

**Georgia Power Company
Plant Yates – Ash Pond 2**

Newnan, Georgia
Coweta County

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



**ATLANTIC COAST
CONSULTING, INC.**

CERTIFICATION STATEMENT

This *2019 First Semiannual Groundwater Monitoring & Corrective Action Report*, Georgia Power Company - Plant Yates Ash Pond 2 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-2 (Site). To specify groundwater monitoring requirements, GA EPD rule 391-3-4-.10(6)(a) incorporates by reference the United States Environmental Protection Agency (US EPA) Coal Combustion Residuals (CCR) Rule 40 Code of Federal Regulations (CFR) § 257 Subpart D. For ease of reference, the US EPA CCR rules are cited within this report.

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

A permit application to comply with EPD Rules was submitted in November 2018 and is currently under review. Semi-annual monitoring for the CCR unit is performed in accordance with the monitoring requirements 40 CFR § 257.90 through § 257.95 of the Federal CCR rule, and the EPD Rules for Solid Waste Management 391-3-4-.10(6)(a). The Federal regulations require annual reporting; this semi-annual report has been prepared to meet state requirements.

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 Well Network and CCR Unit Description

Pursuant to § 257.91, a groundwater monitoring system was installed within the uppermost aquifer at the CCR Unit AP-2. The 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).

Wells suffixed with an “S” are installed in overburden (saprolitic soil), an “I” indicates partially weathered rock (transition zone), and “D” indicates upper bedrock. 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.

The CCR unit AP-2 was established along a topographically low area formed by an unnamed tributary. 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. 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. 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.

Based on results of the *2017 Annual Groundwater and Corrective Action Monitoring Report*, an assessment monitoring program was implemented on January 15, 2018. A notice of assessment monitoring was placed in the operation record on May 15, 2018.

Table 2, Groundwater Sampling Event Summary, summarizes groundwater events conducted at AP-2 during February and March 2019. During the February 2019 event, groundwater samples were collected and analyzed for Appendix IV constituents to meet the requirement of § 257.95(b). During the March 2019 semi-annual sampling event, groundwater samples were collected for both Appendix III and the Appendix IV constituents detected during the February 2019 event. Results of sampling activities conducted in the first half of 2019 are presented in Appendix A, Laboratory Analytical and Field Sampling Reports.

3.0 SAMPLE METHODOLOGY AND ANALYSIS

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 the certified well network and piezometers at the Site. Groundwater elevations recorded during the March 2019 monitoring event are summarized in Table 3, Summary of Groundwater Elevations – March 2019. Groundwater elevation data from March 2019 were 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 west. 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, 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 0.24 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 performed using a dedicated bladder pump in each well. For wells sampled with non-dedicated bladder pumps, the pumps were 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 following chain-of-custody protocol. Stabilization logs for each well during each monitoring event are included in Appendix A.

3.3 Laboratory Analyses

Groundwater samples were collected during two monitoring events performed in the first half of 2019. During the February 2019 sampling event, AP-2 wells were sampled and analyzed for Appendix IV monitoring parameters pursuant to 40 CFR § 257.95(b). Groundwater samples collected during a semiannual event in March 2019 were analyzed for Appendix III and IV parameters detected above the laboratory method detection limit (MDL) during the February 2019 event in accordance with 40 CFR § 257.95(b). Parameters not detected above the laboratory MDL included: antimony, lead, and thallium. Analytical methods used for groundwater sample analysis are listed on the analytical laboratory reports included in Appendix A.

Analytical data collected in monitoring events from the first half of 2019 (February 2019 and March 2019) are summarized in Table 5A, Summary of Groundwater Analytical Data – February 2019, and Table 5B, Summary of Groundwater Analytical Data – March 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

During each sampling event, quality assurance/quality control samples (QA/QC) are collected at a rate of one QA/QC sample per every 10 groundwater samples. Equipment blanks (where non-dedicated sampling equipment is used) and duplicate samples were collected during each sampling event. QA/QC sample data was evaluated during data validation and is 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 § 257.93 and according to the PE certified statistical method for the multi-unit monitoring network. 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

The 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 and guidance as recommended in the Unified Guidance (US EPA, 2009) document. Although Assessment Monitoring has been implemented, 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: boron, calcium, chloride and sulfate. Monitoring results for fluoride, pH, and total dissolved solids 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 groundwater protection standard (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 assessment monitoring event in March 2019 were statistically analyzed in accordance with the PE-certified statistical methods. Appendix III statistical analysis 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 groundwater protection standards. The statistical analysis and comparison to prediction limits are included as Appendix B, Statistical Analyses.

Based on review of the Appendix III statistical analyses presented in Appendix B, Appendix III constituents have not returned to background levels. Exceedances were noted and are presented on the prediction limit summary table included in Appendix B. Because the site is in Assessment Monitoring, no resamples will be collected at this time; however, concentrations will continue to be monitored and will be evaluated during the next subsequent sample event.

4.2.1 First Semi-Annual Assessment Monitoring Event

Based on the confidence interval statistical results presented in Appendix B, no Appendix IV parameters exhibited an SSI where the 95% lower confidence limit (LCL) exceeded the respective GWPS.

5.0 MONITORING PROGRAM STATUS

In accordance with 40 CFR § 257.94(e), an assessment monitoring program has been implemented. No statistical exceedances of a GWPS were identified for Appendix IV parameters. The Site will remain in assessment monitoring due to SSIs for Appendix III parameters.

6.0 CONCLUSIONS AND FUTURE ACTIONS

Statistical evaluations of the groundwater monitoring data for the Site identified no statistical exceedances of a relevant GWPS by an Appendix IV groundwater monitoring parameter.

The next semi-annual assessment monitoring event is planned for the second half of 2019.

7.0 REFERENCES

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US EPA. 2011. *Data Validation Standard Operating Procedures*. Science and Ecosystem Support Division. Region IV. Athens, GA. September.

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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)	Hydraulic Location
YGWA-1I	05/20/2014	53.82	782.66	43.82	792.99	Upgradient
YGWA-1D	05/20/2014	128.60	708.53	78.60	758.86	Upgradient
YGWA-2I	05/20/2014	64.30	801.85	54.30	812.18	Upgradient
YGWA-3I	05/20/2014	59.10	737.23	49.10	747.56	Upgradient
YGWA-3D	05/20/2014	135.20	661.50	85.20	711.83	Upgradient
YGWA-14S	05/20/2014	35.55	713.42	25.55	723.75	Upgradient
YGWA-30I	09/23/2015	59.62	702.97	49.62	713.30	Upgradient
YGWC-26S	10/01/2015	40.25	675.95	30.25	686.28	Downgradient
YGWC-26I	09/30/2015	69.90	646.01	59.90	656.34	Downgradient
YGWC-27S	10/07/2015	39.50	677.16	29.50	687.49	Downgradient
YGWC-27I	10/07/2015	80.15	636.08	70.15	646.41	Downgradient
YGWC-28S	10/05/2015	44.86	673.06	34.86	683.39	Downgradient
YGWC-28I	10/05/2015	70.07	647.82	60.07	658.15	Downgradient
YGWC-29I	10/01/2015	39.15	678.09	29.15	688.42	Downgradient

Notes:

1. ft BTOC indicates feet below top of casing.
2. ft MSL indicates feet mean sea level.
3. Northings and Eastings are GA State Plane West (NAD83).

Table 1B
Non-Network Well Summary

Well ID	Installation Date (mm/dd/yyyy)	Bottom Depth (ft BTOC)	Bottom Elevation (ft MSL)	Depth to Top of Screen (ft MSL)	Top of Screen Elevation (ft MSL)	Purpose
PZ-1S	05/20/2014	36.74	800.00	26.74	810.33	Piezometer
PZ-3S	05/20/2014	42.87	753.34	32.87	763.67	Piezometer
PZ-13S	05/20/2014	43.52	764.37	33.52	774.70	Piezometer
PZ-13I	05/20/2014	60.80	746.92	50.80	757.25	Piezometer
PZ-14I	05/20/2014	53.26	695.85	43.26	706.18	Piezometer
PZ-25S	09/02/2015	56.80	709.70	46.80	720.03	Piezometer
PZ-25I	09/03/2015	84.20	682.05	74.20	692.38	Piezometer
PZ-31S	09/24/2015	34.60	704.19	24.60	714.52	Piezometer

Notes:

1. ft BTOC indicates feet below top of casing.
2. ft MSL indicates feet mean sea level.
3. Northings and Eastings are GA State Plane West (NAD83).

Table 2
2019 Groundwater Sampling Event Summary

Well	Hydraulic Location	Feb. 26-27, 2019	Mar. 28 - Apr. 2, 2019
Purpose of Sampling Event		Assessment	First 2019 Semiannual
YGWA-1I	Upgradient	Scan	A-01
YGWA-1D	Upgradient	Scan	A-01
YGWA-2I	Upgradient	Scan	A-01
YGWA-3I	Upgradient	Scan	A-01
YGWA-3D	Upgradient	Scan	A-01
YGWA-14S	Downgradient	Scan	A-01
YGWA-30I	Downgradient	Scan	A-01
YGWC-26S	Downgradient	Scan	A-01
YGWC-26I	Downgradient	Scan	A-01
YGWC-27S	Downgradient	Scan	A-01
YGWC-27I	Downgradient	Scan	A-01
YGWC-28S	Downgradient	Scan	A-01
YGWC-28I	Downgradient	Scan	A-01
YGWC-29I	Downgradient	Scan	A-01

Notes:

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

Table 3A
Summary of Groundwater Elevations
February 2019

Well ID	TOC Elevation (ft MSL)	Depth-to- Water (ft BTOC)	Groundwater Elevation (ft MSL)
YGWA-1I	836.48	33.73	802.75
YGWA-1D	837.13	45.83	791.30
YGWA-2I	866.15	42.26	823.89
YGWA-3I	796.33	52.70	743.63
YGWA-3D	796.70	30.90	765.80
YGWA-14S	748.77	13.63	735.14
YGWA-30I	762.59	35.83	726.76
YGWC-26S	716.20	17.11	699.09
YGWC-26I	715.91	21.72	694.19
YGWC-27S	716.66	23.74	692.92
YGWC-27I	716.23	24.18	692.05
YGWC-28S	717.92	20.75	697.17
YGWC-28I	717.89	20.72	697.17
YGWC-29I	717.24	24.18	693.06
PZ-1S	836.74	29.34	807.40
PZ-3S	796.21	33.56	762.65
PZ-13S	807.89	33.27	774.62
PZ-13I	807.72	36.47	771.25
PZ-14I	749.11	15.42	733.69
PZ-25S	766.50	34.63	731.87
PZ-25I	766.25	35.90	730.35
PZ-31S	738.79	13.89	724.90

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.

Table 3B
Summary of Groundwater Elevations
March 2019

Well ID	TOC Elevation (ft MSL)	Depth-to- Water (ft BTOC)	Groundwater Elevation (ft MSL)
YGWA-1I	836.48	32.65	803.83
YGWA-1D	837.13	45.08	792.05
YGWA-2I	866.15	41.50	824.65
YGWA-3I	796.33	52.28	744.05
YGWA-3D	796.70	28.63	768.07
YGWA-14S	748.77	13.39	735.38
YGWA-30I	762.59	35.68	726.91
YGWC-26S	716.20	18.39	697.81
YGWC-26I	715.91	22.39	693.52
YGWC-27S	716.66	25.44	691.22
YGWC-27I	716.23	25.98	690.25
YGWC-28S	717.92	21.64	696.28
YGWC-28I	717.89	21.94	695.95
YGWC-29I	717.24	25.28	691.96
PZ-1S	836.74	28.63	808.11
PZ-3S	796.21	32.52	763.69
PZ-13S	807.89	32.15	775.74
PZ-13I	807.72	35.89	771.83
PZ-14I	749.11	15.03	734.08
PZ-25S	766.50	35.04	731.46
PZ-25I	766.25	36.48	729.77
PZ-31S	738.79	14.16	724.63

Notes:

4. ft BTOC indicates feet below top of casing.
5. ft MSL indicates feet mean sea level.
6. Depths to water measured March 25-26, 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

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

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

Maximum Flow Velocity

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

$$v_{\max} = 0.2 \text{ ft/day, or } 87 \text{ ft/year}$$

Notes

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

Table 5A
Summary of Groundwater Analytical Data
February 2019

Substance	MCL/ (SMCL)	YGWA-1I	YGWA-1D	YGWA-2I	YGWA-3I	YGWA-3D	YGWA-14S	YGWA-30I	YGWC-26S	
		2/27/2019	2/27/2019	2/27/2019	2/27/2019	2/27/2019	2/26/2019	2/26/2019	2/27/2019	
Appendix IV	Antimony	0.006	ND	ND	ND	ND	ND	ND	ND	
	Arsenic	0.01	ND	ND (0.0015 J)	ND (0.0010 J)	ND	ND	ND	ND	
	Barium	2	ND (0.0080 J)	ND (0.0074 J)	ND (0.0035 J)	ND (0.0034 J)	ND (0.0059 J)	ND (0.0067 J)	ND (0.0070 J)	0.027
	Beryllium	0.004	ND	ND	ND	ND	ND	ND (0.00016 J)	ND (0.000072 J)	ND (0.00018 J)
	Cadmium	0.005	ND	ND	ND	ND	ND	ND	ND	ND
	Chromium	0.1	ND	ND	ND	ND	ND	ND	ND	ND (0.0055 J)
	Cobalt	N/R	ND (0.00064 J)	ND	ND	ND	ND	ND	0.021	ND (0.0017 J)
	Fluoride	4	ND	ND (0.052 J)	ND (0.12 J)	ND (0.13 J)	0.53	ND	ND	ND
	Lead	0.015	ND	ND	ND	ND	ND	ND	ND	ND
	Lithium	N/R	ND (0.0023 J)	ND (0.0093 J)	ND (0.0011 J)	ND (0.014 J)	ND (0.021 J)	ND	ND (0.0011 J)	ND
	Mercury	0.002	ND (0.000054 J)	ND (0.000051 J)	ND	ND (0.000061 J)	ND (0.000062 J)	ND (0.000061 J)	ND (0.000068 J)	ND (0.000049 J)
	Molybdenum	N/R	ND (0.0078 J)	ND (0.0087 J)	ND (0.0041 J)	ND (0.0027 J)	0.011	ND	ND	ND
	Radium	5	0.637 U	1.21 U	0.635 U	3.67	3.79	0.202 U	0.524 U	1.27
	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
February 2019

Substance	MCL/ (SMCL)	YGWC-26I	YGWC-27S	YGWC-27I	YGWC-28S	YGWC-28I	YGWC-29I	
		2/27/2019	2/27/2019	2/27/2019	2/27/2019	2/27/2019	2/27/2019	
Appendix IV	Antimony	0.006	ND	ND	ND	ND	ND	
	Arsenic	0.01	ND	ND	ND (0.00069 J)	ND	ND	
	Barium	2	0.065	0.096	0.066	0.21	0.086	0.067
	Beryllium	0.004	ND	ND	ND (0.00022 J)	ND	ND	ND
	Cadmium	0.005	ND	ND	ND	ND	ND (0.00014 J)	ND (0.00026 J)
	Chromium	0.1	ND (0.0049 J)	0.015	ND	ND	ND	ND
	Cobalt	N/R	ND	ND (0.0024 J)	0.035	ND (0.00093 J)	ND	ND
	Fluoride	4	ND	ND (0.14 J)	ND	ND (0.22 J)	ND (0.14 J)	ND (0.15 J)
	Lead	0.015	ND	ND	ND	ND	ND	ND
	Lithium	N/R	ND (0.0069 J)	ND	ND (0.0096 J)	ND	ND (0.0063 J)	ND (0.0053 J)
	Mercury	0.002	ND (0.000051 J)	ND (0.000049 J)	ND (0.000054 J)	ND (0.000052 J)	ND (0.000048 J)	ND (0.000047 J)
	Molybdenum	N/R	ND	ND	ND	ND	ND	ND
	Radium	5	0.614 U	1.19	4.69	0.543 U	0.947 U	0.902 U
	Selenium	0.05	ND (0.0020 J)	ND	ND	ND	ND	ND
Thallium	0.002	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
March 2019

Substance	MCL/ (SMCL)	YGWA-1I	YGWA-1D	YGWA-2I	YGWA-3I	YGWA-3D	YGWA-14S	YGWA-30I	YGWC-26S	
		3/28/2019	3/28/2019	3/29/2019	4/1/2019	4/1/2019	3/29/2019	4/1/2019	4/2/2019	
Appendix III	Boron	N/R	ND	ND (0.0050 J)	ND (0.0065 J)	ND	ND	ND (0.014 J)	ND	0.63
	Calcium	N/R	2.2	ND (13.3 J)	ND (23.5 J)	ND (20.4 J)	30.1	1.1	1.3	ND (11.9 J)
	Chloride	(250)	1.5	1.4	1.2	1.1	1.2	4.2	1.7	13.5
	Fluoride	4	ND	ND (0.036 J)	ND (0.13 J)	ND (0.10 J)	0.45	ND	ND	ND
	Sulfate	(250)	4.3	8.0	9.0	8.5	7.2	7.3	ND (0.96 J)	94.5
	TDS	(500)	87.0	87.0	150	ND (19.0 J)	149	63.0	54.0	224
Appendix IV	Arsenic	0.01	ND	ND (0.00072 J)	ND (0.00063 J)	ND	ND	ND	ND	ND
	Barium	2	ND (0.0082 J)	ND (0.0082 J)	ND (0.0039 J)	ND (0.0030 J)	ND (0.0064 J)	ND (0.0066 J)	ND (0.0072 J)	0.027
	Beryllium	0.004	ND	ND	ND	ND	ND	ND (0.00017 J)	ND	ND (0.00015 J)
	Cadmium	0.005	ND	ND	ND	ND	ND	ND	ND	ND
	Chromium	0.1	ND (0.0021 J)	ND	ND	ND	ND	ND	ND	ND (0.0030 J)
	Cobalt	N/R	ND (0.00091 J)	ND	ND	ND	ND	ND	0.022	ND (0.0022 J)
	Lithium	N/R	ND (0.0022 J)	ND (0.013 J)	ND (0.0016 J)	ND (0.013 J)	ND (0.021 J)	ND	ND (0.0010 J)	ND
	Mercury	0.002	ND	ND (0.000040 J)	ND	ND (0.000084 J)	ND (0.000096 J)	ND	ND (0.000082 J)	ND (0.000066 J)
	Molybdenum	N/R	ND (0.0082 J)	ND (0.0092 J)	ND (0.0041 J)	ND (0.0021 J)	0.012	ND	ND	ND
	Radium	5	0.125 U	1.13 U	0.224 U	2.28	4.33	0.000 U	1.02 U	0.708 U
Selenium	0.05	ND	ND	ND	ND	ND	ND (0.0019 J)	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.
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9. Appendix III = indicator parameters evaluated during Detection Monitoring; Appendix IV = parameters evaluated during Assessment Monitoring.

Table 5B
Summary of Groundwater Analytical Data
March 2019

Substance	MCL/ (SMCL)	YGWC-26I	YGWC-27S	YGWC-27I	YGWC-28S	YGWC-28I	YGWC-29I	
		4/2/2019	4/1/2019	4/1/2019	4/2/2019	4/1/2019	4/1/2019	
Appendix III	Boron	N/R	0.90	1.4	2.4	2.9	2.7	0.85
	Calcium	N/R	ND (16.1 J)	38.0	27.4	25.7	33.8	ND (11.9 J)
	Chloride	(250)	17.9	19.7	14.2	19.5	17.2	13.1
	Fluoride	4	ND (0.071 J)	ND (0.088 J)	ND (0.034 J)	ND (0.14 J)	ND (0.078 J)	ND (0.059 J)
	Sulfate	(250)	77.6	18.3	4.1	2.4	8.2	30.4
	TDS	(500)	223	221	198	ND	238	147
Appendix IV	Arsenic	0.01	ND	ND	ND	ND	ND	ND
	Barium	2	0.065	0.099	0.066	0.20	0.088	0.063
	Beryllium	0.004	ND	ND	ND (0.00022 J)	ND	ND	ND
	Cadmium	0.005	ND	ND	ND	ND	ND (0.00043 J)	ND (0.00022 J)
	Chromium	0.1	ND	ND	ND	ND	ND	ND
	Cobalt	N/R	ND	ND (0.0023 J)	0.025	ND (0.0011 J)	ND	ND
	Lithium	N/R	ND (0.0064 J)	ND	ND (0.0082 J)	ND	ND (0.0065 J)	ND (0.0052 J)
	Mercury	0.002	ND (0.000051 J)	ND (0.000041 J)	ND (0.000045 J)	ND	ND	ND (0.000039 J)
	Molybdenum	N/R	ND	ND	ND	ND	ND	ND
	Radium	5	0.840 U	0.777 U	5.00	0.521 U	0.162 U	0.584 U
	Selenium	0.05	ND (0.0017 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).
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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-2 Statistical Method Summary		
Monitoring Well Network	Upgradient Wells	YGWA-1I, YGWA-1D, YGWA-2I, YGWA-3I, YGWA-3D, YGWA-14S, and YGWA-30I
	Downgradient Wells	YGWC-26S, YGWC-26I, YGWC-27I, YGWC-28S, YGWC-28I, and YGWC-29I
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, chloride, and sulfate) or intrawell (fluoride, pH, and TDS) statistical limits are on constituent specific basis, depending on the appropriateness of the method as determined by the Analysis of Variance

