/2017	<0.001		0.0002 (J)	
7/13/2017				<0.001
9/22/2017				<0.001
9/29/2017				<0.001
10/6/2017				<0.001
3/30/2018	<0.001	<0.001	<0.001	<0.001
3/5/2019		<0.001		
3/6/2019	<0.001		0.00016 (J)	<0.001
4/4/2019	<0.001	<0.001	0.00018 (J)	<0.001
Mean	0.0005	0.0005	0.0003182	0.0005
Std. Dev.	0	0	0.0001667	0
Upper Lim.	0.0005	0.0005	0.001114	0.0005
Lower Lim.	0.0005	0.0005	0.0001451	0.0005

Time Series



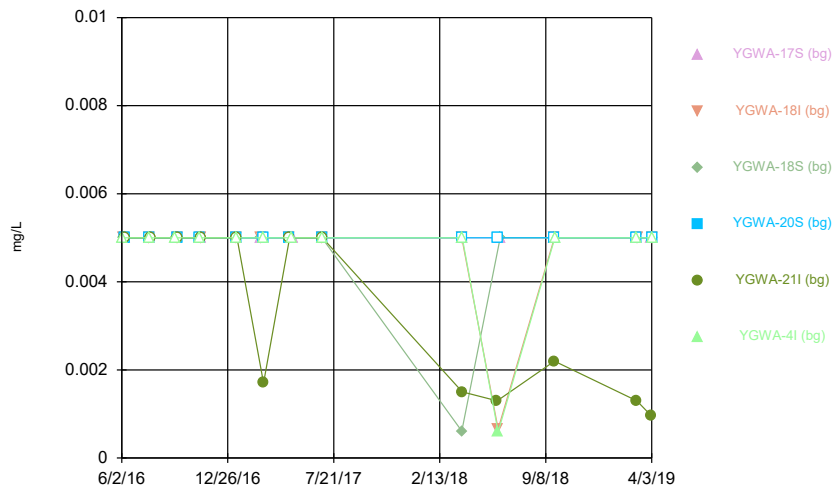
Constituent: Antimony Analysis Run 5/13/2019 2:19 PM View: AP-3, B-B' Time Series
Plant Yates Client: Southern Company Data: Yates

Time Series



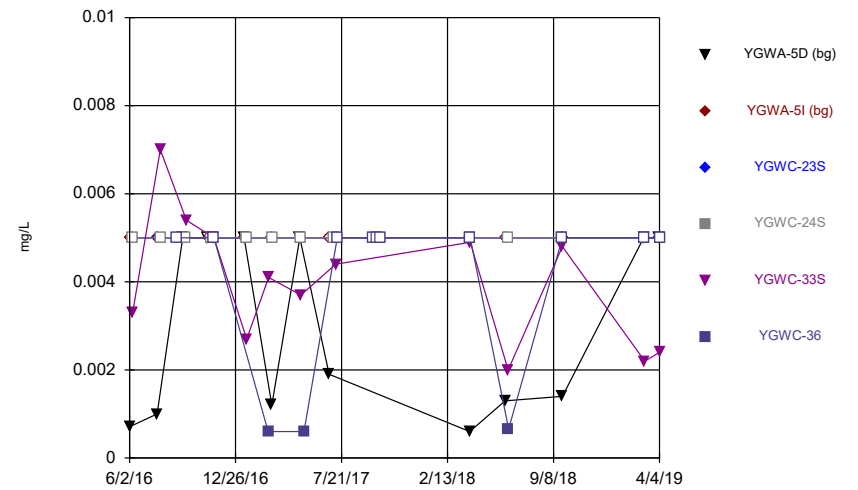
Constituent: Antimony Analysis Run 5/13/2019 2:19 PM View: AP-3, B-B' Time Series
Plant Yates Client: Southern Company Data: Yates

Time Series



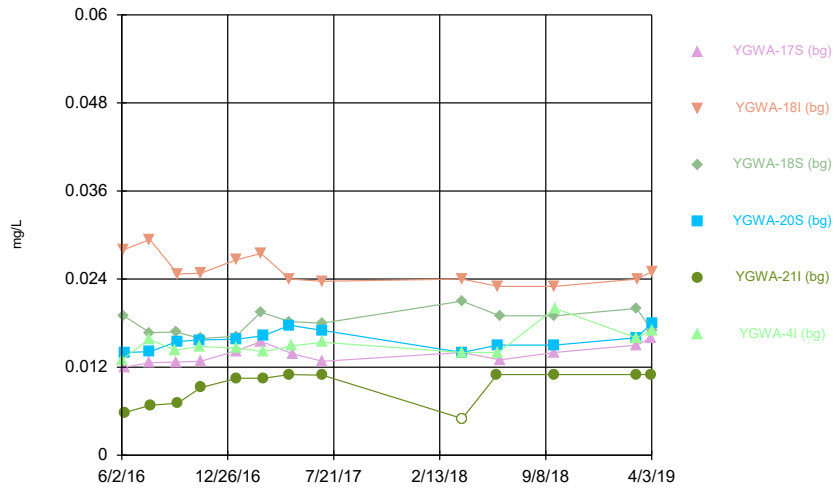
Constituent: Arsenic Analysis Run 5/13/2019 2:19 PM View: AP-3, B-B' Time Series
Plant Yates Client: Southern Company Data: Yates

Time Series



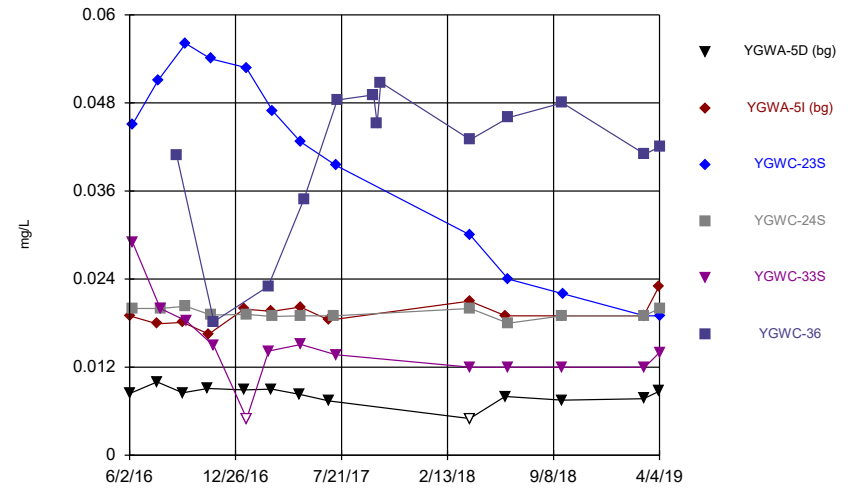
Constituent: Arsenic Analysis Run 5/13/2019 2:19 PM View: AP-3, B-B' Time Series
Plant Yates Client: Southern Company Data: Yates

Time Series



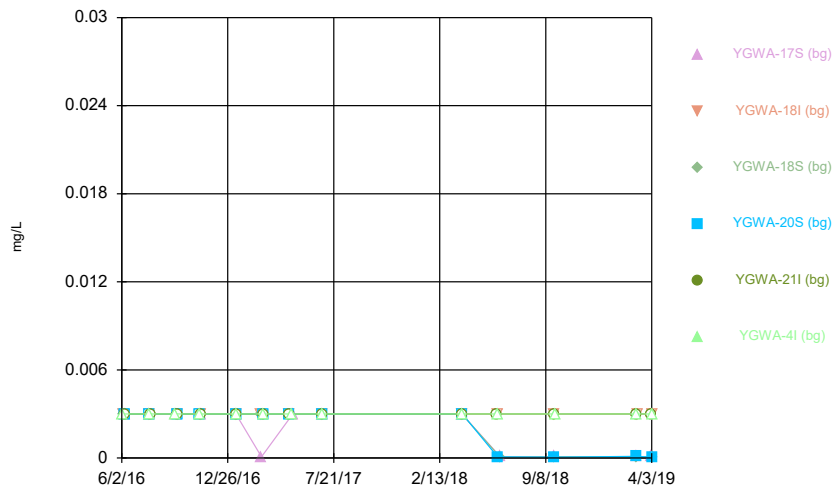
Constituent: Barium Analysis Run 5/13/2019 2:20 PM View: AP-3, B-B` Time Series
Plant Yates Client: Southern Company Data: Yates

Time Series



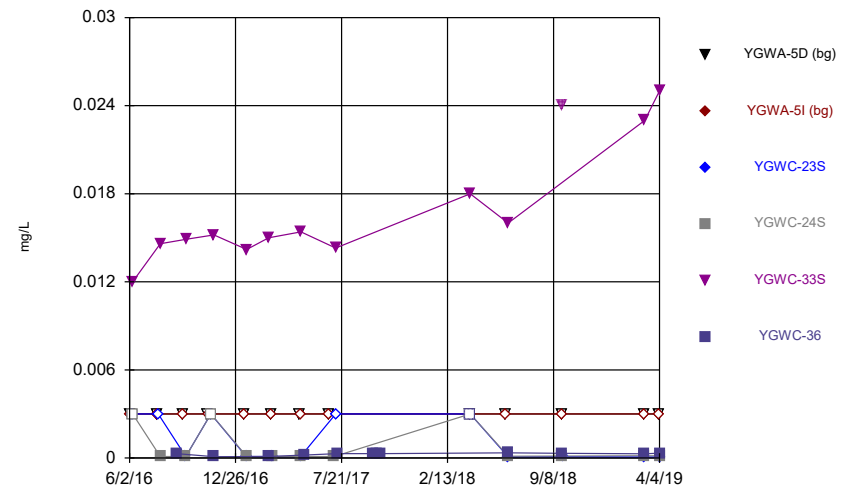
Constituent: Barium Analysis Run 5/13/2019 2:20 PM View: AP-3, B-B` Time Series
Plant Yates Client: Southern Company Data: Yates