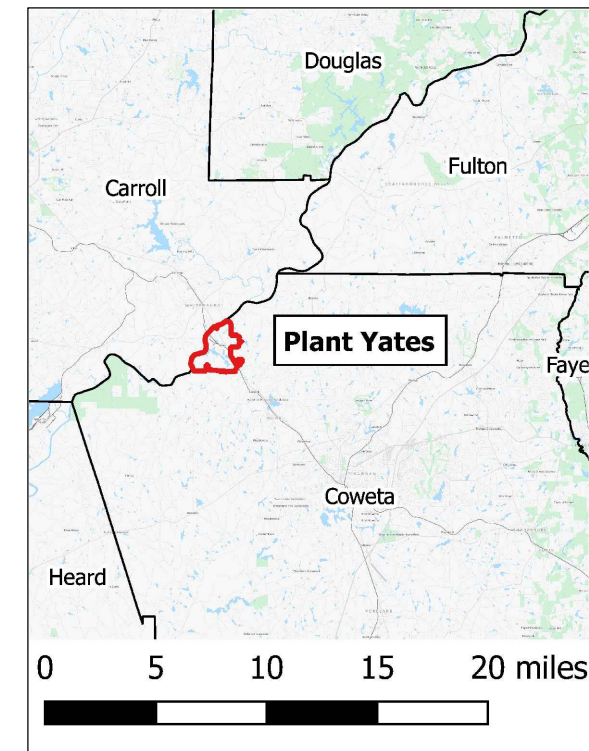
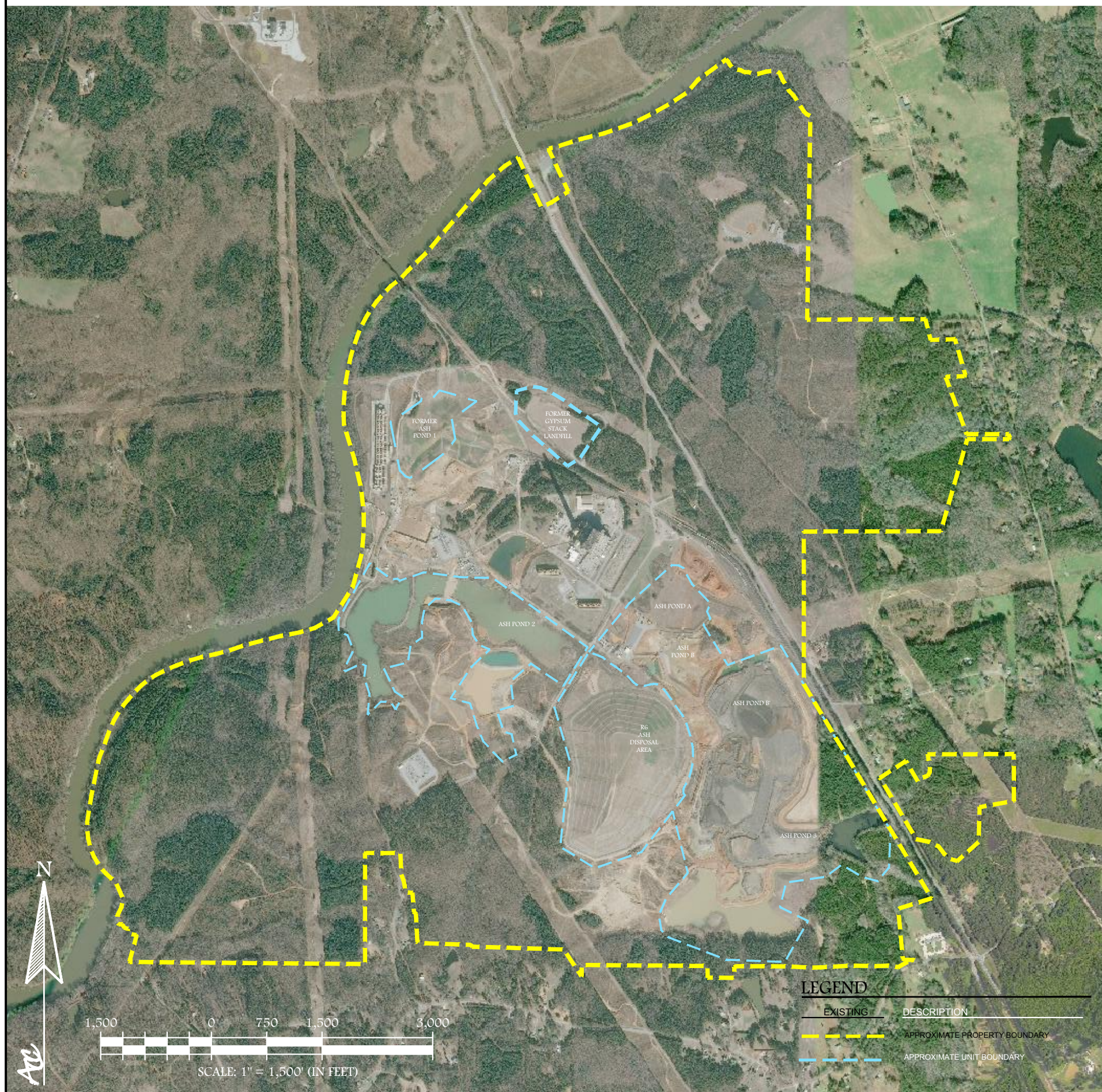
Table 7
Summary of Background Levels and Groundwater Protection Standards

Constituent	Units	Site Background	Federal GWPS	State GWPS
Arsenic	mg/L	0.005	0.01	0.01
Barium	mg/L	0.012	2	2
Beryllium	mg/L	0.003	0.004	0.004
Cadmium	mg/L	0.001	0.005	0.005
Chromium	mg/L	0.01	0.1	0.1
Cobalt	mg/L	0.035	0.035	0.035
Fluoride	mg/L	0.68	4	4
Lithium	mg/L	0.025	0.040	0.025
Mercury	mg/L	0.0005	0.002	0.002
Molybdenum	mg/L	0.014	0.1	0.014
Radium	pCi/L	4.24	5	5
Selenium	mg/L	0.010	0.050	0.050

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

NO.	DATE	DESCRIPTION

Drawn by: MM Checked by: EP

PROJECT NUMBER:
 IO54-110
 July 2019

AP-2 WELL
 LOCATION MAP

FIGURE 2



LEGEND

EXISTING	DESCRIPTION
	RAILROAD
	ACCESS ROAD
	PERMITTED UNIT BOUNDARY

- GROUNDWATER MONITORING WELL
- PIEZOMETER

CONTOUR ELEVATION
 400 0 200 400 800

SCALE: 1" = 1,000' (IN FEET)





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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

Summary of Groundwater Elevations
 Plant Yates
 Ash Pond 2
 March 2019 Sampling Event

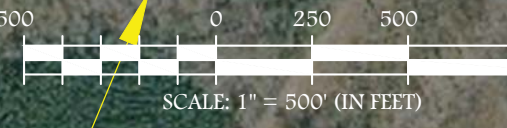
Monitoring Well ID	Total Depth (ft BTOC)	Top of Casing (ft MSL)	Depth to Water (ft BTOC)	Groundwater Elevation (ft MSL)
YGWA-1I	54.93	836.48	32.65	803.83
YGWA-1D	128.60	837.13	45.08	792.05
YGWA-2I	65.74	866.15	41.40	824.75
YGWA-3I	60.00	796.33	52.28	744.05
YGWA-3D	137.10	796.70	28.63	768.07
YGWA-14S	35.82	748.77	13.39	735.38
YGWA-30I	59.65	762.59	35.68	726.91
YGWC-26S	40.10	716.20	18.39	697.81
YGWC-26I	69.71	715.91	22.39	693.52
YGWC-27S	40.26	716.66	25.44	691.22
YGWC-27I	79.84	716.23	25.98	690.25
YGWC-28S	44.85	717.92	21.64	696.28
YGWC-28I	69.89	717.89	21.94	695.95
YGWC-29I	39.46	717.24	25.28	691.96
PZ-01S	36.74	836.74	28.63	803.78
PZ-03S	42.87	796.21	32.52	763.69
PZ-13S	43.52	807.89	32.15	775.74
PZ-13I	60.80	807.72	35.89	771.83
PZ-14I	53.26	749.11	15.03	734.08
PZ-25S	56.80	766.50	35.04	731.46
PZ-25I	84.20	766.25	36.48	729.77
PZ-31S	36.60	738.79	14.16	724.63

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



LEGEND

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



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

March 08, 2019

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

RE: Project: Plant Yates - Ash Ponds 2
Pace Project No.: 2615503

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on February 28, 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 Ponds 2

Pace Project No.: 2615503

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 Ponds 2
Pace Project No.: 2615503

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2615503001	YGWA-14S	Water	02/26/19 13:08	02/28/19 15:05
2615503002	YGWA-30I	Water	02/26/19 14:38	02/28/19 15:05
2615503003	YGWA-3I	Water	02/27/19 12:45	02/28/19 15:05
2615503004	YGWA-3D	Water	02/27/19 11:05	02/28/19 15:05
2615503005	YGWA-2I	Water	02/27/19 10:48	02/28/19 15:05
2615503006	YGWA-1I	Water	02/27/19 12:10	02/28/19 15:05
2615503007	YGWA-1D	Water	02/27/19 10:08	02/28/19 15:05
2615503008	YGWC-26S	Water	02/27/19 12:58	02/28/19 15:05
2615503009	YGWC-26I	Water	02/27/19 14:12	02/28/19 15:05
2615503010	YGWC-27S	Water	02/27/19 14:15	02/28/19 15:05
2615503011	YGWC-27I	Water	02/27/19 15:20	02/28/19 15:05
2615503012	YGWC-28S	Water	02/27/19 17:26	02/28/19 15:05
2615503013	YGWC-28I	Water	02/27/19 15:50	02/28/19 15:05
2615503014	YGWC-29I	Water	02/27/19 14:07	02/28/19 15:05
2615503015	EB-1-2-27-19	Water	02/27/19 12:20	02/28/19 15:05
2615503016	EB-2-2-27-19	Water	02/27/19 14:30	02/28/19 15:05
2615503017	DUP-1	Water	02/27/19 00:00	02/28/19 15:05
2615503018	DUP-2	Water	02/27/19 00:00	02/28/19 15:05
2615503019	FB-1-2-27-19	Water	02/27/19 12:50	02/28/19 15:05
2615503020	FB-2-2-27-19	Water	02/27/19 15:00	02/28/19 15:05

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: Plant Yates - Ash Ponds 2

Pace Project No.: 2615503

Lab ID	Sample ID	Method	Analysts	Analytes Reported
2615503001	YGWA-14S	EPA 6020B	CSW	12
		EPA 7470A	DRB	1
		EPA 300.0	MWB	1
2615503002	YGWA-30I	EPA 6020B	CSW	12
		EPA 7470A	DRB	1
		EPA 300.0	MWB	1
2615503003	YGWA-3I	EPA 6020B	CSW	12
		EPA 7470A	DRB	1
		EPA 300.0	MWB	1
2615503004	YGWA-3D	EPA 6020B	CSW	12
		EPA 7470A	DRB	1
		EPA 300.0	MWB	1
2615503005	YGWA-2I	EPA 6020B	CSW	12
		EPA 7470A	DRB	1
		EPA 300.0	MWB	1
2615503006	YGWA-1I	EPA 6020B	CSW	12
		EPA 7470A	DRB	1
		EPA 300.0	MWB	1
2615503007	YGWA-1D	EPA 6020B	CSW	12
		EPA 7470A	DRB	1
		EPA 300.0	MWB	1
2615503008	YGWC-26S	EPA 6020B	CSW	12
		EPA 7470A	DRB	1
		EPA 300.0	MWB	1
2615503009	YGWC-26I	EPA 6020B	CSW	12
		EPA 7470A	DRB	1
		EPA 300.0	MWB	1
2615503010	YGWC-27S	EPA 6020B	CSW	12
		EPA 7470A	DRB	1
		EPA 300.0	MWB	1
2615503011	YGWC-27I	EPA 6020B	CSW	12
		EPA 7470A	DRB	1
		EPA 300.0	MWB	1
2615503012	YGWC-28S	EPA 6020B	CSW	12
		EPA 7470A	DRB	1
		EPA 300.0	MWB	1
2615503013	YGWC-28I	EPA 6020B	CSW	12

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SAMPLE ANALYTE COUNT

Project: Plant Yates - Ash Ponds 2

Pace Project No.: 2615503

Lab ID	Sample ID	Method	Analysts	Analytes Reported
		EPA 7470A	DRB	1
		EPA 300.0	MWB	1
2615503014	YGWC-29I	EPA 6020B	CSW	12
		EPA 7470A	DRB	1
		EPA 300.0	MWB	1
2615503015	EB-1-2-27-19	EPA 6020B	CSW	12
		EPA 7470A	DRB	1
		EPA 300.0	MWB	1
2615503016	EB-2-2-27-19	EPA 6020B	CSW	12
		EPA 7470A	DRB	1
		EPA 300.0	MWB	1
2615503017	DUP-1	EPA 6020B	CSW	12
		EPA 7470A	DRB	1
		EPA 300.0	MWB	1
2615503018	DUP-2	EPA 6020B	CSW	12
		EPA 7470A	DRB	1
		EPA 300.0	MWB	1
2615503019	FB-1-2-27-19	EPA 6020B	CSW	12
		EPA 7470A	DRB	1
		EPA 300.0	MWB	1
2615503020	FB-2-2-27-19	EPA 6020B	CSW	12
		EPA 7470A	DRB	1
		EPA 300.0	MWB	1

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ANALYTICAL RESULTS

Project: Plant Yates - Ash Ponds 2

Pace Project No.: 2615503

Sample: YGWA-14S		Lab ID: 2615503001		Collected: 02/26/19 13:08		Received: 02/28/19 15:05		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	03/05/19 11:25	03/06/19 13:52	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	03/05/19 11:25	03/06/19 13:52	7440-38-2	
Barium	0.0067J	mg/L	0.010	0.00078	1	03/05/19 11:25	03/06/19 13:52	7440-39-3	
Beryllium	0.00016J	mg/L	0.0030	0.000050	1	03/05/19 11:25	03/06/19 13:52	7440-41-7	
Cadmium	ND	mg/L	0.0010	0.000093	1	03/05/19 11:25	03/06/19 13:52	7440-43-9	
Chromium	ND	mg/L	0.010	0.0016	1	03/05/19 11:25	03/06/19 13:52	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	03/05/19 11:25	03/06/19 13:52	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	03/05/19 11:25	03/06/19 13:52	7439-92-1	
Lithium	ND	mg/L	0.050	0.00097	1	03/05/19 11:25	03/06/19 13:52	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	03/05/19 11:25	03/06/19 13:52	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	03/05/19 11:25	03/06/19 13:52	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	03/05/19 11:25	03/06/19 13:52	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	0.000061J	mg/L	0.00050	0.000036	1	03/04/19 10:46	03/05/19 13:02	7439-97-6	B
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Fluoride	ND	mg/L	0.30	0.029	1		03/05/19 00:57	16984-48-8	

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ANALYTICAL RESULTS

Project: Plant Yates - Ash Ponds 2

Pace Project No.: 2615503

Sample: YGWA-30I		Lab ID: 2615503002		Collected: 02/26/19 14:38		Received: 02/28/19 15:05		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	03/05/19 11:25	03/06/19 14:15	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	03/05/19 11:25	03/06/19 14:15	7440-38-2	
Barium	0.0070J	mg/L	0.010	0.00078	1	03/05/19 11:25	03/06/19 14:15	7440-39-3	
Beryllium	0.000072J	mg/L	0.0030	0.000050	1	03/05/19 11:25	03/06/19 14:15	7440-41-7	
Cadmium	ND	mg/L	0.0010	0.000093	1	03/05/19 11:25	03/06/19 14:15	7440-43-9	
Chromium	ND	mg/L	0.010	0.0016	1	03/05/19 11:25	03/06/19 14:15	7440-47-3	
Cobalt	0.021	mg/L	0.010	0.00052	1	03/05/19 11:25	03/06/19 14:15	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	03/05/19 11:25	03/06/19 14:15	7439-92-1	
Lithium	0.0011J	mg/L	0.050	0.00097	1	03/05/19 11:25	03/06/19 14:15	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	03/05/19 11:25	03/06/19 14:15	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	03/05/19 11:25	03/06/19 14:15	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	03/05/19 11:25	03/06/19 14:15	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	0.000068J	mg/L	0.00050	0.000036	1	03/04/19 10:46	03/05/19 13:04	7439-97-6	B
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Fluoride	ND	mg/L	0.30	0.029	1		03/05/19 01:18	16984-48-8	

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ANALYTICAL RESULTS

Project: Plant Yates - Ash Ponds 2

Pace Project No.: 2615503

Sample: YGWA-3I		Lab ID: 2615503003		Collected: 02/27/19 12:45		Received: 02/28/19 15:05		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	03/05/19 11:25	03/06/19 14:21	7440-36-0		
Arsenic	ND	mg/L	0.0050	0.00057	1	03/05/19 11:25	03/06/19 14:21	7440-38-2		
Barium	0.0034J	mg/L	0.010	0.00078	1	03/05/19 11:25	03/06/19 14:21	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000050	1	03/05/19 11:25	03/06/19 14:21	7440-41-7		
Cadmium	ND	mg/L	0.0010	0.000093	1	03/05/19 11:25	03/06/19 14:21	7440-43-9		
Chromium	ND	mg/L	0.010	0.0016	1	03/05/19 11:25	03/06/19 14:21	7440-47-3		
Cobalt	ND	mg/L	0.010	0.00052	1	03/05/19 11:25	03/06/19 14:21	7440-48-4		
Lead	ND	mg/L	0.0050	0.00027	1	03/05/19 11:25	03/06/19 14:21	7439-92-1		
Lithium	0.014J	mg/L	0.050	0.00097	1	03/05/19 11:25	03/06/19 14:21	7439-93-2		
Molybdenum	0.0027J	mg/L	0.010	0.0019	1	03/05/19 11:25	03/06/19 14:21	7439-98-7		
Selenium	ND	mg/L	0.010	0.0014	1	03/05/19 11:25	03/06/19 14:21	7782-49-2		
Thallium	ND	mg/L	0.0010	0.00014	1	03/05/19 11:25	03/06/19 14:21	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	0.000061J	mg/L	0.00050	0.000036	1	03/04/19 10:46	03/05/19 13:06	7439-97-6	B	
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Fluoride	0.13J	mg/L	0.30	0.029	1		03/05/19 03:01	16984-48-8		

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ANALYTICAL RESULTS

Project: Plant Yates - Ash Ponds 2

Pace Project No.: 2615503

Sample: YGWA-3D		Lab ID: 2615503004		Collected: 02/27/19 11:05		Received: 02/28/19 15:05		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	03/05/19 11:25	03/06/19 14:27	7440-36-0		
Arsenic	ND	mg/L	0.0050	0.00057	1	03/05/19 11:25	03/06/19 14:27	7440-38-2		
Barium	0.0059J	mg/L	0.010	0.00078	1	03/05/19 11:25	03/06/19 14:27	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000050	1	03/05/19 11:25	03/06/19 14:27	7440-41-7		
Cadmium	ND	mg/L	0.0010	0.000093	1	03/05/19 11:25	03/06/19 14:27	7440-43-9		
Chromium	ND	mg/L	0.010	0.0016	1	03/05/19 11:25	03/06/19 14:27	7440-47-3		
Cobalt	ND	mg/L	0.010	0.00052	1	03/05/19 11:25	03/06/19 14:27	7440-48-4		
Lead	ND	mg/L	0.0050	0.00027	1	03/05/19 11:25	03/06/19 14:27	7439-92-1		
Lithium	0.021J	mg/L	0.050	0.00097	1	03/05/19 11:25	03/06/19 14:27	7439-93-2		
Molybdenum	0.011	mg/L	0.010	0.0019	1	03/05/19 11:25	03/06/19 14:27	7439-98-7		
Selenium	ND	mg/L	0.010	0.0014	1	03/05/19 11:25	03/06/19 14:27	7782-49-2		
Thallium	ND	mg/L	0.0010	0.00014	1	03/05/19 11:25	03/06/19 14:27	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	0.000062J	mg/L	0.00050	0.000036	1	03/04/19 10:46	03/05/19 13:09	7439-97-6	B	
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Fluoride	0.53	mg/L	0.30	0.029	1		03/05/19 03:22	16984-48-8		

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ANALYTICAL RESULTS

Project: Plant Yates - Ash Ponds 2

Pace Project No.: 2615503

Sample: YGWA-2I		Lab ID: 2615503005		Collected: 02/27/19 10:48		Received: 02/28/19 15:05		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	03/05/19 11:25	03/06/19 14:32	7440-36-0	
Arsenic	0.0010J	mg/L	0.0050	0.00057	1	03/05/19 11:25	03/06/19 14:32	7440-38-2	
Barium	0.0035J	mg/L	0.010	0.00078	1	03/05/19 11:25	03/06/19 14:32	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	03/05/19 11:25	03/06/19 14:32	7440-41-7	
Cadmium	ND	mg/L	0.0010	0.000093	1	03/05/19 11:25	03/06/19 14:32	7440-43-9	
Chromium	ND	mg/L	0.010	0.0016	1	03/05/19 11:25	03/06/19 14:32	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	03/05/19 11:25	03/06/19 14:32	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	03/05/19 11:25	03/06/19 14:32	7439-92-1	
Lithium	0.0011J	mg/L	0.050	0.00097	1	03/05/19 11:25	03/06/19 14:32	7439-93-2	
Molybdenum	0.0041J	mg/L	0.010	0.0019	1	03/05/19 11:25	03/06/19 14:32	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	03/05/19 11:25	03/06/19 14:32	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	03/05/19 11:25	03/06/19 14:32	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00050	0.000036	1	03/04/19 10:46	03/05/19 13:11	7439-97-6	
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Fluoride	0.12J	mg/L	0.30	0.029	1		03/05/19 03:42	16984-48-8	

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ANALYTICAL RESULTS

Project: Plant Yates - Ash Ponds 2

Pace Project No.: 2615503

Sample: YGWA-1I		Lab ID: 2615503006		Collected: 02/27/19 12:10		Received: 02/28/19 15:05		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	03/05/19 11:25	03/06/19 14:38	7440-36-0		
Arsenic	ND	mg/L	0.0050	0.00057	1	03/05/19 11:25	03/06/19 14:38	7440-38-2		
Barium	0.0080J	mg/L	0.010	0.00078	1	03/05/19 11:25	03/06/19 14:38	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000050	1	03/05/19 11:25	03/06/19 14:38	7440-41-7		
Cadmium	ND	mg/L	0.0010	0.000093	1	03/05/19 11:25	03/06/19 14:38	7440-43-9		
Chromium	ND	mg/L	0.010	0.0016	1	03/05/19 11:25	03/06/19 14:38	7440-47-3		
Cobalt	0.00064J	mg/L	0.010	0.00052	1	03/05/19 11:25	03/06/19 14:38	7440-48-4		
Lead	ND	mg/L	0.0050	0.00027	1	03/05/19 11:25	03/06/19 14:38	7439-92-1		
Lithium	0.0023J	mg/L	0.050	0.00097	1	03/05/19 11:25	03/06/19 14:38	7439-93-2		
Molybdenum	0.0078J	mg/L	0.010	0.0019	1	03/05/19 11:25	03/06/19 14:38	7439-98-7		
Selenium	ND	mg/L	0.010	0.0014	1	03/05/19 11:25	03/06/19 14:38	7782-49-2		
Thallium	ND	mg/L	0.0010	0.00014	1	03/05/19 11:25	03/06/19 14:38	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	0.000054J	mg/L	0.00050	0.000036	1	03/04/19 13:48	03/05/19 13:25	7439-97-6	B	
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Fluoride	ND	mg/L	0.30	0.029	1		03/05/19 04:03	16984-48-8		

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ANALYTICAL RESULTS

Project: Plant Yates - Ash Ponds 2

Pace Project No.: 2615503

Sample: YGWA-1D		Lab ID: 2615503007		Collected: 02/27/19 10:08		Received: 02/28/19 15:05		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	03/05/19 11:25	03/06/19 14:44	7440-36-0		
Arsenic	0.0015J	mg/L	0.0050	0.00057	1	03/05/19 11:25	03/06/19 14:44	7440-38-2		
Barium	0.0074J	mg/L	0.010	0.00078	1	03/05/19 11:25	03/06/19 14:44	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000050	1	03/05/19 11:25	03/06/19 14:44	7440-41-7		
Cadmium	ND	mg/L	0.0010	0.000093	1	03/05/19 11:25	03/06/19 14:44	7440-43-9		
Chromium	ND	mg/L	0.010	0.0016	1	03/05/19 11:25	03/06/19 14:44	7440-47-3		
Cobalt	ND	mg/L	0.010	0.00052	1	03/05/19 11:25	03/06/19 14:44	7440-48-4		
Lead	ND	mg/L	0.0050	0.00027	1	03/05/19 11:25	03/06/19 14:44	7439-92-1		
Lithium	0.0093J	mg/L	0.050	0.00097	1	03/05/19 11:25	03/06/19 14:44	7439-93-2		
Molybdenum	0.0087J	mg/L	0.010	0.0019	1	03/05/19 11:25	03/06/19 14:44	7439-98-7		
Selenium	ND	mg/L	0.010	0.0014	1	03/05/19 11:25	03/06/19 14:44	7782-49-2		
Thallium	ND	mg/L	0.0010	0.00014	1	03/05/19 11:25	03/06/19 14:44	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	0.000051J	mg/L	0.00050	0.000036	1	03/04/19 13:48	03/05/19 13:35	7439-97-6	B	
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Fluoride	0.052J	mg/L	0.30	0.029	1		03/05/19 04:24	16984-48-8		