Time Series



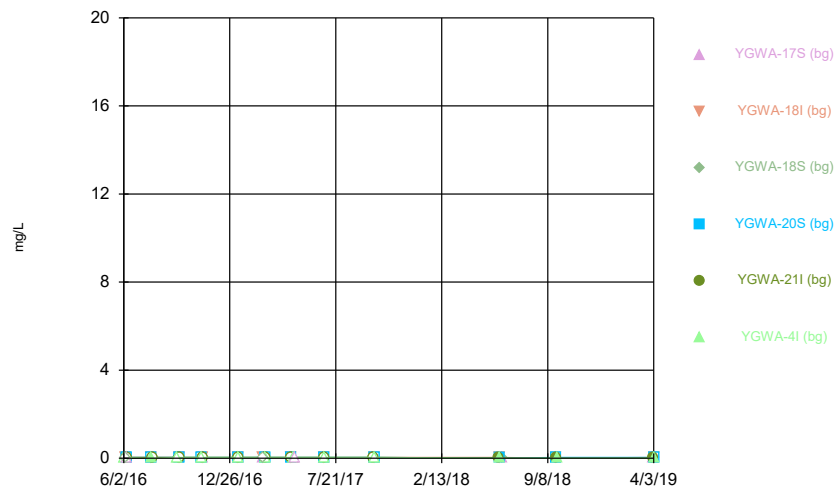
Constituent: Beryllium Analysis Run 5/13/2019 2:20 PM View: AP-3, B-B` Time Series
Plant Yates Client: Southern Company Data: Yates

Time Series



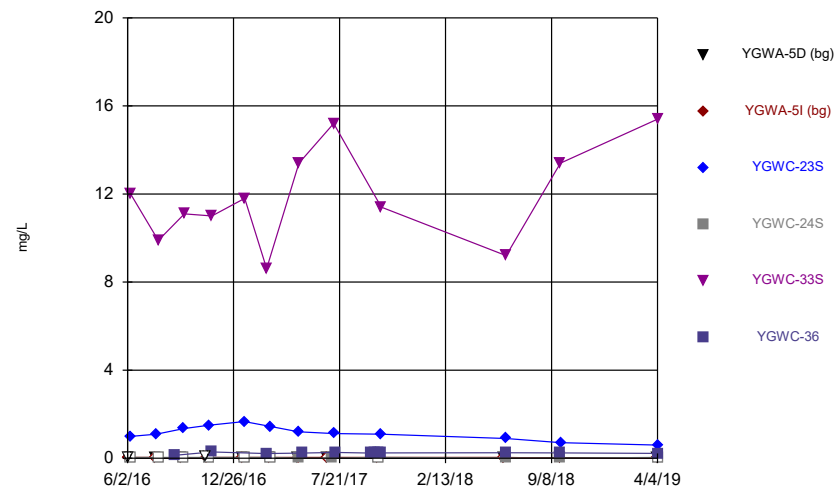
Constituent: Beryllium Analysis Run 5/13/2019 2:20 PM View: AP-3, B-B` Time Series
Plant Yates Client: Southern Company Data: Yates

Time Series



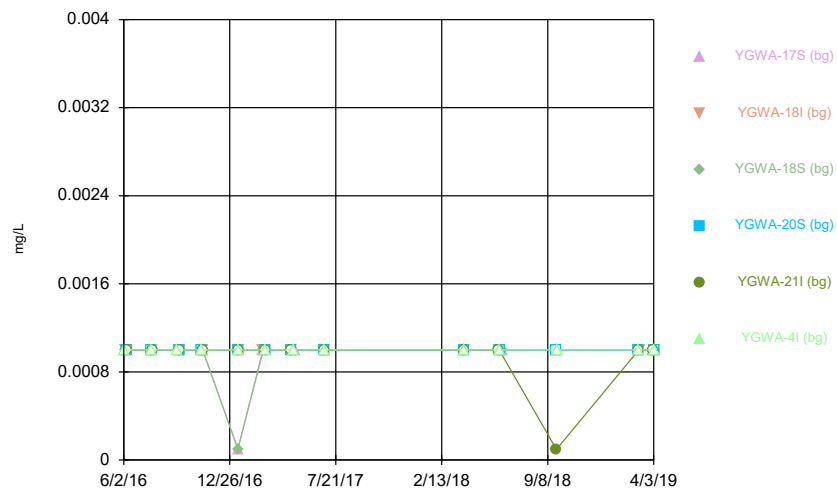
Constituent: Boron Analysis Run 5/13/2019 2:20 PM View: AP-3, B-B' Time Series
Plant Yates Client: Southern Company Data: Yates

Time Series



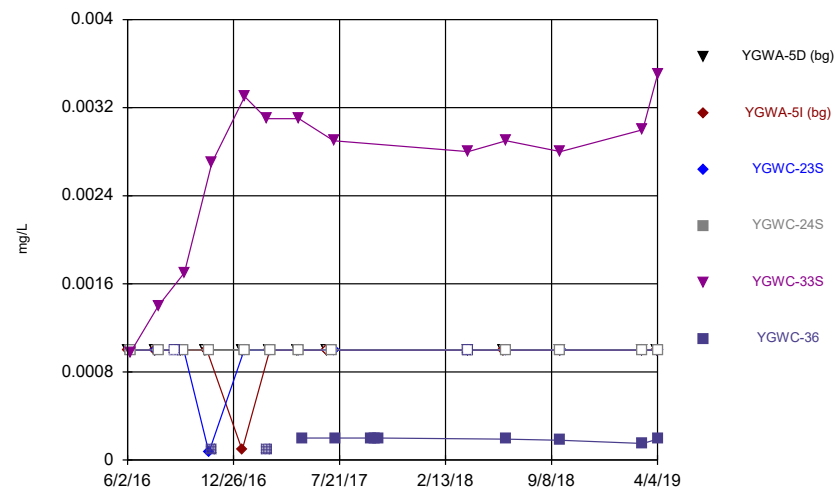
Constituent: Boron Analysis Run 5/13/2019 2:20 PM View: AP-3, B-B' Time Series
Plant Yates Client: Southern Company Data: Yates

Time Series



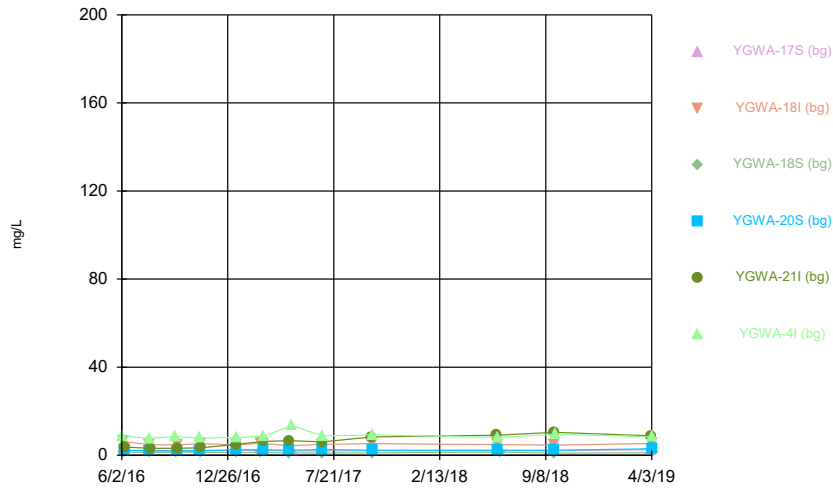
Constituent: Cadmium Analysis Run 5/13/2019 2:20 PM View: AP-3, B-B' Time Series
Plant Yates Client: Southern Company Data: Yates

Time Series



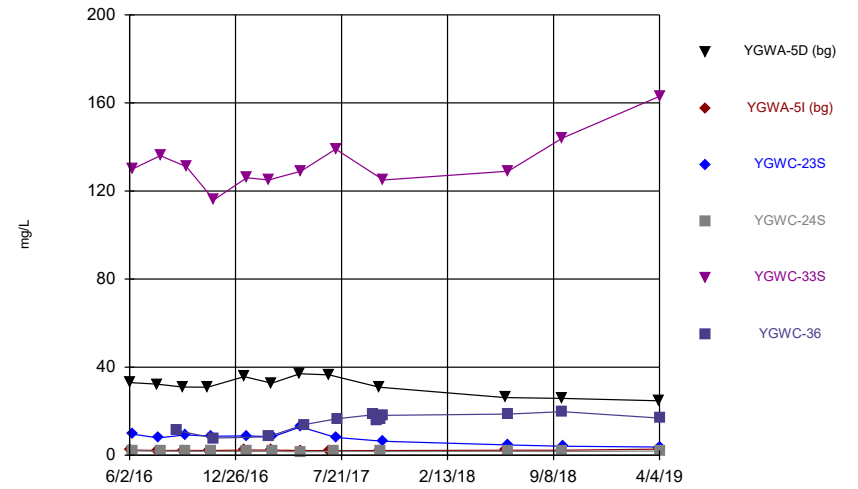
Constituent: Cadmium Analysis Run 5/13/2019 2:20 PM View: AP-3, B-B' Time Series
Plant Yates Client: Southern Company Data: Yates

Time Series



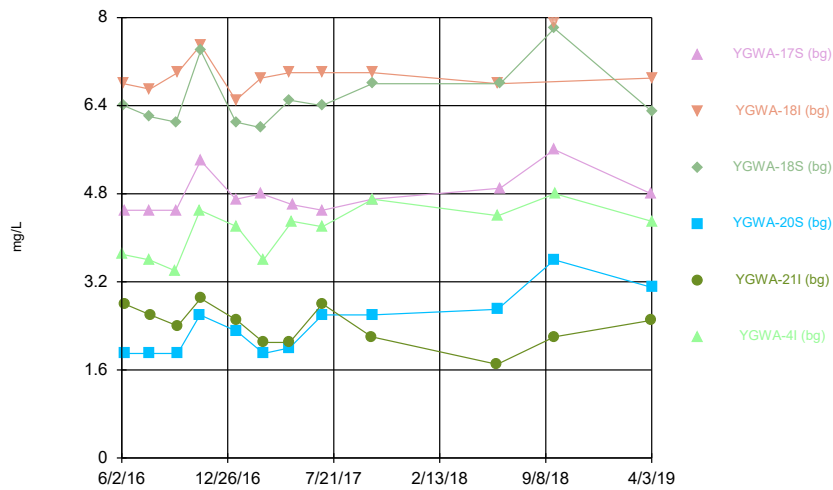
Constituent: Calcium Analysis Run 5/13/2019 2:20 PM View: AP-3, B-B' Time Series
 Plant Yates Client: Southern Company Data: Yates

Time Series



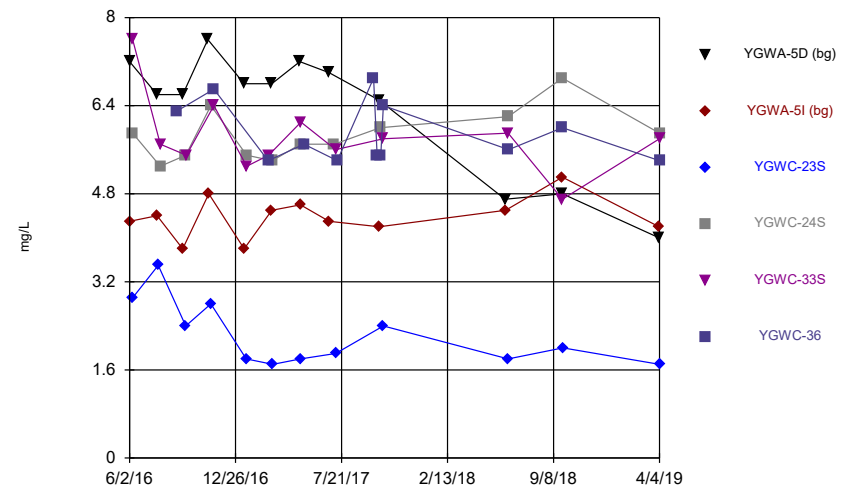
Constituent: Calcium Analysis Run 5/13/2019 2:20 PM View: AP-3, B-B' Time Series
 Plant Yates Client: Southern Company Data: Yates

Time Series



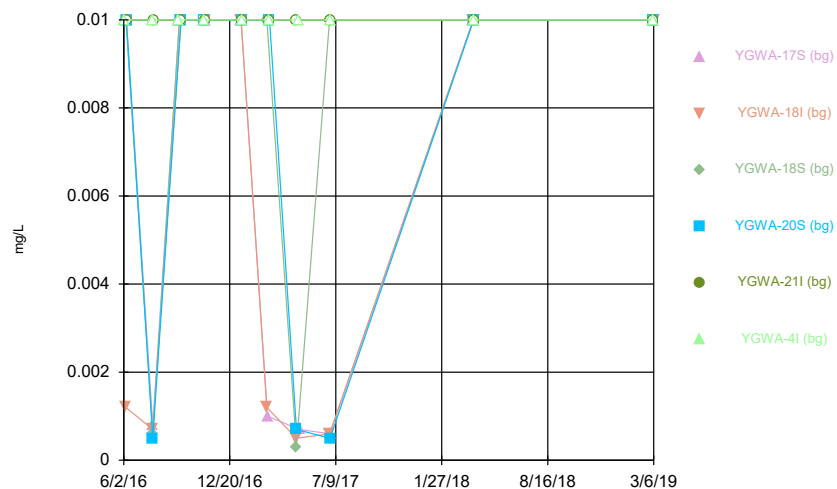
Constituent: Chloride Analysis Run 5/13/2019 2:20 PM View: AP-3, B-B' Time Series
 Plant Yates Client: Southern Company Data: Yates

Time Series



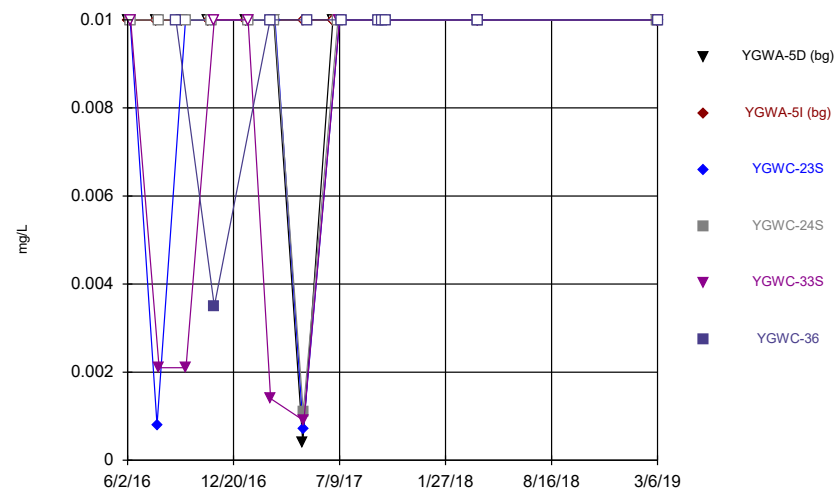
Constituent: Chloride Analysis Run 5/13/2019 2:20 PM View: AP-3, B-B' Time Series
 Plant Yates Client: Southern Company Data: Yates

Time Series



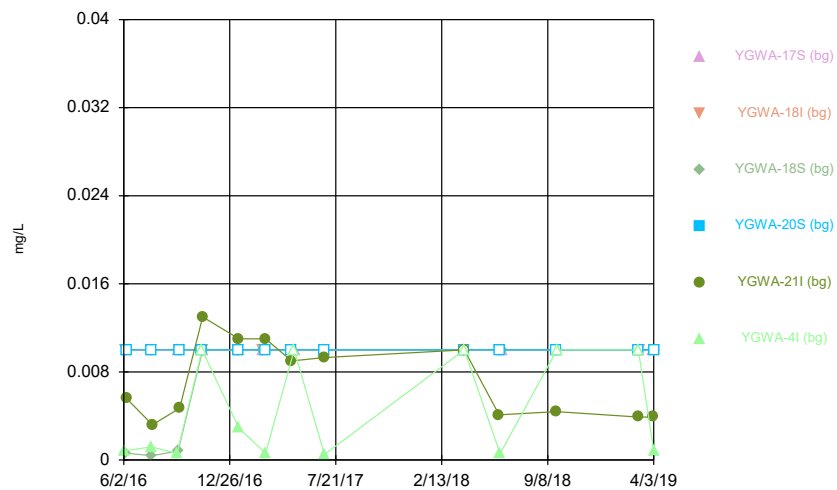
Constituent: Chromium Analysis Run 5/13/2019 2:20 PM View: AP-3, B-B' Time Series
Plant Yates Client: Southern Company Data: Yates

Time Series



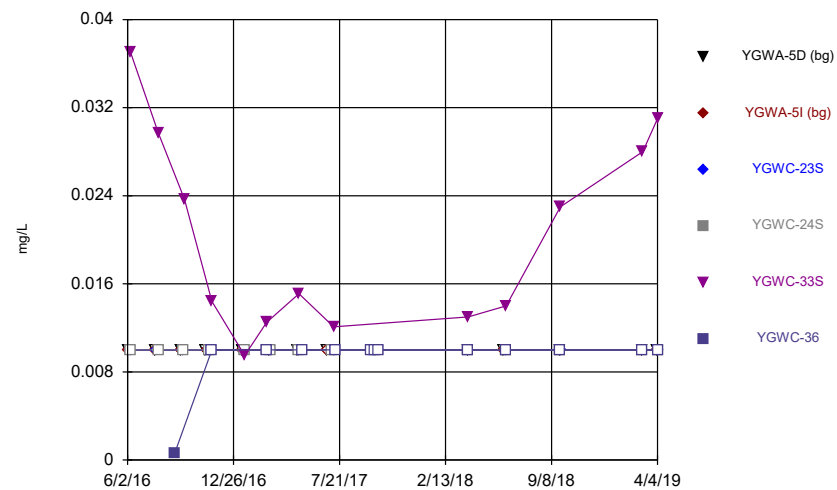
Constituent: Chromium Analysis Run 5/13/2019 2:20 PM View: AP-3, B-B' Time Series
Plant Yates Client: Southern Company Data: Yates

Time Series



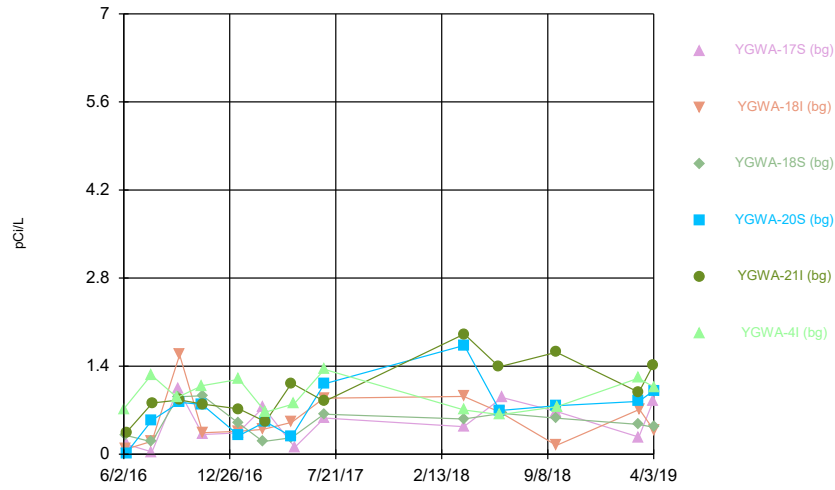
Constituent: Cobalt Analysis Run 5/13/2019 2:20 PM View: AP-3, B-B' Time Series
Plant Yates Client: Southern Company Data: Yates

Time Series



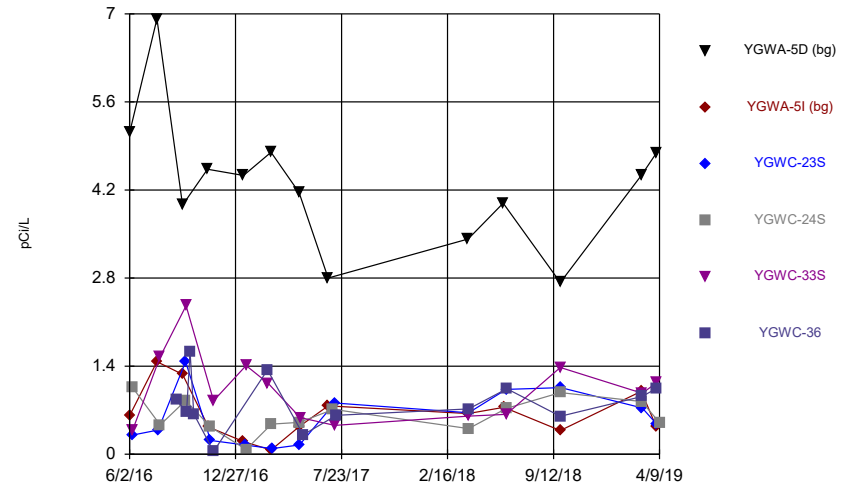
Constituent: Cobalt Analysis Run 5/13/2019 2:20 PM View: AP-3, B-B' Time Series
Plant Yates Client: Southern Company Data: Yates