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ANALYTICAL RESULTS

Project: Plant Yates - Ash Ponds 2

Pace Project No.: 2615503

Sample: YGWC-26S		Lab ID: 2615503008		Collected: 02/27/19 12:58		Received: 02/28/19 15:05		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	03/05/19 11:25	03/06/19 15:03	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	03/05/19 11:25	03/06/19 15:03	7440-38-2	
Barium	0.027	mg/L	0.010	0.00078	1	03/05/19 11:25	03/06/19 15:03	7440-39-3	
Beryllium	0.00018J	mg/L	0.0030	0.000050	1	03/05/19 11:25	03/06/19 15:03	7440-41-7	
Cadmium	ND	mg/L	0.0010	0.000093	1	03/05/19 11:25	03/06/19 15:03	7440-43-9	
Chromium	0.0055J	mg/L	0.010	0.0016	1	03/05/19 11:25	03/06/19 15:03	7440-47-3	
Cobalt	0.0017J	mg/L	0.010	0.00052	1	03/05/19 11:25	03/06/19 15:03	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	03/05/19 11:25	03/06/19 15:03	7439-92-1	
Lithium	ND	mg/L	0.050	0.00097	1	03/05/19 11:25	03/06/19 15:03	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	03/05/19 11:25	03/06/19 15:03	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	03/05/19 11:25	03/06/19 15:03	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	03/05/19 11:25	03/06/19 15:03	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	0.000049J	mg/L	0.00050	0.000036	1	03/04/19 13:48	03/05/19 13:37	7439-97-6	B
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Fluoride	ND	mg/L	0.30	0.029	1		03/05/19 04:45	16984-48-8	

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ANALYTICAL RESULTS

Project: Plant Yates - Ash Ponds 2

Pace Project No.: 2615503

Sample: YGWC-26I		Lab ID: 2615503009		Collected: 02/27/19 14:12		Received: 02/28/19 15:05		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	03/05/19 11:25	03/06/19 15:09	7440-36-0		
Arsenic	ND	mg/L	0.0050	0.00057	1	03/05/19 11:25	03/06/19 15:09	7440-38-2		
Barium	0.065	mg/L	0.010	0.00078	1	03/05/19 11:25	03/06/19 15:09	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000050	1	03/05/19 11:25	03/06/19 15:09	7440-41-7		
Cadmium	ND	mg/L	0.0010	0.000093	1	03/05/19 11:25	03/06/19 15:09	7440-43-9		
Chromium	0.0049J	mg/L	0.010	0.0016	1	03/05/19 11:25	03/06/19 15:09	7440-47-3		
Cobalt	ND	mg/L	0.010	0.00052	1	03/05/19 11:25	03/06/19 15:09	7440-48-4		
Lead	ND	mg/L	0.0050	0.00027	1	03/05/19 11:25	03/06/19 15:09	7439-92-1		
Lithium	0.0069J	mg/L	0.050	0.00097	1	03/05/19 11:25	03/06/19 15:09	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.0019	1	03/05/19 11:25	03/06/19 15:09	7439-98-7		
Selenium	0.0020J	mg/L	0.010	0.0014	1	03/05/19 11:25	03/06/19 15:09	7782-49-2		
Thallium	ND	mg/L	0.0010	0.00014	1	03/05/19 11:25	03/06/19 15:09	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	0.000051J	mg/L	0.00050	0.000036	1	03/04/19 13:48	03/05/19 13:40	7439-97-6	B	
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Fluoride	ND	mg/L	0.30	0.029	1		03/05/19 05:06	16984-48-8		

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ANALYTICAL RESULTS

Project: Plant Yates - Ash Ponds 2

Pace Project No.: 2615503

Sample: YGWC-27S		Lab ID: 2615503010		Collected: 02/27/19 14:15		Received: 02/28/19 15:05		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	03/05/19 11:25	03/06/19 15:14	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	03/05/19 11:25	03/06/19 15:14	7440-38-2	
Barium	0.096	mg/L	0.010	0.00078	1	03/05/19 11:25	03/06/19 15:14	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	03/05/19 11:25	03/06/19 15:14	7440-41-7	
Cadmium	ND	mg/L	0.0010	0.000093	1	03/05/19 11:25	03/06/19 15:14	7440-43-9	
Chromium	0.015	mg/L	0.010	0.0016	1	03/05/19 11:25	03/06/19 15:14	7440-47-3	
Cobalt	0.0024J	mg/L	0.010	0.00052	1	03/05/19 11:25	03/06/19 15:14	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	03/05/19 11:25	03/06/19 15:14	7439-92-1	
Lithium	ND	mg/L	0.050	0.00097	1	03/05/19 11:25	03/06/19 15:14	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	03/05/19 11:25	03/06/19 15:14	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	03/05/19 11:25	03/06/19 15:14	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	03/05/19 11:25	03/06/19 15:14	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	0.000049J	mg/L	0.00050	0.000036	1	03/04/19 13:48	03/05/19 13:42	7439-97-6	B
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Fluoride	0.14J	mg/L	0.30	0.029	1		03/05/19 05:27	16984-48-8	

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ANALYTICAL RESULTS

Project: Plant Yates - Ash Ponds 2

Pace Project No.: 2615503

Sample: YGWC-271		Lab ID: 2615503011		Collected: 02/27/19 15:20		Received: 02/28/19 15:05		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	03/06/19 11:40	03/06/19 18:44	7440-36-0		
Arsenic	0.00069J	mg/L	0.0050	0.00057	1	03/06/19 11:40	03/06/19 18:44	7440-38-2		
Barium	0.066	mg/L	0.010	0.00078	1	03/06/19 11:40	03/06/19 18:44	7440-39-3		
Beryllium	0.00022J	mg/L	0.0030	0.000050	1	03/06/19 11:40	03/06/19 18:44	7440-41-7		
Cadmium	ND	mg/L	0.0010	0.000093	1	03/06/19 11:40	03/06/19 18:44	7440-43-9		
Chromium	ND	mg/L	0.010	0.0016	1	03/06/19 11:40	03/06/19 18:44	7440-47-3		
Cobalt	0.035	mg/L	0.010	0.00052	1	03/06/19 11:40	03/06/19 18:44	7440-48-4		
Lead	ND	mg/L	0.0050	0.00027	1	03/06/19 11:40	03/06/19 18:44	7439-92-1		
Lithium	0.0096J	mg/L	0.050	0.00097	1	03/06/19 11:40	03/06/19 18:44	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.0019	1	03/06/19 11:40	03/06/19 18:44	7439-98-7		
Selenium	ND	mg/L	0.010	0.0014	1	03/06/19 11:40	03/06/19 18:44	7782-49-2		
Thallium	ND	mg/L	0.0010	0.00014	1	03/06/19 11:40	03/06/19 18:44	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	0.000054J	mg/L	0.00050	0.000036	1	03/04/19 13:48	03/05/19 13:49	7439-97-6	B	
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Fluoride	ND	mg/L	0.30	0.029	1		03/05/19 05:48	16984-48-8		

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ANALYTICAL RESULTS

Project: Plant Yates - Ash Ponds 2

Pace Project No.: 2615503

Sample: YGWC-28S		Lab ID: 2615503012		Collected: 02/27/19 17:26		Received: 02/28/19 15:05		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	03/06/19 11:40	03/06/19 18:50	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	03/06/19 11:40	03/06/19 18:50	7440-38-2	
Barium	0.21	mg/L	0.010	0.00078	1	03/06/19 11:40	03/06/19 18:50	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	03/06/19 11:40	03/06/19 18:50	7440-41-7	
Cadmium	ND	mg/L	0.0010	0.000093	1	03/06/19 11:40	03/06/19 18:50	7440-43-9	
Chromium	ND	mg/L	0.010	0.0016	1	03/06/19 11:40	03/06/19 18:50	7440-47-3	
Cobalt	0.00093J	mg/L	0.010	0.00052	1	03/06/19 11:40	03/06/19 18:50	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	03/06/19 11:40	03/06/19 18:50	7439-92-1	
Lithium	ND	mg/L	0.050	0.00097	1	03/06/19 11:40	03/06/19 18:50	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	03/06/19 11:40	03/06/19 18:50	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	03/06/19 11:40	03/06/19 18:50	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	03/06/19 11:40	03/06/19 18:50	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	0.000052J	mg/L	0.00050	0.000036	1	03/04/19 13:48	03/05/19 13:52	7439-97-6	B
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Fluoride	0.22J	mg/L	0.30	0.029	1		03/05/19 04:45	16984-48-8	

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ANALYTICAL RESULTS

Project: Plant Yates - Ash Ponds 2

Pace Project No.: 2615503

Sample: YGWC-28I		Lab ID: 2615503013		Collected: 02/27/19 15:50		Received: 02/28/19 15:05		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	03/06/19 11:40	03/06/19 18:56	7440-36-0		
Arsenic	ND	mg/L	0.0050	0.00057	1	03/06/19 11:40	03/06/19 18:56	7440-38-2		
Barium	0.086	mg/L	0.010	0.00078	1	03/06/19 11:40	03/06/19 18:56	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000050	1	03/06/19 11:40	03/06/19 18:56	7440-41-7		
Cadmium	0.00014J	mg/L	0.0010	0.000093	1	03/06/19 11:40	03/06/19 18:56	7440-43-9		
Chromium	ND	mg/L	0.010	0.0016	1	03/06/19 11:40	03/06/19 18:56	7440-47-3		
Cobalt	ND	mg/L	0.010	0.00052	1	03/06/19 11:40	03/06/19 18:56	7440-48-4		
Lead	ND	mg/L	0.0050	0.00027	1	03/06/19 11:40	03/06/19 18:56	7439-92-1		
Lithium	0.0063J	mg/L	0.050	0.00097	1	03/06/19 11:40	03/06/19 18:56	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.0019	1	03/06/19 11:40	03/06/19 18:56	7439-98-7		
Selenium	ND	mg/L	0.010	0.0014	1	03/06/19 11:40	03/06/19 18:56	7782-49-2		
Thallium	ND	mg/L	0.0010	0.00014	1	03/06/19 11:40	03/06/19 18:56	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	0.000048J	mg/L	0.00050	0.000036	1	03/04/19 13:48	03/05/19 13:54	7439-97-6	B	
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Fluoride	0.14J	mg/L	0.30	0.029	1		03/05/19 05:54	16984-48-8		

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ANALYTICAL RESULTS

Project: Plant Yates - Ash Ponds 2

Pace Project No.: 2615503

Sample: YGWC-29I		Lab ID: 2615503014		Collected: 02/27/19 14:07		Received: 02/28/19 15:05		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	03/06/19 11:40	03/06/19 19:01	7440-36-0		
Arsenic	ND	mg/L	0.0050	0.00057	1	03/06/19 11:40	03/06/19 19:01	7440-38-2		
Barium	0.067	mg/L	0.010	0.00078	1	03/06/19 11:40	03/06/19 19:01	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000050	1	03/06/19 11:40	03/06/19 19:01	7440-41-7		
Cadmium	0.00026J	mg/L	0.0010	0.000093	1	03/06/19 11:40	03/06/19 19:01	7440-43-9		
Chromium	ND	mg/L	0.010	0.0016	1	03/06/19 11:40	03/06/19 19:01	7440-47-3		
Cobalt	ND	mg/L	0.010	0.00052	1	03/06/19 11:40	03/06/19 19:01	7440-48-4		
Lead	ND	mg/L	0.0050	0.00027	1	03/06/19 11:40	03/06/19 19:01	7439-92-1		
Lithium	0.0053J	mg/L	0.050	0.00097	1	03/06/19 11:40	03/06/19 19:01	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.0019	1	03/06/19 11:40	03/06/19 19:01	7439-98-7		
Selenium	ND	mg/L	0.010	0.0014	1	03/06/19 11:40	03/06/19 19:01	7782-49-2		
Thallium	ND	mg/L	0.0010	0.00014	1	03/06/19 11:40	03/06/19 19:01	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	0.000047J	mg/L	0.00050	0.000036	1	03/04/19 13:48	03/05/19 13:56	7439-97-6	B	
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Fluoride	0.15J	mg/L	0.30	0.029	1		03/05/19 06:16	16984-48-8		

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ANALYTICAL RESULTS

Project: Plant Yates - Ash Ponds 2

Pace Project No.: 2615503

Sample: EB-1-2-27-19		Lab ID: 2615503015		Collected: 02/27/19 12:20		Received: 02/28/19 15:05		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	03/06/19 11:40	03/06/19 19:07	7440-36-0		
Arsenic	ND	mg/L	0.0050	0.00057	1	03/06/19 11:40	03/06/19 19:07	7440-38-2		
Barium	ND	mg/L	0.010	0.00078	1	03/06/19 11:40	03/06/19 19:07	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000050	1	03/06/19 11:40	03/06/19 19:07	7440-41-7		
Cadmium	ND	mg/L	0.0010	0.000093	1	03/06/19 11:40	03/06/19 19:07	7440-43-9		
Chromium	ND	mg/L	0.010	0.0016	1	03/06/19 11:40	03/06/19 19:07	7440-47-3		
Cobalt	ND	mg/L	0.010	0.00052	1	03/06/19 11:40	03/06/19 19:07	7440-48-4		
Lead	ND	mg/L	0.0050	0.00027	1	03/06/19 11:40	03/06/19 19:07	7439-92-1		
Lithium	ND	mg/L	0.050	0.00097	1	03/06/19 11:40	03/06/19 19:07	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.0019	1	03/06/19 11:40	03/06/19 19:07	7439-98-7		
Selenium	ND	mg/L	0.010	0.0014	1	03/06/19 11:40	03/06/19 19:07	7782-49-2		
Thallium	ND	mg/L	0.0010	0.00014	1	03/06/19 11:40	03/06/19 19:07	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	0.000047J	mg/L	0.00050	0.000036	1	03/04/19 13:48	03/05/19 13:59	7439-97-6	B	
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Fluoride	0.11J	mg/L	0.30	0.029	1		03/05/19 06:39	16984-48-8		

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ANALYTICAL RESULTS

Project: Plant Yates - Ash Ponds 2

Pace Project No.: 2615503

Sample: EB-2-2-27-19		Lab ID: 2615503016		Collected: 02/27/19 14:30		Received: 02/28/19 15:05		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	03/06/19 11:40	03/06/19 19:13	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	03/06/19 11:40	03/06/19 19:13	7440-38-2	
Barium	ND	mg/L	0.010	0.00078	1	03/06/19 11:40	03/06/19 19:13	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	03/06/19 11:40	03/06/19 19:13	7440-41-7	
Cadmium	ND	mg/L	0.0010	0.000093	1	03/06/19 11:40	03/06/19 19:13	7440-43-9	
Chromium	ND	mg/L	0.010	0.0016	1	03/06/19 11:40	03/06/19 19:13	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	03/06/19 11:40	03/06/19 19:13	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	03/06/19 11:40	03/06/19 19:13	7439-92-1	
Lithium	ND	mg/L	0.050	0.00097	1	03/06/19 11:40	03/06/19 19:13	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	03/06/19 11:40	03/06/19 19:13	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	03/06/19 11:40	03/06/19 19:13	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	03/06/19 11:40	03/06/19 19:13	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	0.000051J	mg/L	0.00050	0.000036	1	03/04/19 13:48	03/05/19 14:01	7439-97-6	B
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Fluoride	0.11J	mg/L	0.30	0.029	1		03/05/19 07:02	16984-48-8	

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ANALYTICAL RESULTS

Project: Plant Yates - Ash Ponds 2

Pace Project No.: 2615503

Sample: DUP-1		Lab ID: 2615503017		Collected: 02/27/19 00:00		Received: 02/28/19 15:05		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	03/06/19 11:40	03/06/19 19:18	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	03/06/19 11:40	03/06/19 19:18	7440-38-2	
Barium	0.064	mg/L	0.010	0.00078	1	03/06/19 11:40	03/06/19 19:18	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	03/06/19 11:40	03/06/19 19:18	7440-41-7	
Cadmium	ND	mg/L	0.0010	0.000093	1	03/06/19 11:40	03/06/19 19:18	7440-43-9	
Chromium	ND	mg/L	0.010	0.0016	1	03/06/19 11:40	03/06/19 19:18	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	03/06/19 11:40	03/06/19 19:18	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	03/06/19 11:40	03/06/19 19:18	7439-92-1	
Lithium	0.0064J	mg/L	0.050	0.00097	1	03/06/19 11:40	03/06/19 19:18	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	03/06/19 11:40	03/06/19 19:18	7439-98-7	
Selenium	0.0024J	mg/L	0.010	0.0014	1	03/06/19 11:40	03/06/19 19:18	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	03/06/19 11:40	03/06/19 19:18	7440-28-0	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	0.000058J	mg/L	0.00050	0.000036	1	03/04/19 13:48	03/05/19 14:03	7439-97-6	B
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Fluoride	0.14J	mg/L	0.30	0.029	1		03/05/19 07:25	16984-48-8	

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ANALYTICAL RESULTS

Project: Plant Yates - Ash Ponds 2

Pace Project No.: 2615503

Sample: DUP-2		Lab ID: 2615503018		Collected: 02/27/19 00:00		Received: 02/28/19 15:05		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	03/06/19 11:40	03/06/19 19:24	7440-36-0		
Arsenic	ND	mg/L	0.0050	0.00057	1	03/06/19 11:40	03/06/19 19:24	7440-38-2		
Barium	0.23	mg/L	0.010	0.00078	1	03/06/19 11:40	03/06/19 19:24	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000050	1	03/06/19 11:40	03/06/19 19:24	7440-41-7		
Cadmium	ND	mg/L	0.0010	0.000093	1	03/06/19 11:40	03/06/19 19:24	7440-43-9		
Chromium	ND	mg/L	0.010	0.0016	1	03/06/19 11:40	03/06/19 19:24	7440-47-3		
Cobalt	0.00096J	mg/L	0.010	0.00052	1	03/06/19 11:40	03/06/19 19:24	7440-48-4		
Lead	ND	mg/L	0.0050	0.00027	1	03/06/19 11:40	03/06/19 19:24	7439-92-1		
Lithium	ND	mg/L	0.050	0.00097	1	03/06/19 11:40	03/06/19 19:24	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.0019	1	03/06/19 11:40	03/06/19 19:24	7439-98-7		
Selenium	ND	mg/L	0.010	0.0014	1	03/06/19 11:40	03/06/19 19:24	7782-49-2		
Thallium	ND	mg/L	0.0010	0.00014	1	03/06/19 11:40	03/06/19 19:24	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	0.000048J	mg/L	0.00050	0.000036	1	03/04/19 13:48	03/05/19 14:06	7439-97-6	B	
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Fluoride	0.22J	mg/L	0.30	0.029	1		03/05/19 07:48	16984-48-8		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Yates - Ash Ponds 2

Pace Project No.: 2615503

Sample: FB-1-2-27-19		Lab ID: 2615503019		Collected: 02/27/19 12:50		Received: 02/28/19 15:05		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	03/06/19 11:40	03/06/19 19:41	7440-36-0		
Arsenic	ND	mg/L	0.0050	0.00057	1	03/06/19 11:40	03/06/19 19:41	7440-38-2		
Barium	ND	mg/L	0.010	0.00078	1	03/06/19 11:40	03/06/19 19:41	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000050	1	03/06/19 11:40	03/07/19 13:43	7440-41-7		
Cadmium	ND	mg/L	0.0010	0.000093	1	03/06/19 11:40	03/06/19 19:41	7440-43-9		
Chromium	ND	mg/L	0.010	0.0016	1	03/06/19 11:40	03/06/19 19:41	7440-47-3		
Cobalt	ND	mg/L	0.010	0.00052	1	03/06/19 11:40	03/06/19 19:41	7440-48-4		
Lead	ND	mg/L	0.0050	0.00027	1	03/06/19 11:40	03/06/19 19:41	7439-92-1		
Lithium	ND	mg/L	0.050	0.00097	1	03/06/19 11:40	03/06/19 19:41	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.0019	1	03/06/19 11:40	03/06/19 19:41	7439-98-7		
Selenium	ND	mg/L	0.010	0.0014	1	03/06/19 11:40	03/06/19 19:41	7782-49-2		
Thallium	ND	mg/L	0.0010	0.00014	1	03/06/19 11:40	03/06/19 19:41	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	0.000049J	mg/L	0.00050	0.000036	1	03/04/19 13:48	03/05/19 14:08	7439-97-6	B	
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Fluoride	0.11J	mg/L	0.30	0.029	1		03/05/19 08:11	16984-48-8		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Yates - Ash Ponds 2

Pace Project No.: 2615503

Sample: FB-2-2-27-19		Lab ID: 2615503020		Collected: 02/27/19 15:00		Received: 02/28/19 15:05		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	03/06/19 11:40	03/06/19 19:47	7440-36-0		
Arsenic	ND	mg/L	0.0050	0.00057	1	03/06/19 11:40	03/06/19 19:47	7440-38-2		
Barium	ND	mg/L	0.010	0.00078	1	03/06/19 11:40	03/06/19 19:47	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000050	1	03/06/19 11:40	03/07/19 13:49	7440-41-7		
Cadmium	ND	mg/L	0.0010	0.000093	1	03/06/19 11:40	03/06/19 19:47	7440-43-9		
Chromium	ND	mg/L	0.010	0.0016	1	03/06/19 11:40	03/06/19 19:47	7440-47-3		
Cobalt	ND	mg/L	0.010	0.00052	1	03/06/19 11:40	03/06/19 19:47	7440-48-4		
Lead	ND	mg/L	0.0050	0.00027	1	03/06/19 11:40	03/06/19 19:47	7439-92-1		
Lithium	ND	mg/L	0.050	0.00097	1	03/06/19 11:40	03/06/19 19:47	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.0019	1	03/06/19 11:40	03/06/19 19:47	7439-98-7		
Selenium	ND	mg/L	0.010	0.0014	1	03/06/19 11:40	03/06/19 19:47	7782-49-2		
Thallium	ND	mg/L	0.0010	0.00014	1	03/06/19 11:40	03/06/19 19:47	7440-28-0		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	0.000050J	mg/L	0.00050	0.000036	1	03/04/19 13:48	03/05/19 14:10	7439-97-6	B	
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Fluoride	0.10J	mg/L	0.30	0.029	1		03/05/19 10:05	16984-48-8		

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Yates - Ash Ponds 2

Pace Project No.: 2615503

QC Batch: 23510 Analysis Method: EPA 7470A
 QC Batch Method: EPA 7470A Analysis Description: 7470 Mercury
 Associated Lab Samples: 2615503001, 2615503002, 2615503003, 2615503004, 2615503005

METHOD BLANK: 105333 Matrix: Water
 Associated Lab Samples: 2615503001, 2615503002, 2615503003, 2615503004, 2615503005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	0.000058J	0.00050	0.000036	03/05/19 12:05	

LABORATORY CONTROL SAMPLE: 105334

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.0025	0.0027	108	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 105335 105336

Parameter	Units	MS		MSD		% Rec		% Rec	Limits	Max		Qual
		2615468001 Result	Spike Conc.	Spike Conc.	Result	Result	RPD			RPD		
Mercury	mg/L	0.000074J	0.0025	0.0025	0.0025	0.0025	99	97	75-125	2	20	

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QUALITY CONTROL DATA

Project: Plant Yates - Ash Ponds 2

Pace Project No.: 2615503

QC Batch: 23522 Analysis Method: EPA 7470A
 QC Batch Method: EPA 7470A Analysis Description: 7470 Mercury
 Associated Lab Samples: 2615503006, 2615503007, 2615503008, 2615503009, 2615503010, 2615503011, 2615503012, 2615503013,
 2615503014, 2615503015, 2615503016, 2615503017, 2615503018, 2615503019, 2615503020

METHOD BLANK: 105366 Matrix: Water
 Associated Lab Samples: 2615503006, 2615503007, 2615503008, 2615503009, 2615503010, 2615503011, 2615503012, 2615503013,
 2615503014, 2615503015, 2615503016, 2615503017, 2615503018, 2615503019, 2615503020

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	0.000049J	0.00050	0.000036	03/05/19 13:21	

LABORATORY CONTROL SAMPLE: 105367

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.0025	0.0026	105	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 105368 105369

Parameter	Units	2615503006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	mg/L	0.000054J	0.0025	0.0025	0.0028	0.0027	110	107	75-125	3	20	

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QUALITY CONTROL DATA

Project: Plant Yates - Ash Ponds 2

Pace Project No.: 2615503

QC Batch: 23567 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020B MET
Associated Lab Samples: 2615503001, 2615503002, 2615503003, 2615503004, 2615503005, 2615503006, 2615503007, 2615503008, 2615503009, 2615503010

METHOD BLANK: 105477 Matrix: Water
Associated Lab Samples: 2615503001, 2615503002, 2615503003, 2615503004, 2615503005, 2615503006, 2615503007, 2615503008, 2615503009, 2615503010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00078	03/06/19 12:37	
Arsenic	mg/L	ND	0.0050	0.00057	03/06/19 12:37	
Barium	mg/L	ND	0.010	0.00078	03/06/19 12:37	
Beryllium	mg/L	ND	0.0030	0.000050	03/06/19 12:37	
Cadmium	mg/L	ND	0.0010	0.000093	03/06/19 12:37	
Chromium	mg/L	ND	0.010	0.0016	03/06/19 12:37	
Cobalt	mg/L	ND	0.010	0.00052	03/06/19 12:37	
Lead	mg/L	ND	0.0050	0.00027	03/06/19 12:37	
Lithium	mg/L	ND	0.050	0.00097	03/06/19 12:37	
Molybdenum	mg/L	ND	0.010	0.0019	03/06/19 12:37	
Selenium	mg/L	ND	0.010	0.0014	03/06/19 12:37	
Thallium	mg/L	ND	0.0010	0.00014	03/06/19 12:37	

LABORATORY CONTROL SAMPLE: 105478

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.10	100	80-120	
Arsenic	mg/L	0.1	0.097	97	80-120	
Barium	mg/L	0.1	0.098	98	80-120	
Beryllium	mg/L	0.1	0.098	98	80-120	
Cadmium	mg/L	0.1	0.10	100	80-120	
Chromium	mg/L	0.1	0.10	103	80-120	
Cobalt	mg/L	0.1	0.10	102	80-120	
Lead	mg/L	0.1	0.10	100	80-120	
Lithium	mg/L	0.1	0.099	99	80-120	
Molybdenum	mg/L	0.1	0.10	101	80-120	
Selenium	mg/L	0.1	0.10	101	80-120	
Thallium	mg/L	0.1	0.10	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 105479 105480

Parameter	Units	2615503001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	mg/L	ND	0.1	0.1	0.10	0.098	100	98	75-125	2	20	
Barium	mg/L	0.0067J	0.1	0.1	0.11	0.11	104	104	75-125	0	20	
Beryllium	mg/L	0.00016J	0.1	0.1	0.096	0.098	96	98	75-125	2	20	

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QUALITY CONTROL DATA

Project: Plant Yates - Ash Ponds 2

Pace Project No.: 2615503

Parameter	Units	MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 105479		105480		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	RPD	Qual
		2615503001 Result	MS Spike Conc.	MSD Spike Conc.									
Cadmium	mg/L	ND	0.1	0.1	0.10	0.10	103	100	75-125	2	20		
Chromium	mg/L	ND	0.1	0.1	0.10	0.10	104	103	75-125	1	20		
Cobalt	mg/L	ND	0.1	0.1	0.10	0.10	103	100	75-125	3	20		
Lead	mg/L	ND	0.1	0.1	0.10	0.10	102	101	75-125	1	20		
Lithium	mg/L	ND	0.1	0.1	0.099	0.097	99	97	75-125	2	20		
Molybdenum	mg/L	ND	0.1	0.1	0.10	0.10	105	105	75-125	0	20		
Selenium	mg/L	ND	0.1	0.1	0.11	0.10	104	100	75-125	4	20		
Thallium	mg/L	ND	0.1	0.1	0.10	0.10	101	101	75-125	0	20		

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QUALITY CONTROL DATA

Project: Plant Yates - Ash Ponds 2

Pace Project No.: 2615503

QC Batch: 23687 Analysis Method: EPA 6020B
 QC Batch Method: EPA 3005A Analysis Description: 6020B MET
 Associated Lab Samples: 2615503011, 2615503012, 2615503013, 2615503014, 2615503015, 2615503016, 2615503017, 2615503018, 2615503019, 2615503020

METHOD BLANK: 106016 Matrix: Water
 Associated Lab Samples: 2615503011, 2615503012, 2615503013, 2615503014, 2615503015, 2615503016, 2615503017, 2615503018, 2615503019, 2615503020

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00078	03/06/19 18:24	
Arsenic	mg/L	ND	0.0050	0.00057	03/06/19 18:24	
Barium	mg/L	ND	0.010	0.00078	03/06/19 18:24	
Beryllium	mg/L	ND	0.0030	0.000050	03/06/19 18:24	
Cadmium	mg/L	ND	0.0010	0.000093	03/06/19 18:24	
Chromium	mg/L	ND	0.010	0.0016	03/06/19 18:24	
Cobalt	mg/L	ND	0.010	0.00052	03/06/19 18:24	
Lead	mg/L	ND	0.0050	0.00027	03/06/19 18:24	
Lithium	mg/L	ND	0.050	0.00097	03/06/19 18:24	
Molybdenum	mg/L	ND	0.010	0.0019	03/06/19 18:24	
Selenium	mg/L	ND	0.010	0.0014	03/06/19 18:24	
Thallium	mg/L	ND	0.0010	0.00014	03/06/19 18:24	

LABORATORY CONTROL SAMPLE: 106017

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.11	108	80-120	
Arsenic	mg/L	0.1	0.10	101	80-120	
Barium	mg/L	0.1	0.10	104	80-120	
Beryllium	mg/L	0.1	0.10	101	80-120	
Cadmium	mg/L	0.1	0.10	102	80-120	
Chromium	mg/L	0.1	0.10	102	80-120	
Cobalt	mg/L	0.1	0.10	102	80-120	
Lead	mg/L	0.1	0.10	102	80-120	
Lithium	mg/L	0.1	0.10	102	80-120	
Molybdenum	mg/L	0.1	0.10	105	80-120	
Selenium	mg/L	0.1	0.10	104	80-120	
Thallium	mg/L	0.1	0.10	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 106018 106019

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		2615551001 Result	Spike Conc.	Spike Conc.	MS Result							MSD Result
Antimony	mg/L	ND	0.1	0.1	0.10	0.11	105	107	75-125	2	20	
Arsenic	mg/L	0.0058	0.1	0.1	0.11	0.11	101	103	75-125	2	20	
Barium	mg/L	0.053	0.1	0.1	0.15	0.16	102	106	75-125	3	20	
Beryllium	mg/L	ND	0.1	0.1	0.10	0.10	101	101	75-125	0	20	

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QUALITY CONTROL DATA

Project: Plant Yates - Ash Ponds 2

Pace Project No.: 2615503

Parameter	Units	106018		106019		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result							
Cadmium	mg/L	ND	0.1	0.1	0.099	0.10	99	100	75-125	2	20	
Chromium	mg/L	ND	0.1	0.1	0.10	0.10	102	102	75-125	0	20	
Cobalt	mg/L	ND	0.1	0.1	0.099	0.10	99	100	75-125	1	20	
Lead	mg/L	ND	0.1	0.1	0.098	0.098	98	98	75-125	0	20	
Lithium	mg/L	0.0017J	0.1	0.1	0.096	0.095	95	94	75-125	1	20	
Molybdenum	mg/L	0.0035J	0.1	0.1	0.10	0.11	101	104	75-125	3	20	
Selenium	mg/L	ND	0.1	0.1	0.10	0.11	103	106	75-125	3	20	
Thallium	mg/L	ND	0.1	0.1	0.098	0.10	98	100	75-125	2	20	

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QUALITY CONTROL DATA

Project: Plant Yates - Ash Ponds 2
Pace Project No.: 2615503

QC Batch: 23494 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 2615503001, 2615503002, 2615503003, 2615503004, 2615503005, 2615503006, 2615503007, 2615503008, 2615503009, 2615503010, 2615503011

METHOD BLANK: 105287 Matrix: Water
Associated Lab Samples: 2615503001, 2615503002, 2615503003, 2615503004, 2615503005, 2615503006, 2615503007, 2615503008, 2615503009, 2615503010, 2615503011

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Fluoride	mg/L	ND	0.30	0.029	03/04/19 21:30	

LABORATORY CONTROL SAMPLE: 105288

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Fluoride	mg/L	10	9.5	95	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 105374 105375

Parameter	Units	2615499001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Fluoride	mg/L	ND	10	10	8.5	8.9	85	89	90-110	5	15	M1

MATRIX SPIKE SAMPLE: 105376

Parameter	Units	2615499002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Fluoride	mg/L	0.26J	10	9.9	96	90-110	

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QUALITY CONTROL DATA

Project: Plant Yates - Ash Ponds 2

Pace Project No.: 2615503

QC Batch: 23574 Analysis Method: EPA 300.0
 QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
 Associated Lab Samples: 2615503012, 2615503013, 2615503014, 2615503015, 2615503016, 2615503017, 2615503018, 2615503019, 2615503020

METHOD BLANK: 105501 Matrix: Water
 Associated Lab Samples: 2615503012, 2615503013, 2615503014, 2615503015, 2615503016, 2615503017, 2615503018, 2615503019, 2615503020

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Fluoride	mg/L	ND	0.30	0.029	03/05/19 03:59	

LABORATORY CONTROL SAMPLE: 105502

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Fluoride	mg/L	10	10.3	103	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 105503 105504

Parameter	Units	2615503012 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Fluoride	mg/L	0.22J	10	10	10.1	10.1	99	99	90-110	0	15	

MATRIX SPIKE SAMPLE: 105505

Parameter	Units	2615503013 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Fluoride	mg/L	0.14J	10	9.7	96	90-110	

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QUALIFIERS

Project: Plant Yates - Ash Ponds 2

Pace Project No.: 2615503

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

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

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

B Analyte was detected in the associated method blank.

M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Yates - Ash Ponds 2
Pace Project No.: 2615503

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2615503001	YGWA-14S	EPA 3005A	23567	EPA 6020B	23647
2615503002	YGWA-30I	EPA 3005A	23567	EPA 6020B	23647
2615503003	YGWA-3I	EPA 3005A	23567	EPA 6020B	23647
2615503004	YGWA-3D	EPA 3005A	23567	EPA 6020B	23647
2615503005	YGWA-2I	EPA 3005A	23567	EPA 6020B	23647
2615503006	YGWA-1I	EPA 3005A	23567	EPA 6020B	23647
2615503007	YGWA-1D	EPA 3005A	23567	EPA 6020B	23647
2615503008	YGWC-26S	EPA 3005A	23567	EPA 6020B	23647
2615503009	YGWC-26I	EPA 3005A	23567	EPA 6020B	23647
2615503010	YGWC-27S	EPA 3005A	23567	EPA 6020B	23647
2615503011	YGWC-27I	EPA 3005A	23687	EPA 6020B	23738
2615503012	YGWC-28S	EPA 3005A	23687	EPA 6020B	23738
2615503013	YGWC-28I	EPA 3005A	23687	EPA 6020B	23738
2615503014	YGWC-29I	EPA 3005A	23687	EPA 6020B	23738
2615503015	EB-1-2-27-19	EPA 3005A	23687	EPA 6020B	23738
2615503016	EB-2-2-27-19	EPA 3005A	23687	EPA 6020B	23738
2615503017	DUP-1	EPA 3005A	23687	EPA 6020B	23738
2615503018	DUP-2	EPA 3005A	23687	EPA 6020B	23738
2615503019	FB-1-2-27-19	EPA 3005A	23687	EPA 6020B	23738
2615503020	FB-2-2-27-19	EPA 3005A	23687	EPA 6020B	23738
2615503001	YGWA-14S	EPA 7470A	23510	EPA 7470A	23534
2615503002	YGWA-30I	EPA 7470A	23510	EPA 7470A	23534
2615503003	YGWA-3I	EPA 7470A	23510	EPA 7470A	23534
2615503004	YGWA-3D	EPA 7470A	23510	EPA 7470A	23534
2615503005	YGWA-2I	EPA 7470A	23510	EPA 7470A	23534
2615503006	YGWA-1I	EPA 7470A	23522	EPA 7470A	23552
2615503007	YGWA-1D	EPA 7470A	23522	EPA 7470A	23552
2615503008	YGWC-26S	EPA 7470A	23522	EPA 7470A	23552
2615503009	YGWC-26I	EPA 7470A	23522	EPA 7470A	23552
2615503010	YGWC-27S	EPA 7470A	23522	EPA 7470A	23552
2615503011	YGWC-27I	EPA 7470A	23522	EPA 7470A	23552
2615503012	YGWC-28S	EPA 7470A	23522	EPA 7470A	23552
2615503013	YGWC-28I	EPA 7470A	23522	EPA 7470A	23552
2615503014	YGWC-29I	EPA 7470A	23522	EPA 7470A	23552
2615503015	EB-1-2-27-19	EPA 7470A	23522	EPA 7470A	23552
2615503016	EB-2-2-27-19	EPA 7470A	23522	EPA 7470A	23552
2615503017	DUP-1	EPA 7470A	23522	EPA 7470A	23552
2615503018	DUP-2	EPA 7470A	23522	EPA 7470A	23552
2615503019	FB-1-2-27-19	EPA 7470A	23522	EPA 7470A	23552
2615503020	FB-2-2-27-19	EPA 7470A	23522	EPA 7470A	23552
2615503001	YGWA-14S	EPA 300.0	23494		
2615503002	YGWA-30I	EPA 300.0	23494		
2615503003	YGWA-3I	EPA 300.0	23494		
2615503004	YGWA-3D	EPA 300.0	23494		
2615503005	YGWA-2I	EPA 300.0	23494		
2615503006	YGWA-1I	EPA 300.0	23494		
2615503007	YGWA-1D	EPA 300.0	23494		

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Yates - Ash Ponds 2

Pace Project No.: 2615503

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2615503008	YGWC-26S	EPA 300.0	23494		
2615503009	YGWC-26I	EPA 300.0	23494		
2615503010	YGWC-27S	EPA 300.0	23494		
2615503011	YGWC-27I	EPA 300.0	23494		
2615503012	YGWC-28S	EPA 300.0	23574		
2615503013	YGWC-28I	EPA 300.0	23574		
2615503014	YGWC-29I	EPA 300.0	23574		
2615503015	EB-1-2-27-19	EPA 300.0	23574		
2615503016	EB-2-2-27-19	EPA 300.0	23574		
2615503017	DUP-1	EPA 300.0	23574		
2615503018	DUP-2	EPA 300.0	23574		
2615503019	FB-1-2-27-19	EPA 300.0	23574		
2615503020	FB-2-2-27-19	EPA 300.0	23574		

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

CHAIN OF CUSTODY RECORD

CLIENT NAME:		ANALYSIS REQUESTED		CONTAINER TYPE		PRESERVATION	
Georgia Power		P P P P P P P P		P - PLASTIC		1 - HCl, ≤6°C	
CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER:		CONTAINER TYPE:		A - AMBER GLASS		2 - H ₂ SO ₄ , ≤6°C	
241 Ralph McGill Blvd SE B10165		# of		G - CLEAR GLASS		3 - HNO ₃	
Atlanta, GA 30308		CONTAINERS		V - VOA VIAL		4 - NaOH, ≤6°C	
404-506-7239		CONTAINERS		S - STERILE		5 - NaOH/ZnAc, ≤6°C	
REPORT TO:		CONTAINERS		O - OTHER		6 - Na ₂ S ₂ O ₃ , ≤6°C	
Joju Abraham		CONTAINERS				7 - ≤6°C not frozen	
REQUESTED COMPLETION DATE:		CONTAINERS					
PO #:		CONTAINERS					
PROJECT NAME/STATE:		CONTAINERS					
Plant Yates - Ash Pond 2		CONTAINERS					
PROJECT #:		CONTAINERS					
Collection DATE	Collection TIME	MATRIX CODE	C O R M A B	SAMPLE IDENTIFICATION	Floude	Metals App IV (EPA 6020/7470)	Radium 226 & 228 (SW-846 9315/9320)
2-26-19	1308	BW	✓	YGWA-14S	1	1	2
2-26-19	1438	BW	✓	YGWA-30I	1	1	2
2-27-19	1245	BW	✓	YGWA-3I	1	1	2
2-27-19	1105	BW	✓	YGWA-3D	1	1	2
2-27-19	1048	BW	✓	YGWA-2I	1	1	2
2-27-19	1210	BW	✓	YGWA-1I	1	1	2
2-27-19	1008	BW	✓	YGWA-1D	1	1	2
2-27-19	1258	BW	✓	YGWC-26S	1	1	2
2-27-19	1412	BW	✓	YGWC-26I	1	1	2
2-27-19	1415	BW	✓	YGWC-27S	1	1	4
2-27-19	1520	BW	✓	YGWC-27I	1	1	2
2-27-19	1726	BW	✓	YGWC-28S	1	1	2
SAMPLER BY AND TITLE:		DATE/TIME:		RELINQUISHED BY:		DATE/TIME:	
Charles R. Walker, H.A.L.		See above		[Signature]		2-28-19 / 1505	
RECEIVED BY:		DATE/TIME:		RELINQUISHED BY:		DATE/TIME:	
[Signature]		2/28/19 1505		[Signature]		2-28-19 / 1505	
RECEIVED BY LAB:		DATE/TIME:		SAMPLE SHIPPED VIA:		COURIER OTHER FS	
[Signature]		2/28/19 1505		UPS		[Signature]	
pH checked:		Temperature:		Custody Seal:		# of Coolers	
Yes		Min		Intact Broken Not Present		0	

Extra Rad collected here

NO#: 2615503





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

CHAIN OF CUSTODY RECORD

CLIENT NAME: Georgia Power		ANALYSIS REQUESTED		CONTAINER TYPE		PRESERVATION	
CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER: 241 Ralph McGill Blvd SE B10185 Atlanta, GA 30308 404-506-7239		# of		P 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	
REPORT TO: Joju Abraham		CONTAINER TYPE		P 7		CONTAINER TYPE	
REQUESTED COMPLETION DATE:		PRESERVATION:		3		P - PLASTIC A - AMBER GLASS G - CLEAR GLASS V - VOA VIAL S - STERILE O - OTHER	
PROJECT NAME/STATE: Plant Yates - Ash Pond 2		C O N T A I N E R S		Metals App. IV (EPA 6020/7470)		-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	
PROJECT #:		SAMPLE IDENTIFICATION		Fluoride Radium 226 & 228 (SW-846 9315/9320)		REMARKS/ADDITIONAL INFORMATION	
Collection DATE	Collection TIME	MATRIX CODE	C O R A B	GRAB	DATE/TIME	RELINQUISHED BY:	DATE/TIME
2-27-19	1550	6W	✓	✓	Y6WC-28I	<i>[Signature]</i>	2-28-19 / 1525
2-27-19	1407	6W	✓	✓	Y6WC-29I		
2-27-19	1220	W	✓	✓	FB-1-2-27-19		
2-27-19	1430	W	✓	✓	FB-2-2-27-19		
2-27-19	---	6W	✓	✓	Dup-1		
2-27-19	---	6W	✓	✓	Dup-2		
2-27-19	1250	W	✓	✓	FB-1-2-27-19		
2-27-19	1500	W	✓	✓	FB-2-2-27-19		
SAMPLED BY AND TITLE: <i>[Signature]</i>		DATE/TIME:		RELINQUISHED BY:		DATE/TIME:	
RECEIVED BY: <i>[Signature]</i>		DATE/TIME:		RELINQUISHED BY:		DATE/TIME:	
REMOVED BY US: <i>[Signature]</i>		DATE/TIME:		SAMPLE SHIPPED VIA:		CLIENT OTHER FS	
Checked: Yes No NA		Temperature: Min Max		UPS FED-EX USPS COURIER		Cooler ID	

WO#: 2615503



Yates Ash Pond 2 - Blank COCs.xlsx

Sample Condition Upon Receipt

WO#: 2615503



Client Name: Georgia Power Coal Combustion

PM: BM Due Date: 03/07/19 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 083 Type of Ice: Wet Blue None

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

Proj Name

Samples on ice, cooling process has begun Date and Initials of person examining contents: 2/20/19

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

Field Data Required? Y / N

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)

March 22, 2019

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

RE: Project: Plant Yates - Ash Ponds 2
Pace Project No.: 2615504

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on February 28, 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 Ponds 2
Pace Project No.: 2615504