Time Series



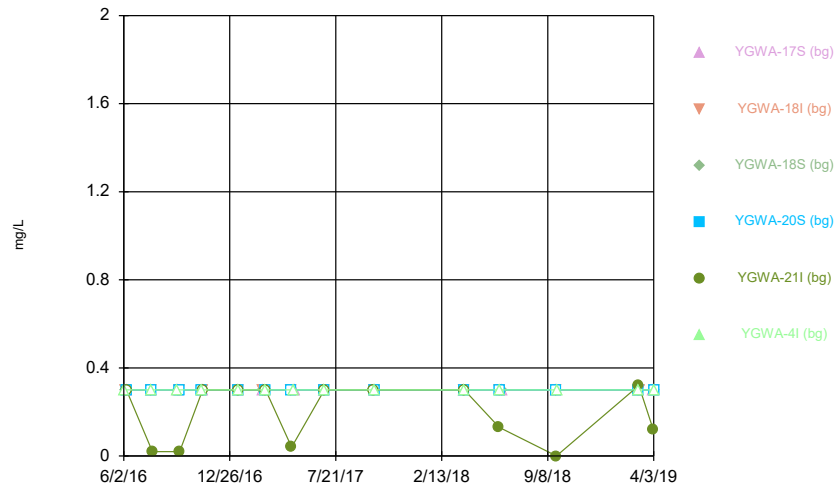
Constituent: Combined Radium 226 + 228 Analysis Run 5/13/2019 2:20 PM View: AP-3, B-B' Time Series
Plant Yates Client: Southern Company Data: Yates

Time Series



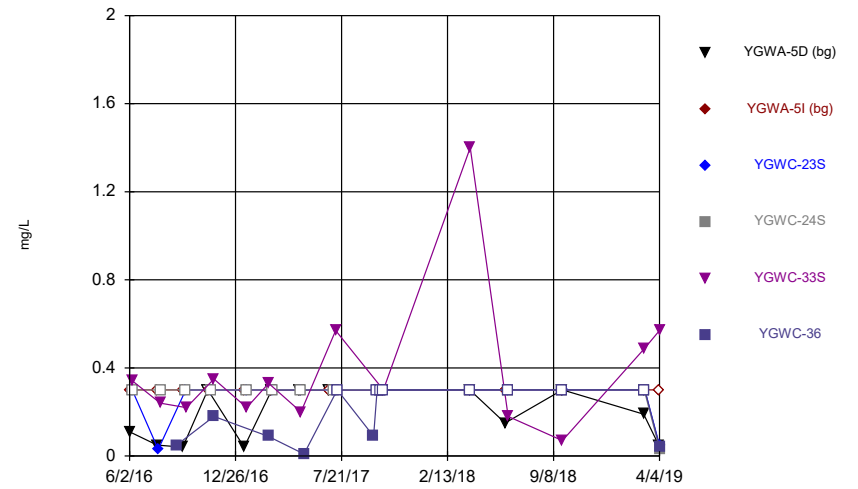
Constituent: Combined Radium 226 + 228 Analysis Run 5/13/2019 2:20 PM View: AP-3, B-B' Time Series
Plant Yates Client: Southern Company Data: Yates

Time Series



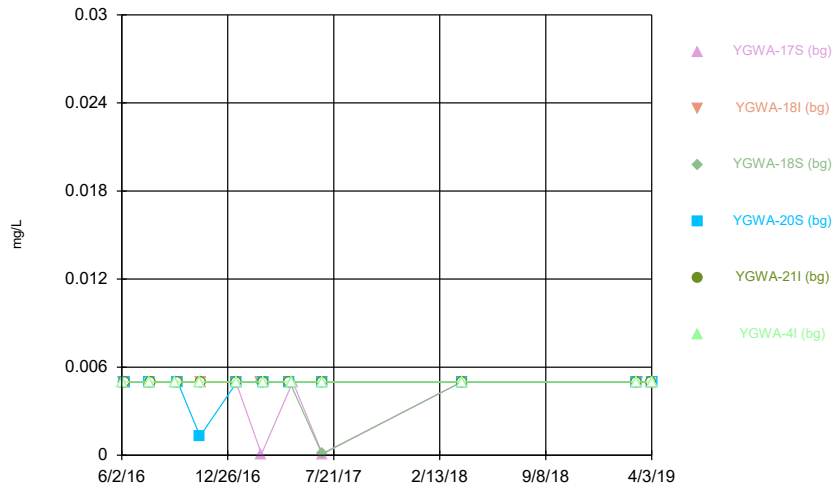
Constituent: Fluoride Analysis Run 5/13/2019 2:20 PM View: AP-3, B-B' Time Series
Plant Yates Client: Southern Company Data: Yates

Time Series



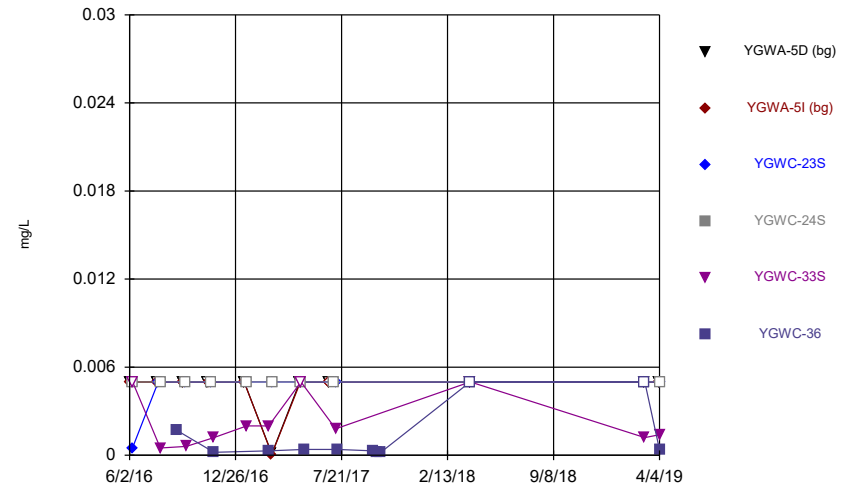
Constituent: Fluoride Analysis Run 5/13/2019 2:20 PM View: AP-3, B-B' Time Series
Plant Yates Client: Southern Company Data: Yates

Time Series



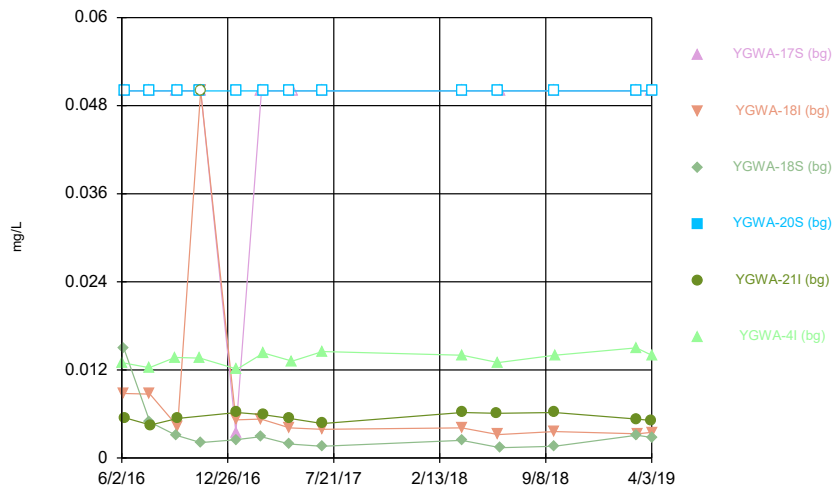
Constituent: Lead Analysis Run 5/13/2019 2:20 PM View: AP-3, B-B' Time Series
Plant Yates Client: Southern Company Data: Yates

Time Series



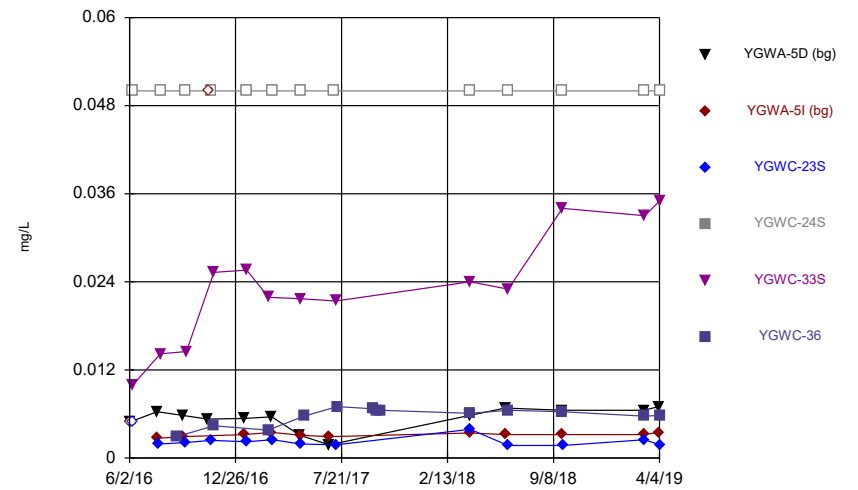
Constituent: Lead Analysis Run 5/13/2019 2:20 PM View: AP-3, B-B' Time Series
Plant Yates Client: Southern Company Data: Yates

Time Series



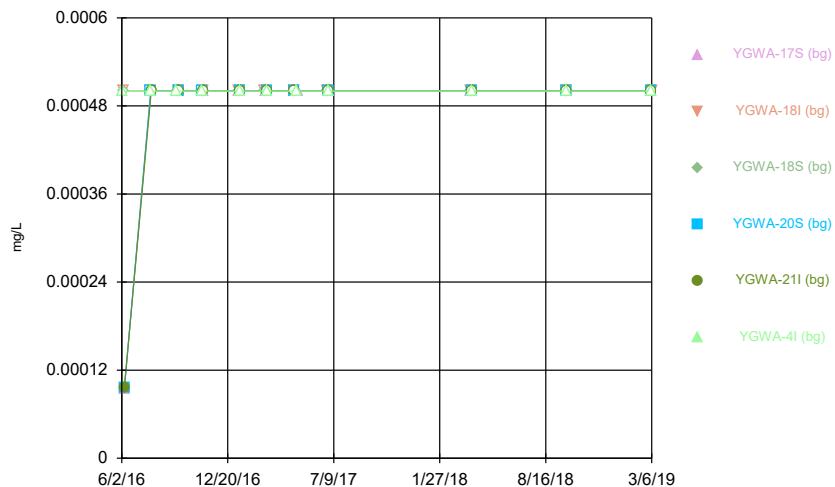
Constituent: Lithium Analysis Run 5/13/2019 2:20 PM View: AP-3, B-B' Time Series
Plant Yates Client: Southern Company Data: Yates

Time Series



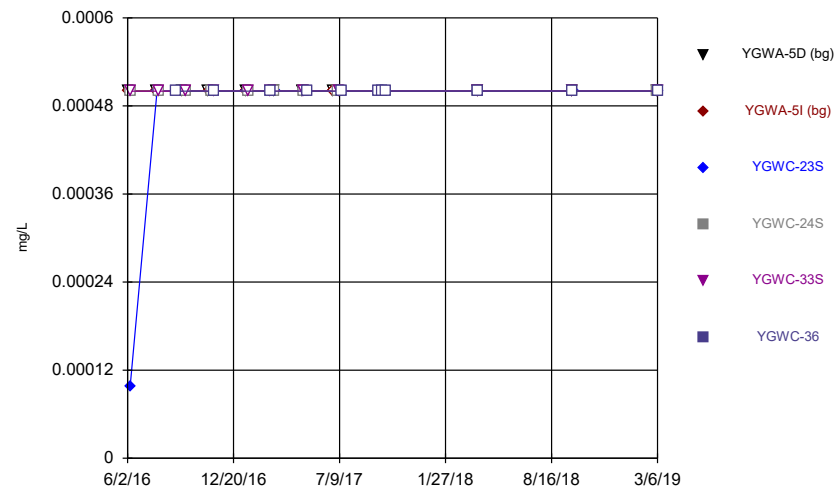
Constituent: Lithium Analysis Run 5/13/2019 2:20 PM View: AP-3, B-B' Time Series
Plant Yates Client: Southern Company Data: Yates

Time Series



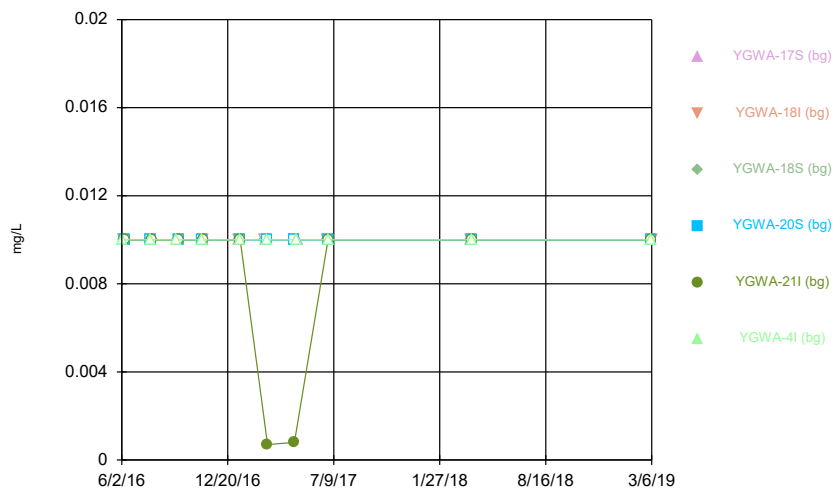
Constituent: Mercury Analysis Run 5/13/2019 2:20 PM View: AP-3, B-B' Time Series
Plant Yates Client: Southern Company Data: Yates

Time Series



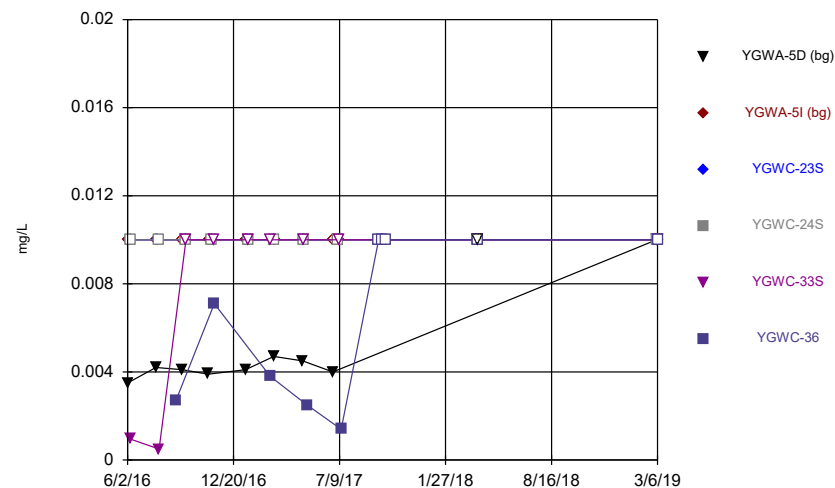
Constituent: Mercury Analysis Run 5/13/2019 2:20 PM View: AP-3, B-B' Time Series
Plant Yates Client: Southern Company Data: Yates

Time Series



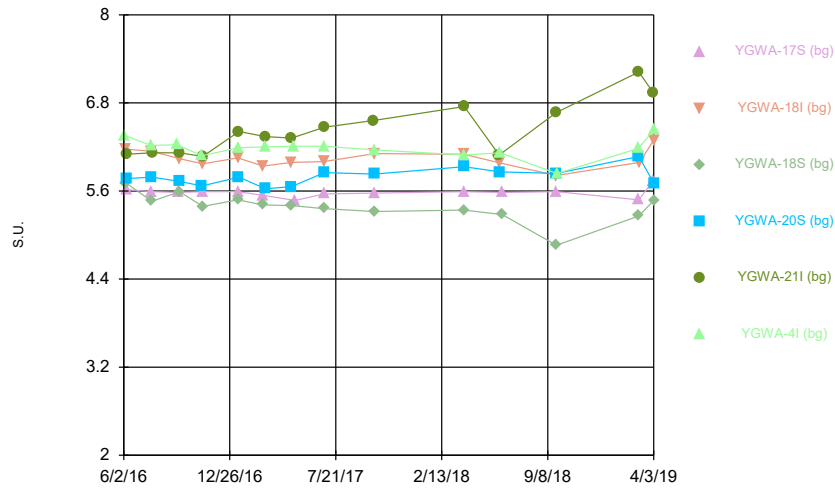
Constituent: Molybdenum Analysis Run 5/13/2019 2:20 PM View: AP-3, B-B' Time Series
Plant Yates Client: Southern Company Data: Yates

Time Series



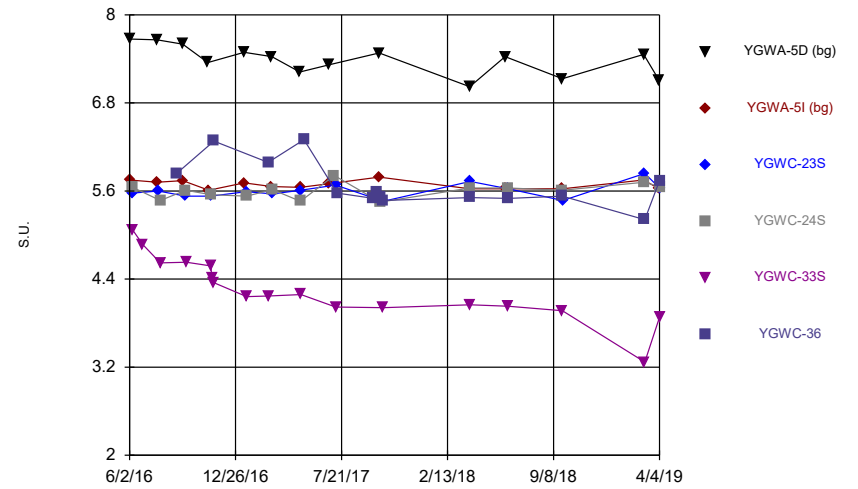
Constituent: Molybdenum Analysis Run 5/13/2019 2:20 PM View: AP-3, B-B' Time Series
Plant Yates Client: Southern Company Data: Yates

Time Series



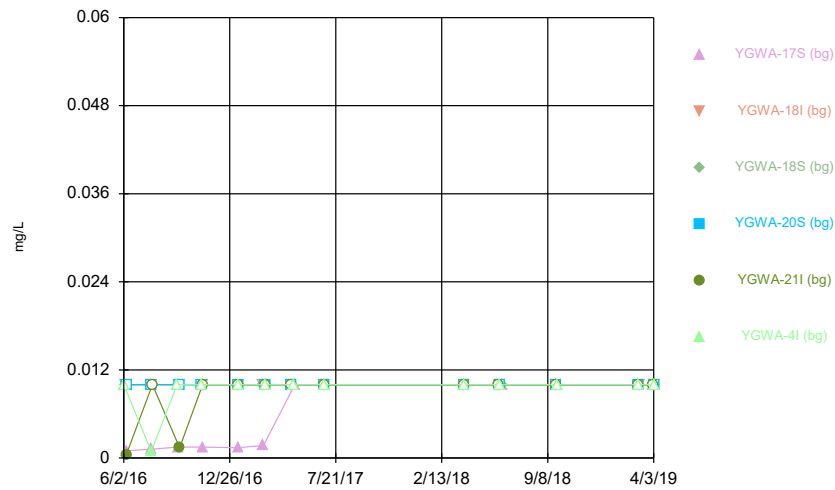
Constituent: pH Analysis Run 5/13/2019 2:20 PM View: AP-3, B-B` Time Series
 Plant Yates Client: Southern Company Data: Yates