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 Ponds 2

Pace Project No.: 2615504

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2615504001	YGWA-14S	Water	02/26/19 13:08	02/28/19 15:05
2615504002	YGWA-30I	Water	02/26/19 14:38	02/28/19 15:05
2615504003	YGWA-3I	Water	02/27/19 12:45	02/28/19 15:05
2615504004	YGWA-3D	Water	02/27/19 11:05	02/28/19 15:05
2615504005	YGWA-2I	Water	02/27/19 10:48	02/28/19 15:05
2615504006	YGWA-1I	Water	02/27/19 12:10	02/28/19 15:05
2615504007	YGWA-1D	Water	02/27/19 10:08	02/28/19 15:05
2615504008	YGWC-26S	Water	02/27/19 12:58	02/28/19 15:05
2615504009	YGWC-26I	Water	02/27/19 14:12	02/28/19 15:05
2615504010	YGWC-27S	Water	02/27/19 14:15	02/28/19 15:05
2615504011	YGWC-27I	Water	02/27/19 15:20	02/28/19 15:05
2615504012	YGWC-28S	Water	02/27/19 17:26	02/28/19 15:05
2615504013	YGWC-28I	Water	02/27/19 15:50	02/28/19 15:05
2615504014	YGWC-29I	Water	02/27/19 14:07	02/28/19 15:05
2615504015	EB-1-2-27-19	Water	02/27/19 12:20	02/28/19 15:05
2615504016	EB-2-2-27-19	Water	02/27/19 14:30	02/28/19 15:05
2615504017	DUP-1	Water	02/27/19 00:00	02/28/19 15:05
2615504018	DUP-2	Water	02/27/19 00:00	02/28/19 15:05
2615504019	FB-1-2-27-19	Water	02/27/19 12:50	02/28/19 15:05
2615504020	FB-2-2-27-19	Water	02/27/19 15:00	02/28/19 15:05

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SAMPLE ANALYTE COUNT

Project: Plant Yates - Ash Ponds 2

Pace Project No.: 2615504

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2615504001	YGWA-14S	EPA 9315	JJY	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2615504002	YGWA-30I	EPA 9315	JJY	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2615504003	YGWA-3I	EPA 9315	JJY	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2615504004	YGWA-3D	EPA 9315	JJY	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2615504005	YGWA-2I	EPA 9315	JJY	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2615504006	YGWA-1I	EPA 9315	JJY	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2615504007	YGWA-1D	EPA 9315	JJY	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2615504008	YGWC-26S	EPA 9315	JJY	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2615504009	YGWC-26I	EPA 9315	JJY	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2615504010	YGWC-27S	EPA 9315	JJY	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2615504011	YGWC-27I	EPA 9315	JJY	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2615504012	YGWC-28S	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2615504013	YGWC-28I	EPA 9315	JJY	1	PASI-PA

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: Plant Yates - Ash Ponds 2

Pace Project No.: 2615504

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2615504014	YGWC-29I	EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		EPA 9315	JJY	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
2615504015	EB-1-2-27-19	Total Radium Calculation	CMC	1	PASI-PA
		EPA 9315	JJY	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2615504016	EB-2-2-27-19	EPA 9315	JJY	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		EPA 9315	JJY	1	PASI-PA
2615504017	DUP-1	EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		EPA 9315	JJY	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
2615504018	DUP-2	Total Radium Calculation	CMC	1	PASI-PA
		EPA 9315	JJY	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2615504019	FB-1-2-27-19	EPA 9315	JJY	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		EPA 9315	JJY	1	PASI-PA
2615504020	FB-2-2-27-19	EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		EPA 9315	JJY	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates - Ash Ponds 2

Pace Project No.: 2615504

Sample: YGWA-14S **Lab ID: 2615504001** Collected: 02/26/19 13:08 Received: 02/28/19 15:05 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.202 ± 0.289 (0.634) C:96% T:NA	pCi/L	03/14/19 08:13	13982-63-3	
Radium-228	EPA 9320	-0.0131 ± 0.310 (0.726) C:68% T:95%	pCi/L	03/20/19 11:11	15262-20-1	
Total Radium	Total Radium Calculation	0.202 ± 0.599 (1.36)	pCi/L	03/21/19 13:20	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates - Ash Ponds 2

Pace Project No.: 2615504

Sample: YGWA-30I **Lab ID: 2615504002** Collected: 02/26/19 14:38 Received: 02/28/19 15:05 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.329 ± 0.240 (0.375) C:98% T:NA	pCi/L	03/14/19 08:13	13982-63-3	
Radium-228	EPA 9320	0.195 ± 0.370 (0.813) C:64% T:84%	pCi/L	03/20/19 11:11	15262-20-1	
Total Radium	Total Radium Calculation	0.524 ± 0.610 (1.19)	pCi/L	03/21/19 13:20	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates - Ash Ponds 2

Pace Project No.: 2615504

Sample: YGWA-3I **Lab ID: 2615504003** Collected: 02/27/19 12:45 Received: 02/28/19 15:05 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	2.66 ± 0.703 (0.525) C:91% T:NA	pCi/L	03/14/19 08:17	13982-63-3	
Radium-228	EPA 9320	1.01 ± 0.472 (0.792) C:71% T:80%	pCi/L	03/20/19 11:12	15262-20-1	
Total Radium	Total Radium Calculation	3.67 ± 1.18 (1.32)	pCi/L	03/21/19 13:20	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates - Ash Ponds 2

Pace Project No.: 2615504

Sample: YGWA-3D **Lab ID: 2615504004** Collected: 02/27/19 11:05 Received: 02/28/19 15:05 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	1.72 ± 0.537 (0.437) C:91% T:NA	pCi/L	03/14/19 08:14	13982-63-3	
Radium-228	EPA 9320	2.07 ± 0.659 (0.861) C:65% T:85%	pCi/L	03/20/19 11:12	15262-20-1	
Total Radium	Total Radium Calculation	3.79 ± 1.20 (1.30)	pCi/L	03/21/19 13:20	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates - Ash Ponds 2

Pace Project No.: 2615504

Sample: YGWA-2I **Lab ID: 2615504005** Collected: 02/27/19 10:48 Received: 02/28/19 15:05 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 ± 0.273 (0.534) C:96% T:NA	pCi/L	03/14/19 08:14	13982-63-3	
Radium-228	EPA 9320	0.347 ± 0.427 (0.905) C:69% T:81%	pCi/L	03/20/19 11:12	15262-20-1	
Total Radium	Total Radium Calculation	0.635 ± 0.700 (1.44)	pCi/L	03/21/19 13:20	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates - Ash Ponds 2

Pace Project No.: 2615504

Sample: YGWA-1I **Lab ID: 2615504006** Collected: 02/27/19 12:10 Received: 02/28/19 15:05 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.472 ± 0.293 (0.432) C:86% T:NA	pCi/L	03/14/19 08:17	13982-63-3	
Radium-228	EPA 9320	0.165 ± 0.347 (0.767) C:67% T:87%	pCi/L	03/20/19 11:12	15262-20-1	
Total Radium	Total Radium Calculation	0.637 ± 0.640 (1.20)	pCi/L	03/21/19 13:20	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates - Ash Ponds 2

Pace Project No.: 2615504

Sample: YGWA-1D **Lab ID: 2615504007** Collected: 02/27/19 10:08 Received: 02/28/19 15:05 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.752 ± 0.356 (0.450) C:95% T:NA	pCi/L	03/14/19 08:14	13982-63-3	
Radium-228	EPA 9320	0.458 ± 0.402 (0.812) C:65% T:85%	pCi/L	03/20/19 11:12	15262-20-1	
Total Radium	Total Radium Calculation	1.21 ± 0.758 (1.26)	pCi/L	03/21/19 13:20	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates - Ash Ponds 2

Pace Project No.: 2615504

Sample: YGWC-26S **Lab ID: 2615504008** Collected: 02/27/19 12:58 Received: 02/28/19 15:05 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.752 ± 0.340 (0.329) C:87% T:NA	pCi/L	03/14/19 08:08	13982-63-3	
Radium-228	EPA 9320	0.515 ± 0.340 (0.626) C:70% T:80%	pCi/L	03/20/19 11:13	15262-20-1	
Total Radium	Total Radium Calculation	1.27 ± 0.680 (0.955)	pCi/L	03/21/19 13:20	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates - Ash Ponds 2

Pace Project No.: 2615504

Sample: YGWC-261 **Lab ID: 2615504009** Collected: 02/27/19 14:12 Received: 02/28/19 15:05 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.376 ± 0.246 (0.350) C:93% T:NA	pCi/L	03/14/19 08:08	13982-63-3	
Radium-228	EPA 9320	0.238 ± 0.442 (0.968) C:64% T:85%	pCi/L	03/20/19 14:19	15262-20-1	
Total Radium	Total Radium Calculation	0.614 ± 0.688 (1.32)	pCi/L	03/21/19 13:20	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates - Ash Ponds 2

Pace Project No.: 2615504

Sample: YGWC-27S **Lab ID: 2615504010** Collected: 02/27/19 14:15 Received: 02/28/19 15:05 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.497 ± 0.282 (0.395) C:98% T:NA	pCi/L	03/14/19 08:09	13982-63-3	
Radium-228	EPA 9320	0.690 ± 0.386 (0.677) C:67% T:82%	pCi/L	03/20/19 14:19	15262-20-1	
Total Radium	Total Radium Calculation	1.19 ± 0.668 (1.07)	pCi/L	03/21/19 13:20	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates - Ash Ponds 2

Pace Project No.: 2615504

Sample: YGWC-271 **Lab ID: 2615504011** Collected: 02/27/19 15:20 Received: 02/28/19 15:05 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	3.11 ± 0.781 (0.441) C:86% T:NA	pCi/L	03/14/19 08:14	13982-63-3	
Radium-228	EPA 9320	1.58 ± 0.607 (0.977) C:77% T:80%	pCi/L	03/20/19 11:09	15262-20-1	
Total Radium	Total Radium Calculation	4.69 ± 1.39 (1.42)	pCi/L	03/21/19 13:20	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates - Ash Ponds 2

Pace Project No.: 2615504

Sample: YGWC-28S **Lab ID: 2615504012** Collected: 02/27/19 17:26 Received: 02/28/19 15:05 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.332 ± 0.133 (0.173) C:94% T:NA	pCi/L	03/14/19 15:34	13982-63-3	
Radium-228	EPA 9320	0.211 ± 0.298 (0.639) C:74% T:100%	pCi/L	03/20/19 11:10	15262-20-1	
Total Radium	Total Radium Calculation	0.543 ± 0.431 (0.812)	pCi/L	03/21/19 13:20	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates - Ash Ponds 2

Pace Project No.: 2615504

Sample: YGWC-28I **Lab ID: 2615504013** Collected: 02/27/19 15:50 Received: 02/28/19 15:05 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.812 ± 0.375 (0.508) C:98% T:NA	pCi/L	03/14/19 08:14	13982-63-3	
Radium-228	EPA 9320	0.135 ± 0.344 (0.769) C:75% T:83%	pCi/L	03/20/19 11:09	15262-20-1	
Total Radium	Total Radium Calculation	0.947 ± 0.719 (1.28)	pCi/L	03/21/19 13:20	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates - Ash Ponds 2

Pace Project No.: 2615504

Sample: YGWC-29I **Lab ID: 2615504014** Collected: 02/27/19 14:07 Received: 02/28/19 15:05 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.830 ± 0.358 (0.367) C:90% T:NA	pCi/L	03/14/19 08:08	13982-63-3	
Radium-228	EPA 9320	0.0716 ± 0.446 (1.01) C:68% T:89%	pCi/L	03/20/19 14:19	15262-20-1	
Total Radium	Total Radium Calculation	0.902 ± 0.804 (1.38)	pCi/L	03/21/19 13:20	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates - Ash Ponds 2

Pace Project No.: 2615504

Sample: EB-1-2-27-19 **Lab ID: 2615504015** Collected: 02/27/19 12:20 Received: 02/28/19 15:05 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.565 ± 0.329 (0.517) C:95% T:NA	pCi/L	03/14/19 08:17	13982-63-3	
Radium-228	EPA 9320	0.539 ± 0.363 (0.686) C:69% T:90%	pCi/L	03/20/19 11:12	15262-20-1	
Total Radium	Total Radium Calculation	1.10 ± 0.692 (1.20)	pCi/L	03/21/19 13:20	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates - Ash Ponds 2

Pace Project No.: 2615504

Sample: EB-2-2-27-19 **Lab ID: 2615504016** Collected: 02/27/19 14:30 Received: 02/28/19 15:05 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.335 ± 0.256 (0.449) C:100% T:NA	pCi/L	03/14/19 08:14	13982-63-3	
Radium-228	EPA 9320	0.502 ± 0.358 (0.689) C:69% T:87%	pCi/L	03/20/19 14:19	15262-20-1	
Total Radium	Total Radium Calculation	0.837 ± 0.614 (1.14)	pCi/L	03/21/19 13:20	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates - Ash Ponds 2

Pace Project No.: 2615504

Sample: DUP-1 **Lab ID: 2615504017** Collected: 02/27/19 00:00 Received: 02/28/19 15:05 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.247 ± 0.268 (0.541) C:85% T:NA	pCi/L	03/14/19 08:13	13982-63-3	
Radium-228	EPA 9320	0.516 ± 0.413 (0.819) C:68% T:82%	pCi/L	03/20/19 11:11	15262-20-1	
Total Radium	Total Radium Calculation	0.763 ± 0.681 (1.36)	pCi/L	03/21/19 13:20	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates - Ash Ponds 2

Pace Project No.: 2615504

Sample: DUP-2 **Lab ID: 2615504018** Collected: 02/27/19 00:00 Received: 02/28/19 15:05 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.757 ± 0.370 (0.519) C:96% T:NA	pCi/L	03/14/19 08:13	13982-63-3	
Radium-228	EPA 9320	0.397 ± 0.402 (0.830) C:67% T:84%	pCi/L	03/20/19 11:11	15262-20-1	
Total Radium	Total Radium Calculation	1.15 ± 0.772 (1.35)	pCi/L	03/21/19 13:20	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates - Ash Ponds 2

Pace Project No.: 2615504

Sample: FB-1-2-27-19 **Lab ID: 2615504019** Collected: 02/27/19 12:50 Received: 02/28/19 15:05 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.598 ± 0.296 (0.338) C:99% T:NA	pCi/L	03/14/19 08:08	13982-63-3	
Radium-228	EPA 9320	0.000 ± 0.344 (0.806) C:70% T:76%	pCi/L	03/20/19 11:12	15262-20-1	
Total Radium	Total Radium Calculation	0.598 ± 0.640 (1.14)	pCi/L	03/21/19 13:20	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates - Ash Ponds 2

Pace Project No.: 2615504

Sample: FB-2-2-27-19 **Lab ID: 2615504020** Collected: 02/27/19 15:00 Received: 02/28/19 15:05 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.248 ± 0.243 (0.466) C:89% T:NA	pCi/L	03/14/19 08:14	13982-63-3	
Radium-228	EPA 9320	1.20 ± 1.09 (2.23) C:25% T:81%	pCi/L	03/20/19 11:09	15262-20-1	
Total Radium	Total Radium Calculation	1.45 ± 1.33 (2.70)	pCi/L	03/21/19 13:20	7440-14-4	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Yates - Ash Ponds 2

Pace Project No.: 2615504

QC Batch: 333523

Analysis Method: EPA 9315

QC Batch Method: EPA 9315

Analysis Description: 9315 Total Radium

Associated Lab Samples: 2615504012

METHOD BLANK: 1622805

Matrix: Water

Associated Lab Samples: 2615504012

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.339 ± 0.328 (0.659) C:96% T:NA	pCi/L	03/15/19 09:04	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Yates - Ash Ponds 2

Pace Project No.: 2615504

QC Batch:	333851	Analysis Method:	EPA 9320
QC Batch Method:	EPA 9320	Analysis Description:	9320 Radium 228
Associated Lab Samples:	2615504011, 2615504012, 2615504013, 2615504020		

METHOD BLANK:	1624808	Matrix:	Water
Associated Lab Samples:	2615504011, 2615504012, 2615504013, 2615504020		

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.242 ± 0.382 (0.828) C:74% T:75%	pCi/L	03/20/19 11:09	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Yates - Ash Ponds 2

Pace Project No.: 2615504

QC Batch:	332855	Analysis Method:	EPA 9320
QC Batch Method:	EPA 9320	Analysis Description:	9320 Radium 228
Associated Lab Samples:	2615504001, 2615504002, 2615504003, 2615504004, 2615504005, 2615504006, 2615504007, 2615504008, 2615504009, 2615504010, 2615504014, 2615504015, 2615504016, 2615504017, 2615504018, 2615504019		

METHOD BLANK:	1619643	Matrix:	Water
Associated Lab Samples:	2615504001, 2615504002, 2615504003, 2615504004, 2615504005, 2615504006, 2615504007, 2615504008, 2615504009, 2615504010, 2615504014, 2615504015, 2615504016, 2615504017, 2615504018, 2615504019		

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.349 ± 0.394 (0.830) C:71% T:87%	pCi/L	03/20/19 11:10	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Yates - Ash Ponds 2

Pace Project No.: 2615504

QC Batch:	332857	Analysis Method:	EPA 9315
QC Batch Method:	EPA 9315	Analysis Description:	9315 Total Radium
Associated Lab Samples:	2615504001, 2615504002, 2615504003, 2615504004, 2615504005, 2615504006, 2615504007, 2615504008, 2615504009, 2615504010, 2615504011, 2615504013, 2615504014, 2615504015, 2615504016, 2615504017, 2615504018, 2615504019, 2615504020		

METHOD BLANK:	1619645	Matrix:	Water
Associated Lab Samples:	2615504001, 2615504002, 2615504003, 2615504004, 2615504005, 2615504006, 2615504007, 2615504008, 2615504009, 2615504010, 2615504011, 2615504013, 2615504014, 2615504015, 2615504016, 2615504017, 2615504018, 2615504019, 2615504020		

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.424 ± 0.162 (0.231) C:91% T:NA	pCi/L	03/13/19 18:54	

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QUALIFIERS

Project: Plant Yates - Ash Ponds 2

Pace Project No.: 2615504

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 Ponds 2
Pace Project No.: 2615504

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2615504001	YGWA-14S	EPA 9315	332857		
2615504002	YGWA-30I	EPA 9315	332857		
2615504003	YGWA-3I	EPA 9315	332857		
2615504004	YGWA-3D	EPA 9315	332857		
2615504005	YGWA-2I	EPA 9315	332857		
2615504006	YGWA-1I	EPA 9315	332857		
2615504007	YGWA-1D	EPA 9315	332857		
2615504008	YGWC-26S	EPA 9315	332857		
2615504009	YGWC-26I	EPA 9315	332857		
2615504010	YGWC-27S	EPA 9315	332857		
2615504011	YGWC-27I	EPA 9315	332857		
2615504012	YGWC-28S	EPA 9315	333523		
2615504013	YGWC-28I	EPA 9315	332857		
2615504014	YGWC-29I	EPA 9315	332857		
2615504015	EB-1-2-27-19	EPA 9315	332857		
2615504016	EB-2-2-27-19	EPA 9315	332857		
2615504017	DUP-1	EPA 9315	332857		
2615504018	DUP-2	EPA 9315	332857		
2615504019	FB-1-2-27-19	EPA 9315	332857		
2615504020	FB-2-2-27-19	EPA 9315	332857		
2615504001	YGWA-14S	EPA 9320	332855		
2615504002	YGWA-30I	EPA 9320	332855		
2615504003	YGWA-3I	EPA 9320	332855		
2615504004	YGWA-3D	EPA 9320	332855		
2615504005	YGWA-2I	EPA 9320	332855		
2615504006	YGWA-1I	EPA 9320	332855		
2615504007	YGWA-1D	EPA 9320	332855		
2615504008	YGWC-26S	EPA 9320	332855		
2615504009	YGWC-26I	EPA 9320	332855		
2615504010	YGWC-27S	EPA 9320	332855		
2615504011	YGWC-27I	EPA 9320	333851		
2615504012	YGWC-28S	EPA 9320	333851		
2615504013	YGWC-28I	EPA 9320	333851		
2615504014	YGWC-29I	EPA 9320	332855		
2615504015	EB-1-2-27-19	EPA 9320	332855		
2615504016	EB-2-2-27-19	EPA 9320	332855		
2615504017	DUP-1	EPA 9320	332855		
2615504018	DUP-2	EPA 9320	332855		
2615504019	FB-1-2-27-19	EPA 9320	332855		
2615504020	FB-2-2-27-19	EPA 9320	333851		
2615504001	YGWA-14S	Total Radium Calculation	334845		
2615504002	YGWA-30I	Total Radium Calculation	334845		
2615504003	YGWA-3I	Total Radium Calculation	334845		
2615504004	YGWA-3D	Total Radium Calculation	334845		
2615504005	YGWA-2I	Total Radium Calculation	334845		

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Yates - Ash Ponds 2

Pace Project No.: 2615504

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2615504006	YGWA-1I	Total Radium Calculation	334845		
2615504007	YGWA-1D	Total Radium Calculation	334845		
2615504008	YGWC-26S	Total Radium Calculation	334845		
2615504009	YGWC-26I	Total Radium Calculation	334845		
2615504010	YGWC-27S	Total Radium Calculation	334845		
2615504011	YGWC-27I	Total Radium Calculation	334845		
2615504012	YGWC-28S	Total Radium Calculation	334845		
2615504013	YGWC-28I	Total Radium Calculation	334845		
2615504014	YGWC-29I	Total Radium Calculation	334845		
2615504015	EB-1-2-27-19	Total Radium Calculation	334845		
2615504016	EB-2-2-27-19	Total Radium Calculation	334845		
2615504017	DUP-1	Total Radium Calculation	334845		
2615504018	DUP-2	Total Radium Calculation	334845		
2615504019	FB-1-2-27-19	Total Radium Calculation	334845		
2615504020	FB-2-2-27-19	Total Radium Calculation	334845		

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

CLIENT NAME: Georgia Power		CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER: 241 Ralpl. McGill Blvd SE B10185 Atlanta, GA 30308 404-506-7239		REPORT TO: Joju Abraham		REQUESTED COMPLETION DATE:		CC:		PO #:		PROJECT NAME/STATE: Plant Yates - Ash Pond 2		PROJECT #:	
Collection DATE	Collection TIME	MATRIX CODE	C O R P	G R A B	SAMPLE IDENTIFICATION	ANALYSIS REQUESTED			CONTAINER TYPE			CONTAINER TYPE	PRESERVATION		
						Metals App. IV (EPA 6020/7470)	Fluoride (SW 846 9315/9320)	Radium 226 & 228	# of	PRESERVATION	P			P	P
2-26-19	1308	GW	✓		Y6WA-14S	1	1	2	3	7	3	P - PLASTIC	1 - HCl, ≤6°C		
2-26-19	1438	GW	✓		Y6WA-30I	1	1	2				A - AMBER GLASS	2 - H ₂ SO ₄ , ≤6°C		
2-27-19	1245	GW	✓		Y6WA-31I	1	1	2				G - CLEAR GLASS	3 - HNO ₃		
2-27-19	1105	GW	✓		Y6WA-3D	1	1	2				V - VOA VIAL	4 - NaOH, ≤6°C		
2-27-19	1048	GW	✓		Y6WA-2I	1	1	2				S - STERILE	5 - NaOH/ZnAc, ≤6°C		
2-27-19	1210	GW	✓		Y6WA-1I	1	1	2				O - OTHER	6 - Na ₂ S ₂ O ₃ , ≤6°C		
2-27-19	1008	GW	✓		Y6WA-1D	1	1	2					7 - ≤6°C not frozen		
2-27-19	1258	GW	✓		Y6WC-26S	1	1	2							
2-27-19	1412	GW	✓		Y6WC-26I	1	1	2							
2-27-19	1415	GW	✓		Y6WC-27S	1	1	4							
2-27-19	1520	GW	✓		Y6WC-27I	1	1	2							
2-27-19	1726	GW	✓		Y6WC-28S	1	1	2							
SAMPLED BY AND TITLE: C. Baker, H. A. Tol						RELINQUISHED BY: C. Baker			DATE/TIME: 2-28-19 1505			DATE/TIME: 2-28-19 1505			
RECEIVED BY: C. Baker						RELINQUISHED BY: C. Baker			DATE/TIME: 2-28-19 1505			DATE/TIME: 2-28-19 1505			
RECEIVED BY LAB: C. Baker						SAMPLE SHIPPED VIA: UPS			COURIER SHENT			OTHER FS			
pH checked: Yes No NA						Custody Seal: Intact Broken Not Present			# of Coolers Cooler ID:			Cooler ID:			