Time Series



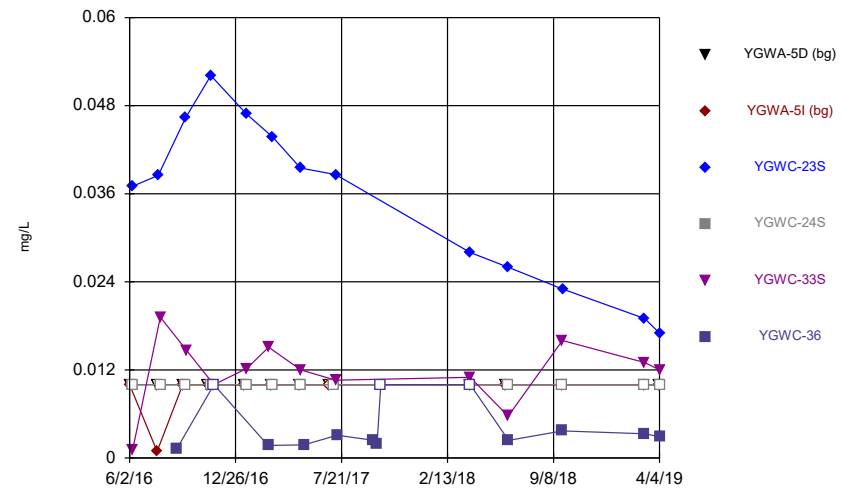
Constituent: pH Analysis Run 5/13/2019 2:20 PM View: AP-3, B-B` Time Series
 Plant Yates Client: Southern Company Data: Yates

Time Series



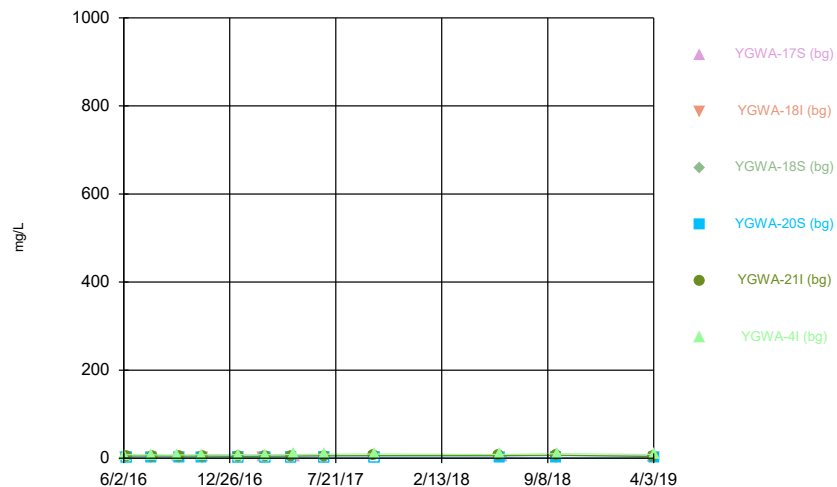
Constituent: Selenium Analysis Run 5/13/2019 2:20 PM View: AP-3, B-B` Time Series
 Plant Yates Client: Southern Company Data: Yates

Time Series



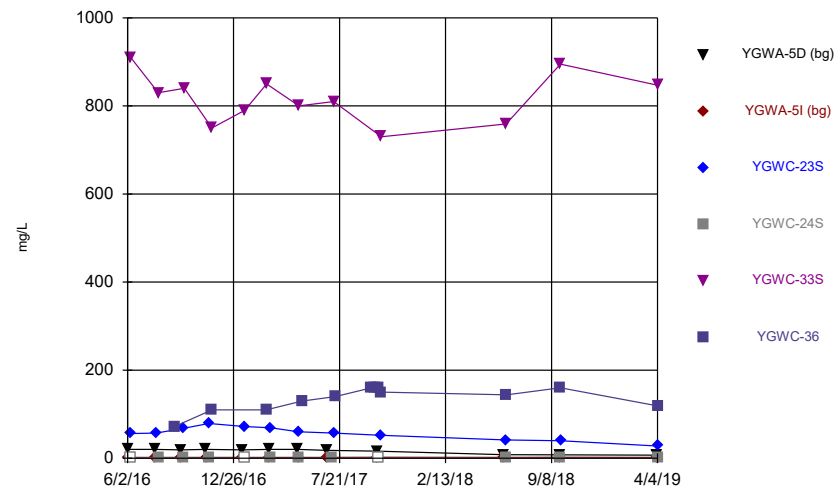
Constituent: Selenium Analysis Run 5/13/2019 2:20 PM View: AP-3, B-B` Time Series
 Plant Yates Client: Southern Company Data: Yates

Time Series



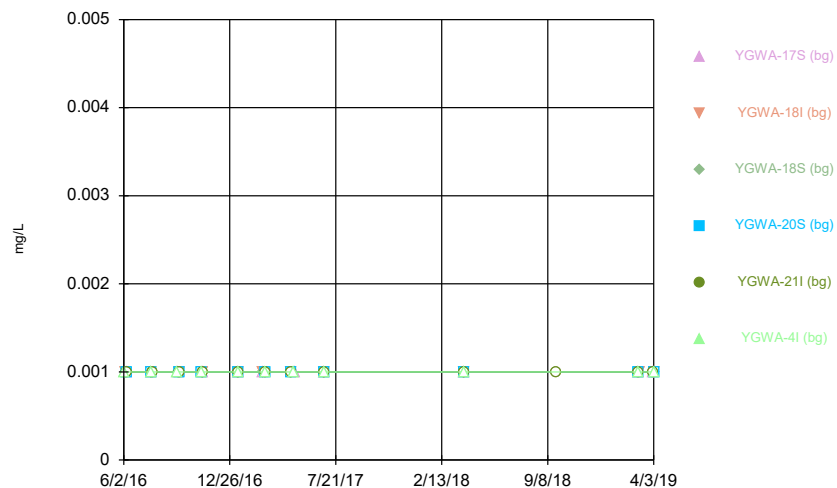
Constituent: Sulfate Analysis Run 5/13/2019 2:20 PM View: AP-3, B-B` Time Series
Plant Yates Client: Southern Company Data: Yates

Time Series



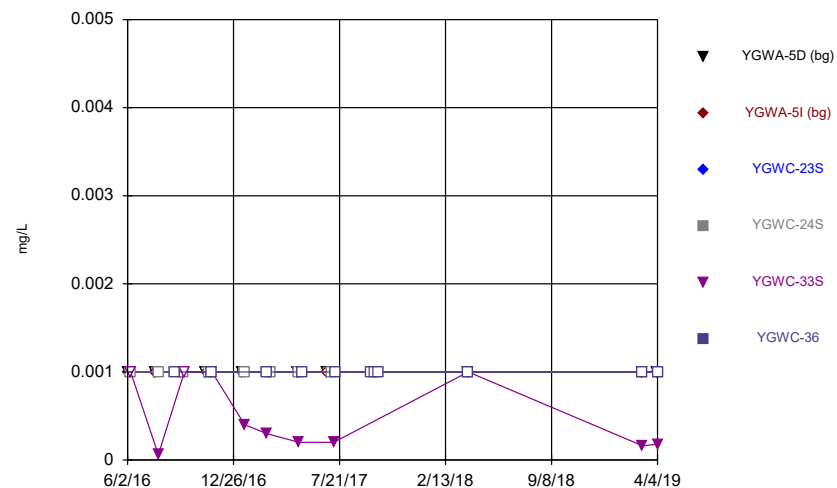
Constituent: Sulfate Analysis Run 5/13/2019 2:20 PM View: AP-3, B-B` Time Series
Plant Yates Client: Southern Company Data: Yates

Time Series



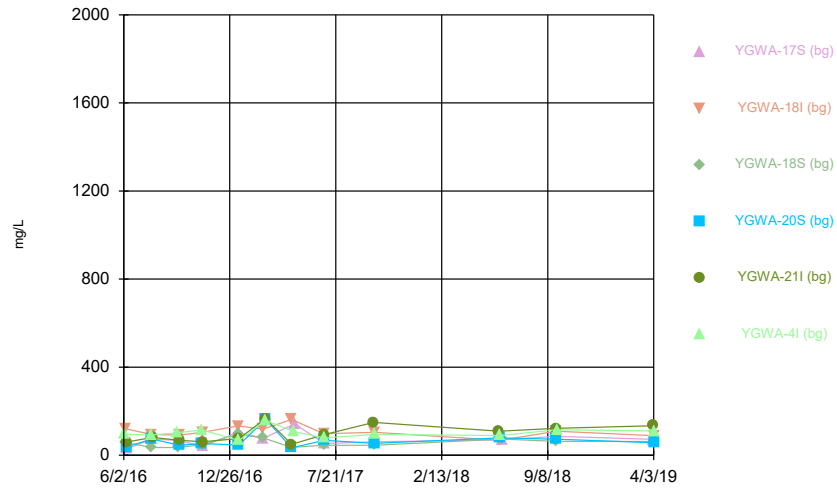
Constituent: Thallium Analysis Run 5/13/2019 2:20 PM View: AP-3, B-B` Time Series
Plant Yates Client: Southern Company Data: Yates

Time Series



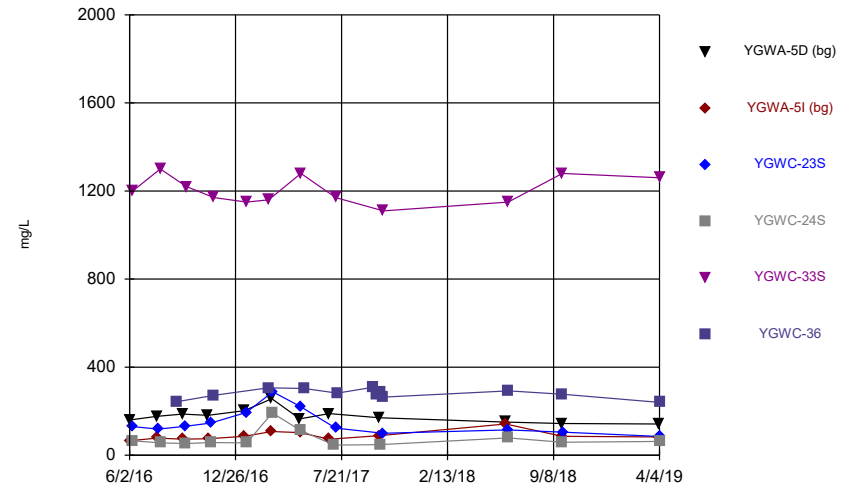
Constituent: Thallium Analysis Run 5/13/2019 2:20 PM View: AP-3, B-B` Time Series
Plant Yates Client: Southern Company Data: Yates

Time Series



Constituent: Total Dissolved Solids Analysis Run 5/13/2019 2:20 PM View: AP-3, B-B' Time Series
Plant Yates Client: Southern Company Data: Yates

Time Series



Constituent: Total Dissolved Solids Analysis Run 5/13/2019 2:20 PM View: AP-3, B-B' Time Series
Plant Yates Client: Southern Company Data: Yates

Interwell Prediction Limit

Plant Yates Client: Southern Company Data: Yates AP-A Printed 4/18/2019, 4:55 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>Transform</u>	<u>Alpha</u>	<u>Method</u>
Sulfate (mg/L)	YGWC-49	17.42	n/a	3/28/2019	82.8	Yes	88	11.36	x^(1/3)	0.001504	Param Inter 1 of 2

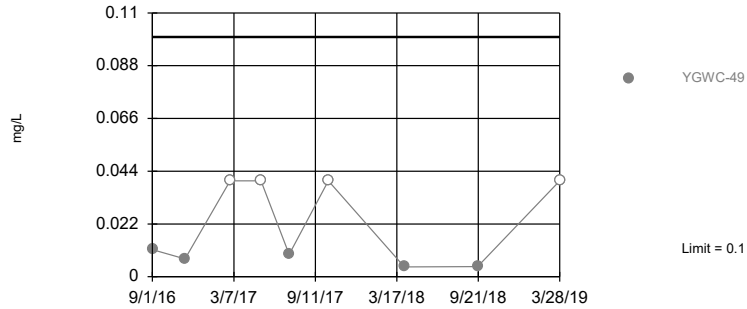
Interwell Prediction Limit

Plant Yates Client: Southern Company Data: Yates AMA, R6 Printed 4/18/2019, 4:55 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>Transform</u>	<u>Alpha</u>	<u>Method</u>
Boron (mg/L)	YGWC-49	0.1	n/a	3/28/2019	0.04ND	No	82	56.1	n/a	0.0002869	NP Inter (NDs) 1 of 2
Calcium (mg/L)	YGWC-49	37	n/a	3/28/2019	11.3	No	88	0	n/a	0.00025	NP Inter (normality) ...
Fluoride (mg/L)	YGWC-49	0.32	n/a	3/28/2019	0.3ND	No	104	88.46	n/a	0.0001817	NP Inter (NDs) 1 of 2
pH (S.U.)	YGWC-49	7.67	4.86	3/28/2019	5.86	No	104	0	n/a	0.0003634	NP Inter (normality) ...
Sulfate (mg/L)	YGWC-49	17.42	n/a	3/28/2019	82.8	Yes	88	11.36	x^(1/3)	0.001504	Param Inter 1 of 2
Total Dissolved Solids ...	YGWC-49	185.7	n/a	3/28/2019	164	No	88	0	sqrt(x)	0.001504	Param Inter 1 of 2

Within Limit

Prediction Limit
Interwell Non-parametric

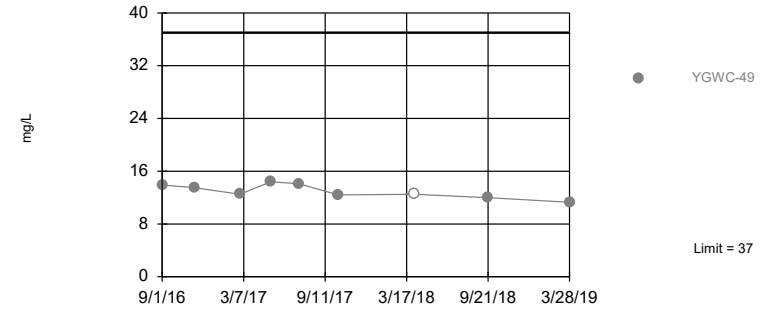


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 82 background values. 56.1% NDs. Annual per-constituent alpha = 0.002865. Individual comparison alpha = 0.0002869 (1 of 2). Assumes 4 future values. Seasonality was not detected with 95% confidence.

Constituent: Boron Analysis Run 4/18/2019 4:53 PM View: AP-A Interwell PL
Plant Yates Client: Southern Company Data: Yates AMA, R6

Within Limit

Prediction Limit
Interwell Non-parametric

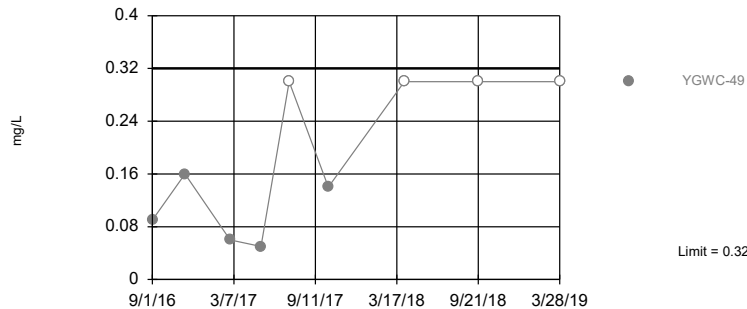


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 88 background values. Annual per-constituent alpha = 0.002497. Individual comparison alpha = 0.00025 (1 of 2). Assumes 4 future values. Seasonality was not detected with 95% confidence.

Constituent: Calcium Analysis Run 4/18/2019 4:53 PM View: AP-A Interwell PL
Plant Yates Client: Southern Company Data: Yates AMA, R6

Within Limit

Prediction Limit
Interwell Non-parametric

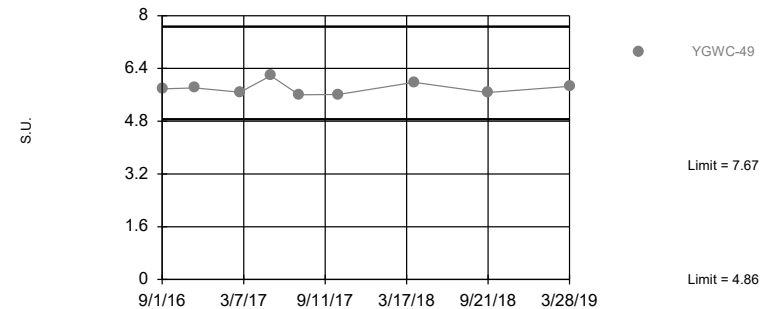


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 104 background values. 88.46% NDs. Annual per-constituent alpha = 0.001816. Individual comparison alpha = 0.0001817 (1 of 2). Assumes 4 future values. Seasonality was not detected with 95% confidence.

Constituent: Fluoride Analysis Run 4/18/2019 4:53 PM View: AP-A Interwell PL
Plant Yates Client: Southern Company Data: Yates AMA, R6

Within Limits

Prediction Limit
Interwell Non-parametric

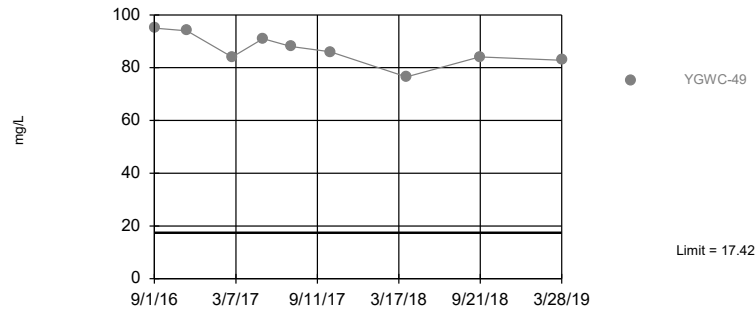


Non-parametric test used in lieu of parametric prediction limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limits are highest and lowest of 104 background values. Annual per-constituent alpha = 0.003631. Individual comparison alpha = 0.0003634 (1 of 2). Assumes 4 future values. Seasonality was not detected with 95% confidence.

Constituent: pH Analysis Run 4/18/2019 4:53 PM View: AP-A Interwell PL
Plant Yates Client: Southern Company Data: Yates AMA, R6

Exceeds Limit: YGWC-49

Prediction Limit
Interwell Parametric

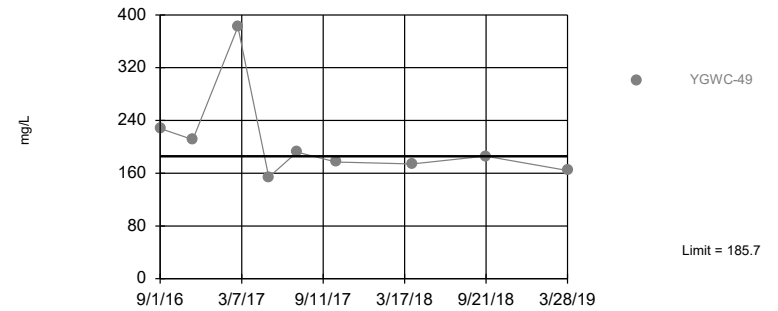


Background Data Summary (based on cube root transformation): Mean=1.516, Std. Dev.=0.5946, n=88, 11.36% NDs. Seasonality was not detected with 95% confidence. Normality test: Shapiro Francia @alpha = 0.01, calculated = 0.967, critical = 0.961. Kappa = 1.81 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.001504. Assumes 4 future values.

Constituent: Sulfate Analysis Run 4/18/2019 4:53 PM View: AP-A Interwell PL
Plant Yates Client: Southern Company Data: Yates AMA, R6

Within Limit

Prediction Limit
Interwell Parametric



Background Data Summary (based on square root transformation): Mean=9.548, Std. Dev.=2.254, n=88. Seasonality was not detected with 95% confidence. Normality test: Shapiro Francia @alpha = 0.01, calculated = 0.9781, critical = 0.961. Kappa = 1.81 (c=7, w=5, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.001504. Assumes 4 future values.