WO#: 2615504

2615504

Extra Rad collected here



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: PO #
 PROJECT NAME/STATE: Plant Yates - Ash Pond 2
 PROJECT #:

Collection DATE	Collection TIME	MATRIX CODE	CONTAINER IDENTIFICATION			ANALYSIS REQUESTED	CONTAINER TYPE	PRESERVATION	# of CONTAINERS	RELINQUISHED BY	DATE/TIME				
			C	G	R							M	A		
2-27-19	1550	6W	✓	✓	✓	Y6WC-28I	4	1	1	2	Flouide (EPA 6020/7470) Metals App IV Radium 226 & 228 (SW 846 9315/9320)	P - PLASTIC A - AMBER GLASS G - CLEAR GLASS V - VOA VIAL S - STERILE O - OTHER	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	13	
2-27-19	1407	6W	✓	✓	✓	Y6WC-29I	4	1	1	2					14
2-27-19	1220	W	✓	✓	✓	EB-1-2-27-19	4	1	1	2					15
2-27-19	1430	W	✓	✓	✓	EB-2-2-27-19	4	1	1	2					16
2-27-19	—	GW	✓	✓	✓	DUP-1	4	1	1	2					17
2-27-19	—	GW	✓	✓	✓	DUP-2	4	1	1	2					18
2-27-19	1250	W	✓	✓	✓	FB-1-2-27-19	4	1	1	2					19
2-27-19	1500	W	✓	✓	✓	FB-2-2-27-19	4	1	1	2					20

SAMPLED BY AND TITLE: *See above* DATE/TIME: *See above*
 RECEIVED BY: *See above* DATE/TIME: *See above*

RELINQUISHED BY: *[Signature]* DATE/TIME: 2-28-19 1505
 RELINQUISHED BY: *[Signature]* DATE/TIME: *[Signature]*

RECEIVED BY LAB: *[Signature]* DATE/TIME: 2-28-19 1505
 Temperature: 19.4°C Min: 2.4°C Max: *[Signature]*

UPS Intact: Broken: # of Coolers: FS:

CUSTOMER: COURIER: OTHER:

Warranty: No: NA: Yes: No: NA:

WO#: 2615504



2615504

Yates Ash Pond 2 - Blank COCs.xlsx



Sample Condition Upon Receipt

WO#: 2615504

Client Name: Georgia Power Coal Combustion

PM: BM Due Date: 03/28/19 CLIENT: GAPower-CCR

Courier: Fed Ex UPS USPS Client Commercial Pace Other

Tracking #: _____

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 083 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: 2/28/19

Temp should be above freezing to 6°C

Comments:

Table with 16 rows and 3 columns: Question, Yes/No/N/A checkboxes, and Item Number. Includes items like Chain of Custody Present, Sufficient Volume, and Trip Blank Present.

Client Notification/ Resolution:

Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____ Date: _____

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

Product Name: Low-Flow System

Date: 2019-02-27 10:09:45

Project Information:

Operator Name Ryan Walker
Company Name Atlantic Coast Consulting
Project Name Plant Yates- Ash Pond
Site Name Plant Yates - Ash Pond
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 596190
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED Bladder
Tubing Type poly
Tubing Diameter .17 in
Tubing Length 108 ft
Pump placement from TOC 103 ft

Well Information:

Well ID YGWA-1D
Well diameter 2 in
Well Total Depth 128.60 ft
Screen Length 50 ft
Depth to Water 45.73 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.9670497 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 1 in
Total Volume Pumped 7 L

Low-Flow Sampling Stabilization Summary

Stabilization Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Last 5	09:48:44	15.86	6.93	154.40	1.92	45.80	+/- 10%	+/- 10
Last 5	09:53:44	15.86	6.90	150.80	1.78	45.80	0.12	-166.84
Last 5	09:58:44	15.86	6.87	148.22	1.17	45.80	0.11	-170.52
Last 5	10:03:46	15.90	6.85	146.65	1.13	45.80	0.12	-168.97
Last 5	10:08:47	15.88	6.84	145.56	1.24	45.80	0.13	-165.62
Variance 0		0.00	-0.03	-2.58			0.14	-162.31
Variance 1		0.04	-0.02	-1.57			0.01	1.55
Variance 2		-0.01	-0.02	-1.09			0.01	3.35

Notes

Sampled at 10:08 on 2/27/19. Cloudy 50's. FB-1-2-27-19 here.

Grab Samples

Product Name: Low-Flow System

Date: 2019-02-27 12:12:37

Project Information:

Operator Name Ryan Walker
Company Name Atlantic Coast Consulting
Project Name Plant Yates
Site Name Plant Yates AP 2
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 596190
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED Bladder
Tubing Type poly
Tubing Diameter .17 in
Tubing Length 54 ft
Pump placement from TOC 49 ft

Well Information:

Well ID YGWA-1I
Well diameter 2 in
Well Total Depth 54.93 ft
Screen Length 10 ft
Depth to Water 33.56 ft

Pumping Information:

Final Pumping Rate 60 mL/min
Total System Volume 0.7260249 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 26 in
Total Volume Pumped 7 L

Low-Flow Sampling Stabilization Summary

Stabilization Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Last 5	11:50:52	15.99	5.83	51.39	1.93	35.70	3.38	50.54
Last 5	11:55:52	16.01	5.79	51.90	1.92	35.70	3.53	53.28
Last 5	12:00:52	15.97	5.82	52.09	2.20	35.80	3.61	52.96
Last 5	12:05:52	15.93	5.82	52.30	2.53	35.80	3.69	53.63
Last 5	12:10:53	15.93	5.80	52.68	2.54	35.80	3.72	53.36
Variance 0		-0.04	0.02	0.20			0.08	-0.32
Variance 1		-0.04	-0.00	0.21			0.07	0.67
Variance 2		0.00	-0.01	0.38			0.04	-0.27

Notes

Sampled at 12:10. Cloudy 50's.

Grab Samples

Product Name: Low-Flow System

Date: 2019-02-27 10:47:26

Project Information:

Operator Name Hunter Auld
 Company Name Atlantic Coast Consulting
 Project Name Plant Yates
 Site Name Plant Yates AP 2
 Latitude 0° 0' 0"
 Longitude 0° 0' 0"
 Sonde SN 598939
 Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED Bladders Pump
 Tubing Type Poly
 Tubing Diameter .375 in
 Tubing Length 43 ft
 Pump placement from TOC 60 ft

Well Information:

Well ID YGWA-2I
 Well diameter 2 in
 Well Total Depth 65.74 ft
 Screen Length 10 ft
 Depth to Water 42.19 ft

Pumping Information:

Final Pumping Rate 55 mL/min
 Total System Volume 1.418902 L
 Calculated Sample Rate 300 sec
 Stabilization Drawdown 34.9 in
 Total Volume Pumped 2.1 L

Low-Flow Sampling Stabilization Summary

Stabilization Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
		+/- 0	+/- 0.1	+/- 3%	+/- 0		+/- 10%	+/- 0
Last 5	10:24:57	15.81	7.25	198.31	0.85	44.00	1.23	-100.45
Last 5	10:29:57	15.89	7.25	198.43	--	44.30	0.82	-111.26
Last 5	10:34:57	15.97	7.26	198.09	0.50	44.70	0.63	-115.61
Last 5	10:39:57	16.01	7.27	197.82	0.50	45.00	0.61	-114.61
Last 5	10:44:57	15.98	7.27	197.23	0.50	45.10	0.56	-111.93
Variance 0		0.09	0.00	-0.34			-0.18	-4.35
Variance 1		0.04	0.01	-0.28			-0.02	1.00
Variance 2		-0.03	0.00	-0.59			-0.05	2.68

Notes

Sampled at 1048 on 2-27-19. Cloudy, 60s.

Grab Samples

Product Name: Low-Flow System

Date: 2019-02-27 11:00:02

Project Information:

Operator Name Chris Parker
Company Name ACC
Project Name Plant Yates - Ash Pond 2
Site Name Plant Yates
Latitude 33° 27' 46.14"
Longitude -84° -53' -52.68"
Sonde SN 369370
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type Bladder Pump
Tubing Type poly
Tubing Diameter .25 in
Tubing Length 118 ft
Pump placement from TOC 113 ft

Well Information:

Well ID YGWA-3D
Well diameter 2 in
Well Total Depth 137.10 ft
Screen Length 10 ft
Depth to Water 30.62 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 1.624022 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 2 in
Total Volume Pumped 7 L

Low-Flow Sampling Stabilization Summary

Stabilization Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Last 5	10:34:53	16.40	7.77	228.32	0.55	30.70	0.48	+/- 0
Last 5	10:39:53	16.50	7.53	228.65	0.68	30.70	0.14	-43.40
Last 5	10:44:53	16.54	7.52	228.88	0.73	30.80	0.09	-41.73
Last 5	10:49:53	16.50	7.53	228.95	0.70	30.80	0.09	-64.51
Last 5	10:54:53	16.51	7.55	229.03	0.85	30.80	0.09	-63.69
Variance 0		0.04	-0.01	0.23			-0.05	-78.72
Variance 1		-0.04	0.01	0.07			-0.00	-22.78
Variance 2		0.00	0.02	0.08			0.01	0.82

Notes

Sampled at 11:05. Cloudy 50s

Grab Samples

Product Name: Low-Flow System

Date: 2019-02-27 12:43:26

Project Information:

Operator Name Chris Parker
Company Name ACC
Project Name Plant Yates - Ash Pond 2
Site Name Plant Yates
Latitude 33° 27' 46.14"
Longitude -84° -53' -52.68"
Sonde SN 369370
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 57 ft

Well Information:

Well ID YGWA-3I
Well diameter 2 in
Well Total Depth 60.0 ft
Screen Length 10 ft
Depth to Water 52.20 ft

Pumping Information:

Final Pumping Rate 180 mL/min
Total System Volume 1.064164 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 12 in
Total Volume Pumped 14.7 L

Low-Flow Sampling Stabilization Summary

Stabilization Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Last 5	12:20:33	16.33	7.55	199.62	1.24	53.10	0.55	+/- 0
Last 5	12:25:33	16.37	7.55	198.23	1.03	53.10	0.51	-82.69
Last 5	12:30:33	16.40	7.55	197.11	0.82	53.20	0.47	-82.81
Last 5	12:35:33	16.44	7.54	196.28	0.79	53.20	0.44	-80.74
Last 5	12:40:34	16.46	7.54	195.61	--	--	0.42	-85.18
Variance 0		0.03	0.00	-1.12	--	--	-0.03	-83.50
Variance 1		0.04	-0.01	-0.83	--	--	-0.03	2.07
Variance 2		0.02	0.01	-0.67	--	--	-0.02	-4.44

Notes

Sampled at 12:45. Cloudy 60s. EB 1 here at 12:20 - gloves.

Grab Samples

Product Name: Low-Flow System

Date: 2019-02-26 13:07:34

Project Information:

Operator Name Hunter Auld
Company Name Atlantic Coast Consulting
Project Name Plant Yates AP 2
Site Name Plant Yates AP 2
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 .295 in
Tubing Length 36 ft
Pump placement from TOC 31 ft

Well Information:

Well ID YGWA-14S
Well diameter 2 in
Well Total Depth 35.82 ft
Screen Length 10 ft
Depth to Water 13.63 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.8738567 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 4.4 in
Total Volume Pumped 6.6 L

Low-Flow Sampling Stabilization Summary

Stabilization Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
		+/- 0	+/- 0.1	+/- 3%	+/- 0		+/- 0.1%	+/- 0
Last 5	12:40:43	17.99	5.69	53.41	1.20	14.00	7.04	167.44
Last 5	12:45:43	17.83	5.49	52.40	1.00	14.00	6.83	175.16
Last 5	12:55:44	17.63	5.45	51.70	0.50	14.00	6.65	169.16
Last 5	13:00:44	17.90	5.46	51.49	0.35	14.00	6.60	173.41
Last 5	13:05:46	17.69	5.46	51.69	0.30	14.00	6.61	169.84
Variance 0		-0.20	-0.05	-0.70			-0.18	-6.01
Variance 1		0.26	0.01	-0.21			-0.05	4.25
Variance 2		-0.21	-0.00	0.20			0.01	-3.57

Notes

Sampled at 1308 on 2-26-19. Cloudy 60s.

Grab Samples

Product Name: Low-Flow System

Date: 2019-02-26 14:38:45

Project Information:

Operator Name Hunter Auld
Company Name Atlantic Coast Consulting
Project Name Plant Yates
Site Name Plant Yates AP 2
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 598939
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED Bladders Pump
Tubing Type Poly
Tubing Diameter .375 in
Tubing Length 60 ft
Pump placement from TOC 54 ft

Well Information:

Well ID YGWA-30I
Well diameter 2 in
Well Total Depth 59.65 ft
Screen Length 10 ft
Depth to Water 35.83 ft

Pumping Information:

Final Pumping Rate 210 mL/min
Total System Volume 1.788119 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.8 in
Total Volume Pumped 6.9 L

Low-Flow Sampling Stabilization Summary

Stabilization Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Last 5	14:16:27	17.59	5.81	35.57	0.50	35.90	6.97	+/- 0
Last 5	14:21:27	17.54	5.78	35.60	0.46	35.90	6.88	137.26
Last 5	14:26:36	17.52	5.77	35.55	0.40	35.90	6.80	137.87
Last 5	14:31:36	17.54	5.77	35.52	0.20	35.90	6.77	137.30
Last 5	14:36:36	17.54	5.77	35.60	0.30	35.90	6.75	137.67
Variance 0		-0.02	-0.01	-0.04			-0.07	138.21
Variance 1		0.02	-0.00	-0.03			-0.04	-0.57
Variance 2		0.00	-0.00	0.08			-0.02	0.37

Notes

Sampled at 1438 on 2-26-19. Cloudy 60s.

Grab Samples

Product Name: Low-Flow System

Date: 2019-02-27 14:11:00

Project Information:

Operator Name: Hunter Auld
Company Name: Atlantic Coast Consulting
Project Name: Plant Yates AP 2
Site Name: 0° 0' 0"
Latitude: 0° 0' 0"
Longitude: 598939
Sonde SN: Hach 2100Q
Turbidity Make/Model: Pump placement from TOC

Pump Information:

Pump Model/Type: QED Bladders Pump
Tubing Type: Poly
Tubing Diameter: .375 in
Tubing Length: 70 ft

Well Information:

Well ID: YGWC-26I
Well diameter: 2 in
Well Total Depth: 69.71 ft
Screen Length: 10 ft
Depth to Water: 20.03 ft

Pumping Information:

Final Pumping Rate: 220 mL/min
Total System Volume: 2.005305 L
Calculated Sample Rate: 300 sec
Stabilization Drawdown: 4.4 in
Total Volume Pumped: 5.9 L

Low-Flow Sampling Stabilization Summary

Stabilization Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
		+/- 0	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	13:50:12	18.75	5.81	282.66	2.60	20.40	0.42	78.82
Last 5	13:55:12	18.71	5.79	282.05	1.40	20.40	0.20	100.72
Last 5	14:00:12	18.71	5.79	283.88	1.10	20.40	0.14	105.47
Last 5	14:05:12	18.75	5.80	285.00	--	20.40	0.13	102.25
Last 5	14:10:12	18.77	5.79	285.42	1.20	20.40	0.14	104.42
Variance 0		-0.00	-0.00	1.83			-0.06	4.75
Variance 1		0.04	0.01	1.12			-0.01	-3.22
Variance 2		0.03	-0.00	0.42			0.01	2.17

Notes

Sampled at 1412 on 2-27-19. Cloudy, 60s.

Grab Samples

Product Name: Low-Flow System

Date: 2019-02-27 12:58:19

Project Information:

Operator Name Hunter Auld
 Company Name Atlantic Coast Consulting
 Project Name Plant Yates
 Site Name Plant Yates AP 2
 Latitude 0° 0' 0"
 Longitude 0° 0' 0"
 Sonde SN 598939
 Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED Bladders Pump
 Tubing Type Poly
 Tubing Diameter .375 in
 Tubing Length 41 ft
 Pump placement from TOC 35 ft

Well Information:

Well ID YGWC-26S
 Well diameter 2 in
 Well Total Depth 40.10 ft
 Screen Length 10 ft
 Depth to Water 16.90 ft

Pumping Information:

Final Pumping Rate 110 mL/min
 Total System Volume 1.375464 L
 Calculated Sample Rate 300 sec
 Stabilization Drawdown 10.8 in
 Total Volume Pumped 3.6 L

Low-Flow Sampling Stabilization Summary

Stabilization Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
		+/- 0	+/- 0.1	+/- 3%	+/- 0		+/- 10%	+/- 0
Last 5 12:35:55	600.03	18.39	5.02	251.32	4.70	17.70	1.80	204.76
Last 5 12:40:55	900.03	18.52	5.00	251.13	2.70	17.70	1.55	202.30
Last 5 12:45:55	1200.02	18.61	5.00	251.16	--	17.75	1.47	197.76
Last 5 12:50:56	1501.02	18.66	5.00	251.27	2.30	17.80	1.41	193.77
Last 5 12:55:59	1804.00	18.66	5.00	251.52	2.40	17.80	1.48	190.89
Variance 0		0.09	0.00	0.02			-0.08	-4.54
Variance 1		0.04	-0.00	0.12			-0.06	-4.00
Variance 2		-0.00	0.00	0.25			0.07	-2.88

Notes

Sampled at 1258 on 2-27-19. Cloudy 60s.

Grab Samples

Product Name: Low-Flow System

Date: 2019-02-27 15:19:31

Project Information:

Operator Name Chris Parker
Company Name ACC
Project Name Plant Yates - Ash Pond 2
Site Name Plant Yates
Latitude 33° 27' 46.14"
Longitude -84° -53' -52.68"
Sonde SN 369370
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type Bladder Pump
Tubing Type poly
Tubing Diameter .25 in
Tubing Length 80 ft
Pump placement from TOC 75 ft

Well Information:

Well ID YGWC-271
Well diameter 2 in
Well Total Depth 79.84 ft
Screen Length 10 ft
Depth to Water 22.93 ft

Pumping Information:

Final Pumping Rate 140 mL/min
Total System Volume 1.257218 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 5 in
Total Volume Pumped 5 L

Low-Flow Sampling Stabilization Summary

Stabilization Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Last 5	14:56:38	18.74	6.48	329.60	5.88	23.30	0.77	+/- 0
Last 5	15:01:38	18.65	6.38	337.62	4.11	23.30	0.37	28.79
Last 5	15:06:38	18.89	6.34	340.02	1.97	23.30	0.28	36.47
Last 5	15:11:38	19.09	6.33	339.49	1.64	23.30	0.23	37.12
Last 5	15:16:38	19.31	6.31	340.10	0.95	23.30	0.21	39.24
Variance 0		0.24	-0.04	2.41			-0.09	38.56
Variance 1		0.20	-0.02	-0.54			-0.05	0.65
Variance 2		0.22	-0.01	0.61			-0.02	2.12

Notes

Sampled at 15:20. Cloudy 60s. FB 2 here at 15:00

Grab Samples

Product Name: Low-Flow System

Date: 2019-02-27 14:15:18

Project Information:

Operator Name Chris Parker
Company Name ACC
Project Name Plant Yates - Ash Pond 2
Site Name Plant Yates
Latitude 33° 27' 46.14"
Longitude -84° -53' -52.68"
Sonde SN 369370
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 YGWC-27S
Well diameter 2 in
Well Total Depth 40.26 ft
Screen Length 10 ft
Depth to Water 22.56 ft

Pumping Information:

Final Pumping Rate 190 mL/min
Total System Volume 0.8711092 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 1 in
Total Volume Pumped 6.6 L

Low-Flow Sampling Stabilization Summary

Stabilization Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Last 5	13:51:20	18.35	6.58	395.20	1.78	22.60	0.94	219.35
Last 5	13:56:20	18.35	6.41	399.71	2.21	22.60	0.32	236.97
Last 5	14:01:20	18.36	6.33	403.30	2.08	22.60	0.21	221.29
Last 5	14:06:20	18.38	6.29	403.64	3.20	22.60	0.19	231.76
Last 5	14:11:20	18.43	6.26	402.40	3.44	22.60	0.17	224.43
Variance 0		0.01	-0.08	3.60			-0.11	-15.67
Variance 1		0.02	-0.05	0.33			-0.03	10.46
Variance 2		0.05	-0.03	-1.24			-0.02	-7.32

Notes

Collected at 14:15. Cloudy 60s

Grab Samples

Product Name: Low-Flow System

Date: 2019-02-27 15:49:27

Project Information:

Operator Name Hunter Auld
 Company Name Atlantic Coast Consulting
 Project Name Plant Yates
 Site Name Plant Yates AP 2
 Latitude 0° 0' 0"
 Longitude 0° 0' 0"
 Sonde SN 598939
 Turbidity Make/Model Hach2100Q

Pump Information:

Pump Model/Type QED Bladders Pump
 Tubing Type Poly
 Tubing Diameter .375 in
 Tubing Length 70 ft
 Pump placement from TOC 65 ft

Well Information:

Well ID YGWC-281
 Well diameter 2 in
 Well Total Depth 69.89 ft
 Screen Length 10 ft
 Depth to Water 20.12 ft

Pumping Information:

Final Pumping Rate 110 mL/min
 Total System Volume 2.005305 L
 Calculated Sample Rate 300 sec
 Stabilization Drawdown 17.2 in
 Total Volume Pumped 4.7 L

Low-Flow Sampling Stabilization Summary

Stabilization Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
		+/- 0	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	15:27:12	19.91	6.30	346.21	0.40	21.35	0.92	83.98
Last 5	15:32:14	20.04	6.30	347.80	--	21.40	0.73	84.90
Last 5	15:37:14	19.86	6.31	349.96	0.30	21.45	0.92	87.35
Last 5	15:42:15	19.64	6.32	351.90	--	21.50	0.83	89.53
Last 5	15:47:21	19.33	6.32	352.39	0.20	21.55	0.92	89.67
Variance 0		-0.19	0.01	2.16			0.20	2.45
Variance 1		-0.22	0.01	1.94			-0.09	2.18
Variance 2		-0.31	-0.01	0.49			0.09	0.14

Notes

Sampled at 1550 on 2-27-19. Sunny, 60s.