Constituent: Total Dissolved Solids Analysis Run 4/18/2019 4:53 PM View: AP-A Interwell PL
Plant Yates Client: Southern Company Data: Yates AMA, R6

Prediction Limit

Constituent: pH (S.U.) Analysis Run 4/18/2019 4:55 PM View: AP-A Interwell PL

Plant Yates Client: Southern Company Data: Yates AMA, R6

	YGWA-4I (bg)	YGWA-5D (bg)	YGWA-5I (bg)	YGWA-18I (bg)	YGWA-18S (bg)	YGWA-17S (bg)	YGWA-21I (bg)	YGWA-20S (bg)	YGWC-49
6/2/2016	6.36	7.67	5.75						
6/6/2016				6.17	5.71				
6/7/2016						5.62	6.1	5.77	
7/26/2016	6.22	7.66	5.72						
7/27/2016				6.14	5.46	5.59		5.79	
7/28/2016							6.12		
9/1/2016									5.78
9/14/2016	6.23	7.6	5.74						
9/16/2016						5.58			
9/19/2016				6.04	5.59		6.12	5.73	
11/2/2016	6.08	7.35						5.67	
11/3/2016				5.97	5.39	5.59	6.07		
11/4/2016			5.61						
11/15/2016									5.81
1/11/2017				6.05	5.48	5.59			
1/12/2017		7.49	5.71						
1/13/2017	6.19						6.41	5.79	
2/27/2017									5.68
3/1/2017				5.94	5.41				
3/2/2017						5.54			
3/6/2017	6.2						6.34	5.63	
3/7/2017		7.43	5.66						
4/26/2017				5.99	5.4		6.32	5.66	
5/1/2017	6.21	7.22							
5/2/2017			5.65			5.47			
5/9/2017									6.18
6/27/2017		7.32	5.7						
6/28/2017				6	5.36				
6/29/2017	6.21					5.56	6.47	5.85	
7/13/2017									5.6
10/3/2017		7.48	5.79				6.56		
10/4/2017					5.32	5.57		5.83	
10/5/2017	6.16			6.11					
10/11/2017									5.61
4/4/2018									5.98
6/5/2018							6.09		
6/6/2018		7.43						5.86	
6/7/2018	6.12		5.63	5.98					
6/11/2018					5.28	5.58			
9/20/2018									5.67
9/25/2018				5.81	4.86	5.59	6.67	5.84	
9/26/2018	5.84	7.13	5.63						
3/4/2019	6.18	7.46	5.75						
3/5/2019					5.26	5.48	7.22	6.07	
3/6/2019				5.99					
3/28/2019									5.86
4/2/2019						5.74	6.94		
4/3/2019	6.43	7.11	5.63	6.29	5.47			5.71	

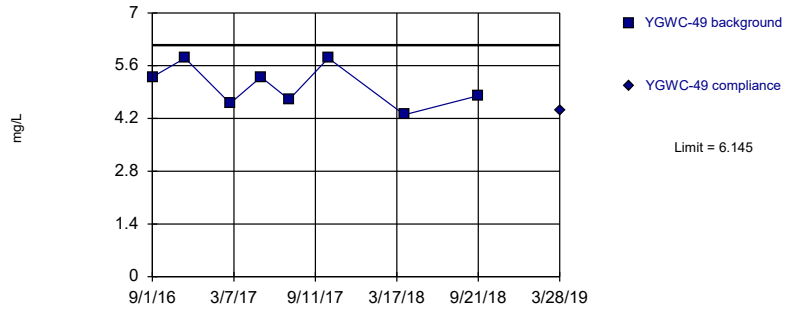
Intrawell Prediction Limit

Plant Yates Client: Southern Company Data: Yates AMA, R6 Printed 4/18/2019, 4:57 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Date</u>	<u>Observ.</u>	<u>Sig.</u>	<u>Bg N</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Chloride (mg/L)	YGWC-49	6.145	3/28/2019	4.4	No	8	0	No	0.001504	Param Intra 1 of 3

Within Limit

Prediction Limit
Intrawell Parametric



Background Data Summary: Mean=5.075, Std. Dev.=0.56, n=8. Insufficient data to test for seasonality; data were not deseasonalized. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9188, critical = 0.749. Kappa = 1.91 (c=7, w=5, 1 of 3, event alpha = 0.05132). Report alpha = 0.001504.

Constituent: Chloride Analysis Run 4/18/2019 4:56 PM View: AP-A Intrawell PL
Plant Yates Client: Southern Company Data: Yates AMA, R6

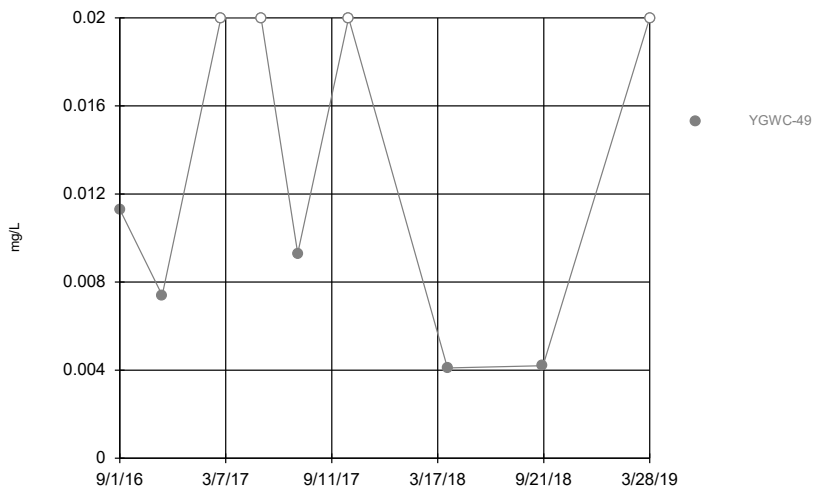
Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 4/18/2019 4:57 PM View: AP-A Intrawell PL

Plant Yates Client: Southern Company Data: Yates AMA, R6

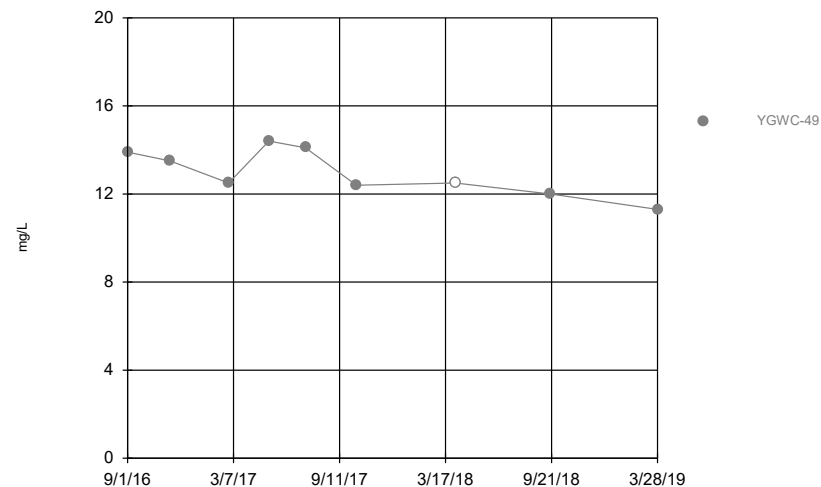
	YGWC-49	YGWC-49
9/1/2016	5.3	
11/15/2016	5.8	
2/27/2017	4.6	
5/9/2017	5.3	
7/13/2017	4.7	
10/11/2017	5.8	
4/4/2018	4.3	
9/20/2018	4.8	
3/28/2019		4.4

Time Series



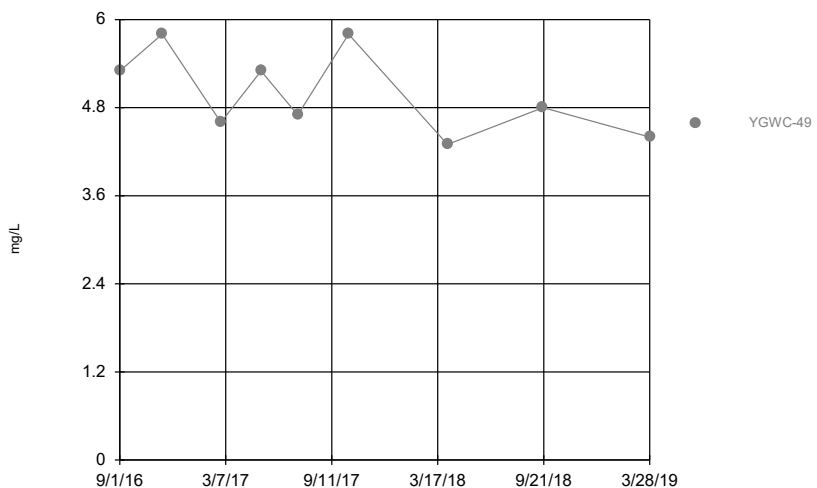
Constituent: Boron Analysis Run 4/18/2019 4:06 PM View: AP-A Time Series
Plant Yates Client: Southern Company Data: Yates AMA, R6

Time Series



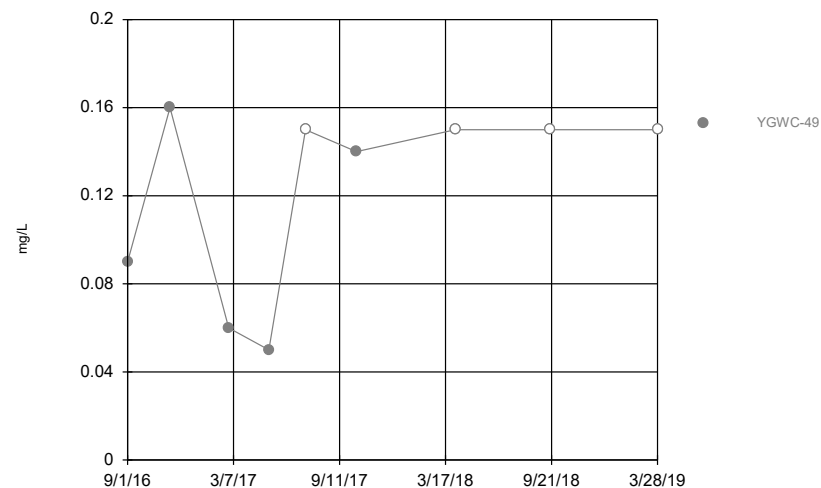
Constituent: Calcium Analysis Run 4/18/2019 4:06 PM View: AP-A Time Series
Plant Yates Client: Southern Company Data: Yates AMA, R6

Time Series



Constituent: Chloride Analysis Run 4/18/2019 4:06 PM View: AP-A Time Series
Plant Yates Client: Southern Company Data: Yates AMA, R6

Time Series



Constituent: Fluoride Analysis Run 4/18/2019 4:06 PM View: AP-A Time Series
Plant Yates Client: Southern Company Data: Yates AMA, R6

Time Series