Grab Samples

Product Name: Low-Flow System

Date: 2019-02-27 17:27:11

Project Information:

Operator Name Ryan Walker
 Company Name Atlantic Coast Consulting
 Project Name Plant Yates
 Site Name Plant Yates AP 2
 Latitude 0° 0' 0"
 Longitude 0° 0' 0"
 Sonde SN 596190
 Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED Bladder
 Tubing Type poly
 Tubing Diameter .17 in
 Tubing Length 44 ft
 Pump placement from TOC 39 ft

Well Information:

Well ID YGWC-28S
 Well diameter 2 in
 Well Total Depth 44.85 ft
 Screen Length 10 ft
 Depth to Water 20.30 ft

Pumping Information:

Final Pumping Rate 200 mL/min
 Total System Volume 0.6813906 L
 Calculated Sample Rate 300 sec
 Stabilization Drawdown 6 in
 Total Volume Pumped 29 L

Low-Flow Sampling Stabilization Summary

Stabilization Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
		+/- 1	+/- 0.2	+/- 5%	+/- 0		+/- 10%	+/- 10
Last 5 17:06:21	8103.88	19.29	6.35	385.86	5.18	20.80	0.10	-99.26
Last 5 17:11:21	8403.88	19.31	6.35	387.18	5.12	20.80	0.10	-100.33
Last 5 17:16:21	8703.87	19.31	6.36	387.81	5.13	20.80	0.10	-100.26
Last 5 17:21:21	9003.87	19.28	6.36	386.47	5.07	20.80	0.10	-99.98
Last 5 17:26:21	9303.86	19.23	6.38	388.13	4.92	20.80	0.10	-100.69
Variance 0		0.00	0.01	0.63			-0.00	0.07
Variance 1		-0.03	0.00	-1.34			-0.00	0.28
Variance 2		-0.04	0.01	1.66			0.00	-0.71

Notes

Sampled at 17:26. Cloudy 60's. DUP-2 here.

Grab Samples

Product Name: Low-Flow System

Date: 2019-02-27 14:07:48

Project Information:

Operator Name Ryan Walker
Company Name Atlantic Coast Consulting
Project Name Plant Yates
Site Name Plant Yates AP 2
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 596190
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED Bladder
Tubing Type poly
Tubing Diameter .17 in
Tubing Length 39 ft
Pump placement from TOC 34 ft

Well Information:

Well ID YGWC-29I
Well diameter 2 in
Well Total Depth 39.46 ft
Screen Length 10 ft
Depth to Water 23.91 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 0.6590735 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 17 in
Total Volume Pumped 5.5 L

Low-Flow Sampling Stabilization Summary

Stabilization Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
		+/- 0	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 10
Last 5	13:47:06	18.02	6.21	242.17	1.06	25.20	0.41	53.04
Last 5	13:52:06	17.95	6.20	242.54	0.96	25.30	0.28	52.69
Last 5	13:57:10	17.94	6.20	242.85	1.08	25.30	0.23	51.98
Last 5	14:02:10	17.98	6.19	242.71	1.27	25.40	0.22	52.10
Last 5	14:07:14	18.03	6.19	242.97	1.02	25.40	0.20	51.05
Variance 0		-0.01	-0.00	0.31			-0.04	-0.71
Variance 1		0.03	-0.01	-0.14			-0.02	0.13
Variance 2		0.05	0.00	0.26			-0.02	-1.06

Notes

Sampled at 14:07. Cloudy 60's.

Grab Samples

April 22, 2019

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

RE: Project: Plant Yates - Ash Pond 2
Pace Project No.: 2616783

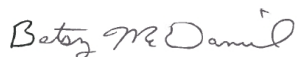
Dear Joju Abraham:

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.

This revised report replaces the report issued on 4/7/2019. The report has been revised to correct sample IDs 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 2

Pace Project No.: 2616783

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

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SAMPLE SUMMARY

Project: Plant Yates - Ash Pond 2

Pace Project No.: 2616783

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2616783001	YGWA-1D	Water	03/28/19 11:43	03/29/19 16:05
2616783002	YGWA-1I	Water	03/28/19 15:08	03/29/19 16:05
2616783003	YGWA-2I	Water	03/29/19 11:27	03/29/19 16:05
2616783004	YGWA-14S	Water	03/29/19 13:50	03/29/19 16:05
2616783005	DUP-1	Water	03/29/19 00:00	03/29/19 16:05

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SAMPLE ANALYTE COUNT

Project: Plant Yates - Ash Pond 2

Pace Project No.: 2616783

Lab ID	Sample ID	Method	Analysts	Analytes Reported
2616783001	YGWA-1D	EPA 6020B	CSW	11
		EPA 7470A	DRB	1
		SM 2540C	RLC	1
		EPA 300.0	RLC	3
2616783002	YGWA-1I	EPA 6020B	CSW	11
		EPA 7470A	DRB	1
		SM 2540C	RLC	1
		EPA 300.0	RLC	3
2616783003	YGWA-2I	EPA 6020B	CSW	11
		EPA 7470A	DRB	1
		SM 2540C	RLC	1
		EPA 300.0	RLC	3
2616783004	YGWA-14S	EPA 6020B	CSW	11
		EPA 7470A	DRB	1
		SM 2540C	RLC	1
		EPA 300.0	RLC	3
2616783005	DUP-1	EPA 6020B	CSW	11
		EPA 7470A	DRB	1
		SM 2540C	RLC	1
		EPA 300.0	RLC	3

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ANALYTICAL RESULTS

Project: Plant Yates - Ash Pond 2

Pace Project No.: 2616783

Sample: YGWA-1D		Lab ID: 2616783001		Collected: 03/28/19 11:43		Received: 03/29/19 16:05		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								
Arsenic	0.00072J	mg/L	0.0050	0.00057	1	04/03/19 11:25	04/04/19 23:06	7440-38-2		
Barium	0.0082J	mg/L	0.010	0.00078	1	04/03/19 11:25	04/04/19 23:06	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000050	1	04/03/19 11:25	04/04/19 23:06	7440-41-7		
Boron	0.0050J	mg/L	0.040	0.0039	1	04/03/19 11:25	04/04/19 23:06	7440-42-8		
Cadmium	ND	mg/L	0.0010	0.000093	1	04/03/19 11:25	04/04/19 23:06	7440-43-9		
Calcium	13.3J	mg/L	25.0	0.69	50	04/03/19 11:25	04/04/19 23:12	7440-70-2	D3	
Chromium	ND	mg/L	0.010	0.0016	1	04/03/19 11:25	04/04/19 23:06	7440-47-3		
Cobalt	ND	mg/L	0.010	0.00052	1	04/03/19 11:25	04/04/19 23:06	7440-48-4		
Lithium	0.013J	mg/L	0.050	0.00097	1	04/03/19 11:25	04/04/19 23:06	7439-93-2		
Molybdenum	0.0092J	mg/L	0.010	0.0019	1	04/03/19 11:25	04/04/19 23:06	7439-98-7		
Selenium	ND	mg/L	0.010	0.0014	1	04/03/19 11:25	04/04/19 23:06	7782-49-2		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	0.000040J	mg/L	0.00050	0.000036	1	04/03/19 07:45	04/03/19 12:41	7439-97-6	B	
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	87.0	mg/L	25.0	10.0	1		04/04/19 17:41		D6	
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Chloride	1.4	mg/L	0.25	0.024	1		04/05/19 07:41	16887-00-6		
Fluoride	0.036J	mg/L	0.30	0.029	1		04/05/19 07:41	16984-48-8		
Sulfate	8.0	mg/L	1.0	0.017	1		04/05/19 07:41	14808-79-8		

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ANALYTICAL RESULTS

Project: Plant Yates - Ash Pond 2
Pace Project No.: 2616783

Sample: YGWA-11		Lab ID: 2616783002		Collected: 03/28/19 15:08	Received: 03/29/19 16:05	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								
Arsenic	ND	mg/L	0.0050	0.00057	1	04/03/19 11:25	04/04/19 23:17	7440-38-2		
Barium	0.0082J	mg/L	0.010	0.00078	1	04/03/19 11:25	04/04/19 23:17	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000050	1	04/03/19 11:25	04/04/19 23:17	7440-41-7		
Boron	ND	mg/L	0.040	0.0039	1	04/03/19 11:25	04/04/19 23:17	7440-42-8		
Cadmium	ND	mg/L	0.0010	0.000093	1	04/03/19 11:25	04/04/19 23:17	7440-43-9		
Calcium	2.2	mg/L	0.50	0.014	1	04/03/19 11:25	04/04/19 23:17	7440-70-2		
Chromium	0.0021J	mg/L	0.010	0.0016	1	04/03/19 11:25	04/04/19 23:17	7440-47-3		
Cobalt	0.00091J	mg/L	0.010	0.00052	1	04/03/19 11:25	04/04/19 23:17	7440-48-4		
Lithium	0.0022J	mg/L	0.050	0.00097	1	04/03/19 11:25	04/04/19 23:17	7439-93-2		
Molybdenum	0.0082J	mg/L	0.010	0.0019	1	04/03/19 11:25	04/04/19 23:17	7439-98-7		
Selenium	ND	mg/L	0.010	0.0014	1	04/03/19 11:25	04/04/19 23:17	7782-49-2		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.000036	1	04/03/19 07:45	04/03/19 12:44	7439-97-6		
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	87.0	mg/L	25.0	10.0	1		04/04/19 17:42			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Chloride	1.5	mg/L	0.25	0.024	1		04/05/19 08:54	16887-00-6		
Fluoride	ND	mg/L	0.30	0.029	1		04/05/19 08:54	16984-48-8		
Sulfate	4.3	mg/L	1.0	0.017	1		04/05/19 08:54	14808-79-8		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Yates - Ash Pond 2

Pace Project No.: 2616783

Sample: YGWA-2I		Lab ID: 2616783003		Collected: 03/29/19 11:27		Received: 03/29/19 16:05		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							
Arsenic	0.00063J	mg/L	0.0050	0.00057	1	04/03/19 14:15	04/04/19 16:05	7440-38-2	
Barium	0.0039J	mg/L	0.010	0.00078	1	04/03/19 14:15	04/04/19 16:05	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	04/03/19 14:15	04/04/19 16:05	7440-41-7	
Boron	0.0065J	mg/L	0.040	0.0039	1	04/03/19 14:15	04/04/19 16:05	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000093	1	04/03/19 14:15	04/04/19 16:05	7440-43-9	
Calcium	23.5J	mg/L	25.0	0.69	50	04/03/19 14:15	04/04/19 16:11	7440-70-2	D3,M6
Chromium	ND	mg/L	0.010	0.0016	1	04/03/19 14:15	04/04/19 16:05	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	04/03/19 14:15	04/04/19 16:05	7440-48-4	
Lithium	0.0016J	mg/L	0.050	0.00097	1	04/03/19 14:15	04/04/19 16:05	7439-93-2	
Molybdenum	0.0041J	mg/L	0.010	0.0019	1	04/03/19 14:15	04/04/19 16:05	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	04/03/19 14:15	04/04/19 16:05	7782-49-2	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00050	0.000036	1	04/03/19 07:45	04/03/19 12:46	7439-97-6	
2540C Total Dissolved Solids		Analytical Method: SM 2540C							
Total Dissolved Solids	150	mg/L	25.0	10.0	1		04/04/19 17:42		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Chloride	1.2	mg/L	0.25	0.024	1		04/05/19 09:18	16887-00-6	
Fluoride	0.13J	mg/L	0.30	0.029	1		04/05/19 09:18	16984-48-8	
Sulfate	9.0	mg/L	1.0	0.017	1		04/05/19 09:18	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Yates - Ash Pond 2

Pace Project No.: 2616783

Sample: YGWA-14S		Lab ID: 2616783004		Collected: 03/29/19 13:50	Received: 03/29/19 16:05	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							
Arsenic	ND	mg/L	0.0050	0.00057	1	04/03/19 14:15	04/04/19 17:11	7440-38-2	
Barium	0.0066J	mg/L	0.010	0.00078	1	04/03/19 14:15	04/04/19 17:11	7440-39-3	
Beryllium	0.00017J	mg/L	0.0030	0.000050	1	04/03/19 14:15	04/04/19 17:11	7440-41-7	
Boron	0.014J	mg/L	0.040	0.0039	1	04/03/19 14:15	04/04/19 17:11	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000093	1	04/03/19 14:15	04/04/19 17:11	7440-43-9	
Calcium	1.1	mg/L	0.50	0.014	1	04/03/19 14:15	04/04/19 17:11	7440-70-2	
Chromium	ND	mg/L	0.010	0.0016	1	04/03/19 14:15	04/04/19 17:11	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	04/03/19 14:15	04/04/19 17:11	7440-48-4	
Lithium	ND	mg/L	0.050	0.00097	1	04/03/19 14:15	04/04/19 17:11	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	04/03/19 14:15	04/04/19 17:11	7439-98-7	
Selenium	0.0019J	mg/L	0.010	0.0014	1	04/03/19 14:15	04/04/19 17:11	7782-49-2	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00050	0.000036	1	04/03/19 07:45	04/03/19 12:48	7439-97-6	
2540C Total Dissolved Solids		Analytical Method: SM 2540C							
Total Dissolved Solids	63.0	mg/L	25.0	10.0	1		04/04/19 17:43		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Chloride	4.2	mg/L	0.25	0.024	1		04/05/19 09:43	16887-00-6	
Fluoride	ND	mg/L	0.30	0.029	1		04/05/19 09:43	16984-48-8	
Sulfate	7.3	mg/L	1.0	0.017	1		04/05/19 09:43	14808-79-8	

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ANALYTICAL RESULTS

Project: Plant Yates - Ash Pond 2

Pace Project No.: 2616783

Sample: DUP-1		Lab ID: 2616783005		Collected: 03/29/19 00:00	Received: 03/29/19 16:05	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								
Arsenic	ND	mg/L	0.0050	0.00057	1	04/03/19 14:15	04/04/19 17:22	7440-38-2		
Barium	0.0067J	mg/L	0.010	0.00078	1	04/03/19 14:15	04/04/19 17:22	7440-39-3		
Beryllium	0.00017J	mg/L	0.0030	0.000050	1	04/03/19 14:15	04/04/19 17:22	7440-41-7		
Boron	0.014J	mg/L	0.040	0.0039	1	04/03/19 14:15	04/04/19 17:22	7440-42-8		
Cadmium	ND	mg/L	0.0010	0.000093	1	04/03/19 14:15	04/04/19 17:22	7440-43-9		
Calcium	1.1	mg/L	0.50	0.014	1	04/03/19 14:15	04/04/19 17:22	7440-70-2		
Chromium	ND	mg/L	0.010	0.0016	1	04/03/19 14:15	04/04/19 17:22	7440-47-3		
Cobalt	ND	mg/L	0.010	0.00052	1	04/03/19 14:15	04/04/19 17:22	7440-48-4		
Lithium	ND	mg/L	0.050	0.00097	1	04/03/19 14:15	04/04/19 17:22	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.0019	1	04/03/19 14:15	04/04/19 17:22	7439-98-7		
Selenium	0.0019J	mg/L	0.010	0.0014	1	04/03/19 14:15	04/04/19 17:22	7782-49-2		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.000036	1	04/03/19 07:45	04/03/19 12:51	7439-97-6		
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	62.0	mg/L	25.0	10.0	1		04/04/19 17:44			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Chloride	4.2	mg/L	0.25	0.024	1		04/05/19 10:07	16887-00-6		
Fluoride	ND	mg/L	0.30	0.029	1		04/05/19 10:07	16984-48-8		
Sulfate	7.2	mg/L	1.0	0.017	1		04/05/19 10:07	14808-79-8		

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Yates - Ash Pond 2
Pace Project No.: 2616783

QC Batch: 25614 Analysis Method: EPA 7470A
QC Batch Method: EPA 7470A Analysis Description: 7470 Mercury
Associated Lab Samples: 2616783001, 2616783002, 2616783003, 2616783004, 2616783005

METHOD BLANK: 115427 Matrix: Water
Associated Lab Samples: 2616783001, 2616783002, 2616783003, 2616783004, 2616783005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	0.000039J	0.00050	0.000036	04/03/19 12:11	

LABORATORY CONTROL SAMPLE: 115428

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.0025	0.0025	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 115429 115430

Parameter	Units	2616671001		115429		115430		% Rec Limits	RPD	Max RPD	Qual
		MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.				
Mercury	mg/L	0.000039J	0.0025	0.0025	0.0023	0.0023	90	90	75-125	0	20

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 115556 115557

Parameter	Units	2616482004		115556		115557		% Rec Limits	RPD	Max RPD	Qual
		MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.				
Mercury	mg/L	ND	0.0025	0.0025	0.0023	0.0024	92	93	75-125	1	20

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QUALITY CONTROL DATA

Project: Plant Yates - Ash Pond 2
Pace Project No.: 2616783

QC Batch: 25683 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020B MET
Associated Lab Samples: 2616783001, 2616783002

METHOD BLANK: 115845 Matrix: Water
Associated Lab Samples: 2616783001, 2616783002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic	mg/L	ND	0.0050	0.00057	04/04/19 18:37	
Barium	mg/L	ND	0.010	0.00078	04/04/19 18:37	
Beryllium	mg/L	ND	0.0030	0.000050	04/04/19 18:37	
Boron	mg/L	ND	0.040	0.0039	04/04/19 18:37	
Cadmium	mg/L	ND	0.0010	0.000093	04/04/19 18:37	
Calcium	mg/L	ND	0.50	0.014	04/04/19 18:37	
Chromium	mg/L	ND	0.010	0.0016	04/04/19 18:37	
Cobalt	mg/L	ND	0.010	0.00052	04/04/19 18:37	
Lithium	mg/L	ND	0.050	0.00097	04/04/19 18:37	
Molybdenum	mg/L	ND	0.010	0.0019	04/04/19 18:37	
Selenium	mg/L	ND	0.010	0.0014	04/04/19 18:37	

LABORATORY CONTROL SAMPLE: 115846

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/L	0.1	0.10	100	80-120	
Barium	mg/L	0.1	0.099	99	80-120	
Beryllium	mg/L	0.1	0.10	100	80-120	
Boron	mg/L	1	1.0	100	80-120	
Cadmium	mg/L	0.1	0.10	100	80-120	
Calcium	mg/L	1	0.97	97	80-120	
Chromium	mg/L	0.1	0.10	100	80-120	
Cobalt	mg/L	0.1	0.096	96	80-120	
Lithium	mg/L	0.1	0.10	101	80-120	
Molybdenum	mg/L	0.1	0.10	101	80-120	
Selenium	mg/L	0.1	0.10	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 115847 115848

Parameter	Units	2616761004 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	MS Conc.	Spike Conc.	MSD Conc.						
Arsenic	mg/L	ND	0.1	0.1	0.10	0.10	101	102	75-125	1	20	
Barium	mg/L	0.026	0.1	0.1	0.12	0.13	99	101	75-125	2	20	
Beryllium	mg/L	ND	0.1	0.1	0.092	0.094	92	94	75-125	1	20	
Boron	mg/L	0.89	1	1	1.8	1.8	94	89	75-125	2	20	
Cadmium	mg/L	0.00011J	0.1	0.1	0.10	0.10	100	101	75-125	1	20	
Calcium	mg/L	54.2	1	1	58.6	54.4	439	16	75-125	7	20 M6	
Chromium	mg/L	ND	0.1	0.1	0.098	0.10	98	100	75-125	3	20	

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QUALITY CONTROL DATA

Project: Plant Yates - Ash Pond 2

Pace Project No.: 2616783

Parameter	Units	115847		115848		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	RPD	Qual
		2616761004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result								
Cobalt	mg/L	0.041	0.1	0.1	0.14	0.14	96	98	75-125	2	20		
Lithium	mg/L	0.0076J	0.1	0.1	0.10	0.10	92	93	75-125	2	20		
Molybdenum	mg/L	0.0023J	0.1	0.1	0.11	0.11	105	104	75-125	0	20		
Selenium	mg/L	ND	0.1	0.1	0.10	0.11	100	105	75-125	5	20		

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QUALITY CONTROL DATA

Project: Plant Yates - Ash Pond 2
Pace Project No.: 2616783

QC Batch: 25684 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020B MET
Associated Lab Samples: 2616783003, 2616783004, 2616783005

METHOD BLANK: 115849 Matrix: Water
Associated Lab Samples: 2616783003, 2616783004, 2616783005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic	mg/L	ND	0.0050	0.00057	04/04/19 15:54	
Barium	mg/L	ND	0.010	0.00078	04/04/19 15:54	
Beryllium	mg/L	ND	0.0030	0.000050	04/04/19 15:54	
Boron	mg/L	ND	0.040	0.0039	04/04/19 15:54	
Cadmium	mg/L	ND	0.0010	0.000093	04/04/19 15:54	
Calcium	mg/L	ND	0.50	0.014	04/04/19 15:54	
Chromium	mg/L	ND	0.010	0.0016	04/04/19 15:54	
Cobalt	mg/L	ND	0.010	0.00052	04/04/19 15:54	
Lithium	mg/L	ND	0.050	0.00097	04/04/19 15:54	
Molybdenum	mg/L	ND	0.010	0.0019	04/04/19 15:54	
Selenium	mg/L	ND	0.010	0.0014	04/04/19 15:54	

LABORATORY CONTROL SAMPLE: 115850

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/L	0.1	0.10	102	80-120	
Barium	mg/L	0.1	0.10	102	80-120	
Beryllium	mg/L	0.1	0.099	99	80-120	
Boron	mg/L	1	0.99	99	80-120	
Cadmium	mg/L	0.1	0.10	101	80-120	
Calcium	mg/L	1	0.99	99	80-120	
Chromium	mg/L	0.1	0.10	101	80-120	
Cobalt	mg/L	0.1	0.099	99	80-120	
Lithium	mg/L	0.1	0.097	97	80-120	
Molybdenum	mg/L	0.1	0.10	103	80-120	
Selenium	mg/L	0.1	0.10	103	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 115851 115852

Parameter	Units	2616783003 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	MS Spike Conc.	MSD Spike Conc.	MS Result						
Arsenic	mg/L	0.00063J	0.1	0.1	0.10	0.10	101	101	75-125	0	20	
Barium	mg/L	0.0039J	0.1	0.1	0.10	0.10	99	100	75-125	1	20	
Beryllium	mg/L	ND	0.1	0.1	0.095	0.097	95	97	75-125	3	20	
Boron	mg/L	0.0065J	1	1	0.93	0.97	92	96	75-125	4	20	
Cadmium	mg/L	ND	0.1	0.1	0.10	0.10	100	102	75-125	2	20	
Calcium	mg/L	23.5J	1	1	24.8J	24.8J	124	132	75-125	0	20	M6
Chromium	mg/L	ND	0.1	0.1	0.097	0.10	97	101	75-125	4	20	

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QUALITY CONTROL DATA

Project: Plant Yates - Ash Pond 2

Pace Project No.: 2616783

Parameter	Units	MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 115851		115852		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	RPD	Qual
		2616783003 Result	MS Spike Conc.	MSD Spike Conc.									
Cobalt	mg/L	ND	0.1	0.1	0.098	0.10	98	99	75-125	2	20		
Lithium	mg/L	0.0016J	0.1	0.1	0.094	0.099	93	98	75-125	5	20		
Molybdenum	mg/L	0.0041J	0.1	0.1	0.11	0.11	104	105	75-125	1	20		
Selenium	mg/L	ND	0.1	0.1	0.10	0.10	102	101	75-125	0	20		

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QUALITY CONTROL DATA

Project: Plant Yates - Ash Pond 2

Pace Project No.: 2616783

QC Batch: 25772 Analysis Method: SM 2540C

QC Batch Method: SM 2540C Analysis Description: 2540C Total Dissolved Solids

Associated Lab Samples: 2616783001, 2616783002, 2616783003, 2616783004, 2616783005

LABORATORY CONTROL SAMPLE: 116265

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	403	101	84-108	

SAMPLE DUPLICATE: 116266

Parameter	Units	2616783001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	87.0	115	28	10	D6

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QUALITY CONTROL DATA

Project: Plant Yates - Ash Pond 2

Pace Project No.: 2616783

QC Batch: 25767 Analysis Method: EPA 300.0

QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions

Associated Lab Samples: 2616783001, 2616783002, 2616783003, 2616783004, 2616783005

METHOD BLANK: 116241 Matrix: Water

Associated Lab Samples: 2616783001, 2616783002, 2616783003, 2616783004, 2616783005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.024	04/05/19 06:52	
Fluoride	mg/L	ND	0.30	0.029	04/05/19 06:52	
Sulfate	mg/L	ND	1.0	0.017	04/05/19 06:52	

LABORATORY CONTROL SAMPLE: 116242

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	10	10.0	100	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: 116243 116244

Parameter	Units	MS		MSD		MS		MSD		% Rec Limits	Max RPD	Qual
		2616783001 Result	Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec				
Chloride	mg/L	1.4	10	10	11.5	11.5	101	101	90-110	0	15	
Fluoride	mg/L	0.036J	10	10	10.5	10.4	104	103	90-110	1	15	
Sulfate	mg/L	8.0	10	10	17.2	17.2	92	92	90-110	0	15	

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QUALIFIERS

Project: Plant Yates - Ash Pond 2

Pace Project No.: 2616783

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.

M6 Matrix spike and Matrix spike duplicate recovery not evaluated against control limits due to sample dilution.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Yates - Ash Pond 2

Pace Project No.: 2616783

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2616783001	YGWA-1D	EPA 3005A	25683	EPA 6020B	25758
2616783002	YGWA-1I	EPA 3005A	25683	EPA 6020B	25758
2616783003	YGWA-2I	EPA 3005A	25684	EPA 6020B	25759
2616783004	YGWA-14S	EPA 3005A	25684	EPA 6020B	25759
2616783005	DUP-1	EPA 3005A	25684	EPA 6020B	25759
2616783001	YGWA-1D	EPA 7470A	25614	EPA 7470A	25682
2616783002	YGWA-1I	EPA 7470A	25614	EPA 7470A	25682
2616783003	YGWA-2I	EPA 7470A	25614	EPA 7470A	25682
2616783004	YGWA-14S	EPA 7470A	25614	EPA 7470A	25682
2616783005	DUP-1	EPA 7470A	25614	EPA 7470A	25682
2616783001	YGWA-1D	SM 2540C	25772		
2616783002	YGWA-1I	SM 2540C	25772		
2616783003	YGWA-2I	SM 2540C	25772		
2616783004	YGWA-14S	SM 2540C	25772		
2616783005	DUP-1	SM 2540C	25772		
2616783001	YGWA-1D	EPA 300.0	25767		
2616783002	YGWA-1I	EPA 300.0	25767		
2616783003	YGWA-2I	EPA 300.0	25767		
2616783004	YGWA-14S	EPA 300.0	25767		
2616783005	DUP-1	EPA 300.0	25767		

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

PAGE: 1 OF 1



CLIENT NAME: Georgia Power
CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER: 241 Ralph McGill Blvd SE B10185
 Atlanta, GA 30308
 404-506-7239
REPORT TO: Joju Abraham
REQUESTED COMPLETION DATE: PO #:
PROJECT NAME/STATE: Plant Yates - Ash Pond 2
PROJECT #:

Collection DATE	Collection TIME	MATRIX CODE*	C O M P	SAMPLE IDENTIFICATION	ANALYSIS REQUESTED			CONTAINER TYPE: PRESERVATION	CONTAINER TYPE PRESERVATION
					P	P	P		
3-28-19	1143	GW	✓	YGWA-1D	3	7	3		L A B
3-28-19	1506	GW	✓	YGWA-1E					I D
3-29-19	1127	GW	✓	YGWA-2I					N U M B E R
3-29-19	1350	GW	✓	YGWA-14S					
3-29-19	---	GW	✓	Dup-1					

Metals App. III (EPA 6020/7470) Boron, Calcium
 Cl, F, SO₄ & TDS (EPA 300.0 & SM 2540C)
 Detected App IV (See List below)
 Det. App. IV Radium 226 & 228 (SW-846 9315/9320)

RECEIVED BY LAB:	DATE/TIME:	RECEIVED BY:	DATE/TIME:	RELINQUISHED BY:	DATE/TIME:	RELINQUISHED BY:	DATE/TIME:
<i>Hunter Field</i>	3/29/19 1605			<i>Att Del</i>	3-29-19/1605		

RECEIVED BY LAB: *Hunter Field* **DATE/TIME:** 3/29/19 1605
 pH checked: Yes No Ice: Yes No NA Temperature: Min: Max: 8°
 SAMPLE SHIPPED VIA: UPS FED-EX USPS COURIER CLIENT OTHER
 Custody Seal: Intact Broken Not Present # of Coolers: Cooler ID:

LAB #: **WO#: 2616783**
 Entered into LIMS:

 2616783
FOR LAB USE ONLY



Sample Condition Upon Receipt

WO#: 2616783

Client Name: Georgia Power CCR

PM: BM

Due Date: 04/05/19

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 083

Type of Ice: Wet Blue None

Samples on ice, cooling process has begun

Cooler Temperature 2C

Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: 3/29/19 JW

Temp should be above freezing to 6°C

Comments:

Table with 16 rows of checklist items including Chain of Custody Present, Samples Arrived within Hold Time, Short Hold Time Analysis, etc.

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)

April 26, 2019

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

RE: Project: Plant Yates - Ash Pond 2
Pace Project No.: 2616784

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 - Ash Pond 2
Pace Project No.: 2616784

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 2

Pace Project No.: 2616784

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2616784001	YGWA-1D	Water	03/28/19 11:43	03/29/19 16:05
2616784002	YGWA-1I	Water	03/28/19 15:08	03/29/19 16:05
2616784003	YGWA-2I	Water	03/29/19 11:27	03/29/19 16:05
2616784004	YGWA-14S	Water	03/29/19 13:50	03/29/19 16:05
2616784005	DUP-1	Water	03/29/19 00:00	03/29/19 16:05

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: Plant Yates - Ash Pond 2

Pace Project No.: 2616784

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2616784001	YGWA-1D	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2616784002	YGWA-1I	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2616784003	YGWA-2I	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2616784004	YGWA-14S	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2616784005	DUP-1	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates - Ash Pond 2

Pace Project No.: 2616784

Sample: YGWA-1D **Lab ID: 2616784001** Collected: 03/28/19 11:43 Received: 03/29/19 16:05 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.915 ± 0.382 (0.386) C:91% T:NA	pCi/L	04/12/19 09:46	13982-63-3	
Radium-228	EPA 9320	0.219 ± 0.432 (0.951) C:70% T:76%	pCi/L	04/15/19 14:45	15262-20-1	
Total Radium	Total Radium Calculation	1.13 ± 0.814 (1.34)	pCi/L	04/17/19 13:15	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates - Ash Pond 2

Pace Project No.: 2616784

Sample: YGWA-1I **Lab ID: 2616784002** Collected: 03/28/19 15:08 Received: 03/29/19 16:05 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.116 ± 0.205 (0.463) C:91% T:NA	pCi/L	04/12/19 09:46	13982-63-3	
Radium-228	EPA 9320	0.00934 ± 0.359 (0.830) C:71% T:85%	pCi/L	04/15/19 14:45	15262-20-1	
Total Radium	Total Radium Calculation	0.125 ± 0.564 (1.29)	pCi/L	04/17/19 13:15	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates - Ash Pond 2

Pace Project No.: 2616784

Sample: YGWA-2I **Lab ID: 2616784003** Collected: 03/29/19 11:27 Received: 03/29/19 16:05 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.0665 ± 0.153 (0.365) C:95% T:NA	pCi/L	04/12/19 09:46	13982-63-3	
Radium-228	EPA 9320	0.157 ± 0.408 (0.910) C:73% T:79%	pCi/L	04/15/19 14:46	15262-20-1	
Total Radium	Total Radium Calculation	0.224 ± 0.561 (1.28)	pCi/L	04/17/19 13:15	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates - Ash Pond 2

Pace Project No.: 2616784

Sample: YGWA-14S **Lab ID: 2616784004** Collected: 03/29/19 13:50 Received: 03/29/19 16:05 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	-0.00815 ± 0.175 (0.486) C:95% T:NA	pCi/L	04/12/19 09:46	13982-63-3	
Radium-228	EPA 9320	-0.248 ± 0.421 (1.03) C:73% T:67%	pCi/L	04/15/19 14:46	15262-20-1	
Total Radium	Total Radium Calculation	0.000 ± 0.596 (1.52)	pCi/L	04/17/19 13:15	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates - Ash Pond 2

Pace Project No.: 2616784

Sample: DUP-1 **Lab ID: 2616784005** Collected: 03/29/19 00:00 Received: 03/29/19 16:05 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.108 ± 0.171 (0.375) C:97% T:NA	pCi/L	04/12/19 09:46	13982-63-3	
Radium-228	EPA 9320	0.235 ± 0.431 (0.942) C:74% T:86%	pCi/L	04/15/19 14:45	15262-20-1	
Total Radium	Total Radium Calculation	0.343 ± 0.602 (1.32)	pCi/L	04/17/19 13:15	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Yates - Ash Pond 2

Pace Project No.: 2616784

QC Batch: 337392 Analysis Method: EPA 9315

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

Associated Lab Samples: 2616784001, 2616784002, 2616784003, 2616784004, 2616784005

METHOD BLANK: 1642069 Matrix: Water

Associated Lab Samples: 2616784001, 2616784002, 2616784003, 2616784004, 2616784005

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.117 ± 0.178 (0.382) C:94% T:NA	pCi/L	04/12/19 08:07	

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 2

Pace Project No.: 2616784

QC Batch: 337074

Analysis Method: EPA 9320

QC Batch Method: EPA 9320

Analysis Description: 9320 Radium 228

Associated Lab Samples: 2616784001, 2616784002, 2616784003, 2616784004, 2616784005

METHOD BLANK: 1640714

Matrix: Water

Associated Lab Samples: 2616784001, 2616784002, 2616784003, 2616784004, 2616784005

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.217 ± 0.385 (0.842) C:74% T:77%	pCi/L	04/15/19 14:45	

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

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: Plant Yates - Ash Pond 2

Pace Project No.: 2616784

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 2

Pace Project No.: 2616784

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2616784001	YGWA-1D	EPA 9315	337392		
2616784002	YGWA-1I	EPA 9315	337392		
2616784003	YGWA-2I	EPA 9315	337392		
2616784004	YGWA-14S	EPA 9315	337392		
2616784005	DUP-1	EPA 9315	337392		
2616784001	YGWA-1D	EPA 9320	337074		
2616784002	YGWA-1I	EPA 9320	337074		
2616784003	YGWA-2I	EPA 9320	337074		
2616784004	YGWA-14S	EPA 9320	337074		
2616784005	DUP-1	EPA 9320	337074		
2616784001	YGWA-1D	Total Radium Calculation	338683		
2616784002	YGWA-1I	Total Radium Calculation	338683		
2616784003	YGWA-2I	Total Radium Calculation	338683		
2616784004	YGWA-14S	Total Radium Calculation	338683		
2616784005	DUP-1	Total Radium Calculation	338683		

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

PAGE: _____ OF _____

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

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

Collection DATE	Collection TIME	MATRIX CODE*	C O M P	G R A B	SAMPLE IDENTIFICATION	ANALYSIS REQUESTED			CONTAINER TYPE	P	P	P	ANALYSIS REQUESTED	L	CONTAINER TYPE	PRESERVATION
						Metals App. III (EPA 6020/7470)	Boron, Calcium	Cl, F, SO ₄ & TDS (EPA 300.0 & SM 2540C)								
3-26-19	1143	GW	✓		YGWA-1D	✓	✓	✓								
3-28-19	1506	GW	✓		YGWA-1E	✓	✓	✓								
3-29-19	1127	GW	✓		YGWA-2I	✓	✓	✓								
3-29-19	1350	GW	✓		YGWA-14S	✓	✓	✓								
3-29-19	---	GW	✓		Dup-1	✓	✓	✓								

SAMPLED BY AND TITLE: Hunter Field
 RECEIVED BY: _____
 DATE/TIME: 3-29-19
 DATE/TIME: _____
 RELINQUISHED BY: *Atto Del*
 DATE/TIME: 3-29-19/1605
 DATE/TIME: _____

RECEIVED BY LAB: *Services World*
 pH checked: Yes No NA
 Temperature: 3/29/19 1605
 Min: _____ Max: 2°
 SAMPLE SHIPPED VIA: UPS FED-EX USPS COURIER OTHER
 Custody Seal: Intact Broken (Not Present)
 # of Coolers: _____
 Cooler ID: _____

APP III, plus Detected APP IV

Detected APP IV: Arsenic, Barium, Beryllium, Cadmium, Chromium, Cobalt, Fluoride, Lithium, Mercury, Molybdenum, Selenium, Radium

Bolded Detections: Listed above or included with App III

Yates Ash Pond 2 - Blank COCs.xlsx

LAB #: _____ FOR LAB USE ONLY

Entered into LIMS: **W0#: 2616784**

2616784



Sample Condition Upon Receipt

WO#: 2616784

Client Name: Georgia Power CCR

PM: BM
CLIENT: GAPower-CCR

Due Date: 04/26/19

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 083 Type of Ice: Wet Blue None Samples on ice, cooling process has begun

Cooler Temperature 2C Biological Tissue is Frozen: Yes No

Temp should be above freezing to 6°C

Date and Initials of person examining contents: 3/29/19 JW

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>WT</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)

April 10, 2019

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

RE: Project: Plant Yates Ash Ponds
Pace Project No.: 2616901

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on April 02, 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 Ponds

Pace Project No.: 2616901

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

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SAMPLE SUMMARY

Project: Plant Yates Ash Ponds
Pace Project No.: 2616901

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2616901001	YGWA-3I	Water	04/01/19 15:35	04/02/19 17:10
2616901002	YGWA-3D	Water	04/01/19 12:16	04/02/19 17:10
2616901003	YGWA-30I	Water	04/01/19 13:05	04/02/19 17:10
2616901004	YGWC-26S	Water	04/02/19 12:03	04/02/19 17:10
2616901005	YGWC-26I	Water	04/02/19 13:53	04/02/19 17:10
2616901006	YGWC-27S	Water	04/01/19 15:40	04/02/19 17:10
2616901007	YGWC-27I	Water	04/01/19 16:35	04/02/19 17:10
2616901008	YGWC-28S	Water	04/02/19 13:00	04/02/19 17:10
2616901009	YGWC-28I	Water	04/01/19 16:15	04/02/19 17:10
2616901010	YGWC-29I	Water	04/01/19 14:46	04/02/19 17:10
2616901011	EB-1-4-1-19	Water	04/01/19 12:45	04/02/19 17:10
2616901012	EB-2-4-2-19	Water	04/02/19 10:25	04/02/19 17:10
2616901013	Dup-2	Water	04/02/19 00:00	04/02/19 17:10
2616901014	FB-1-4-1-19	Water	04/01/19 14:35	04/02/19 17:10
2616901015	FB-2-4-2-19	Water	04/02/19 10:40	04/02/19 17:10

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SAMPLE ANALYTE COUNT

Project: Plant Yates Ash Ponds

Pace Project No.: 2616901

Lab ID	Sample ID	Method	Analysts	Analytes Reported
2616901001	YGWA-3I	EPA 6020B	CSW	11
		EPA 7470A	DRB	1
		SM 2540C	RLC	1
		EPA 300.0	RLC	3
2616901002	YGWA-3D	EPA 6020B	CSW	11
		EPA 7470A	DRB	1
		SM 2540C	RLC	1
		EPA 300.0	RLC	3
2616901003	YGWA-30I	EPA 6020B	CSW	11
		EPA 7470A	DRB	1
		SM 2540C	RLC	1
		EPA 300.0	RLC	3
2616901004	YGWC-26S	EPA 6020B	CSW	11
		EPA 7470A	DRB	1
		SM 2540C	RLC	1
		EPA 300.0	RLC	3
2616901005	YGWC-26I	EPA 6020B	CSW	11
		EPA 7470A	DRB	1
		SM 2540C	RLC	1
		EPA 300.0	RLC	3
2616901006	YGWC-27S	EPA 6020B	CSW	11
		EPA 7470A	DRB	1
		SM 2540C	RLC	1
		EPA 300.0	RLC	3
2616901007	YGWC-27I	EPA 6020B	CSW	11
		EPA 7470A	DRB	1
		SM 2540C	RLC	1
		EPA 300.0	RLC	3
2616901008	YGWC-28S	EPA 6020B	CSW	11
		EPA 7470A	DRB	1
		SM 2540C	RLC	1
		EPA 300.0	RLC	3
2616901009	YGWC-28I	EPA 6020B	CSW	11
		EPA 7470A	DRB	1
		SM 2540C	RLC	1
		EPA 300.0	RLC	3
2616901010	YGWC-29I	EPA 6020B	CSW	11

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SAMPLE ANALYTE COUNT

Project: Plant Yates Ash Ponds

Pace Project No.: 2616901

Lab ID	Sample ID	Method	Analysts	Analytes Reported
		EPA 7470A	DRB	1
		SM 2540C	RLC	1
		EPA 300.0	RLC	3
2616901011	EB-1-4-1-19	EPA 6020B	CSW	11
		EPA 7470A	DRB	1
		SM 2540C	RLC	1
		EPA 300.0	RLC	3
2616901012	EB-2-4-2-19	EPA 6020B	CSW	11
		EPA 7470A	DRB	1
		SM 2540C	RLC	1
		EPA 300.0	RLC	3
2616901013	Dup-2	EPA 6020B	CSW	11
		EPA 7470A	DRB	1
		SM 2540C	RLC	1
		EPA 300.0	RLC	3
2616901014	FB-1-4-1-19	EPA 6020B	CSW	11
		EPA 7470A	DRB	1
		SM 2540C	RLC	1
		EPA 300.0	RLC	3
2616901015	FB-2-4-2-19	EPA 6020B	CSW	11
		EPA 7470A	DRB	1
		SM 2540C	RLC	1
		EPA 300.0	RLC	3

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ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds

Pace Project No.: 2616901

Sample: YGWA-3I Lab ID: 2616901001 Collected: 04/01/19 15:35 Received: 04/02/19 17:10 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									
Arsenic	ND	mg/L	0.0050	0.00057	1	04/05/19 14:47	04/08/19 18:57	7440-38-2	
Barium	0.0030J	mg/L	0.010	0.00078	1	04/05/19 14:47	04/08/19 18:57	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	04/05/19 14:47	04/08/19 18:57	7440-41-7	
Boron	ND	mg/L	0.040	0.0039	1	04/05/19 14:47	04/08/19 18:57	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000093	1	04/05/19 14:47	04/08/19 18:57	7440-43-9	
Calcium	20.4J	mg/L	25.0	0.69	50	04/05/19 14:47	04/08/19 19:03	7440-70-2	D3
Chromium	ND	mg/L	0.010	0.0016	1	04/05/19 14:47	04/08/19 18:57	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	04/05/19 14:47	04/08/19 18:57	7440-48-4	
Lithium	0.013J	mg/L	0.050	0.00097	1	04/05/19 14:47	04/08/19 18:57	7439-93-2	
Molybdenum	0.0021J	mg/L	0.010	0.0019	1	04/05/19 14:47	04/08/19 18:57	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	04/05/19 14:47	04/08/19 18:57	7782-49-2	
7470 Mercury Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Mercury	0.000084J	mg/L	0.00050	0.000036	1	04/04/19 13:48	04/05/19 17:58	7439-97-6	B
2540C Total Dissolved Solids Analytical Method: SM 2540C									
Total Dissolved Solids	19.0J	mg/L	25.0	10.0	1		04/04/19 17:45		
300.0 IC Anions 28 Days Analytical Method: EPA 300.0									
Chloride	1.1	mg/L	0.25	0.024	1		04/06/19 01:34	16887-00-6	
Fluoride	0.10J	mg/L	0.30	0.029	1		04/06/19 01:34	16984-48-8	
Sulfate	8.5	mg/L	1.0	0.017	1		04/06/19 01:34	14808-79-8	

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ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds

Pace Project No.: 2616901

Sample: YGWA-3D		Lab ID: 2616901002		Collected: 04/01/19 12:16		Received: 04/02/19 17:10		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							
Arsenic	ND	mg/L	0.0050	0.00057	1	04/05/19 14:47	04/08/19 19:09	7440-38-2	
Barium	0.0064J	mg/L	0.010	0.00078	1	04/05/19 14:47	04/08/19 19:09	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	04/05/19 14:47	04/08/19 19:09	7440-41-7	
Boron	ND	mg/L	0.040	0.0039	1	04/05/19 14:47	04/08/19 19:09	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000093	1	04/05/19 14:47	04/08/19 19:09	7440-43-9	
Calcium	30.1	mg/L	25.0	0.69	50	04/05/19 14:47	04/08/19 19:15	7440-70-2	
Chromium	ND	mg/L	0.010	0.0016	1	04/05/19 14:47	04/08/19 19:09	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	04/05/19 14:47	04/08/19 19:09	7440-48-4	
Lithium	0.021J	mg/L	0.050	0.00097	1	04/05/19 14:47	04/08/19 19:09	7439-93-2	
Molybdenum	0.012	mg/L	0.010	0.0019	1	04/05/19 14:47	04/08/19 19:09	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	04/05/19 14:47	04/08/19 19:09	7782-49-2	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	0.000096J	mg/L	0.00050	0.000036	1	04/04/19 13:48	04/05/19 18:00	7439-97-6	B
2540C Total Dissolved Solids		Analytical Method: SM 2540C							
Total Dissolved Solids	149	mg/L	25.0	10.0	1		04/04/19 17:46		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Chloride	1.2	mg/L	0.25	0.024	1		04/06/19 01:56	16887-00-6	
Fluoride	0.45	mg/L	0.30	0.029	1		04/06/19 01:56	16984-48-8	
Sulfate	7.2	mg/L	1.0	0.017	1		04/06/19 01:56	14808-79-8	

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ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds

Pace Project No.: 2616901

Sample: YGWA-30I		Lab ID: 2616901003		Collected: 04/01/19 13:05		Received: 04/02/19 17:10		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								
Arsenic	ND	mg/L	0.0050	0.00057	1	04/05/19 14:47	04/08/19 19:32	7440-38-2		
Barium	0.0072J	mg/L	0.010	0.00078	1	04/05/19 14:47	04/08/19 19:32	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000050	1	04/05/19 14:47	04/08/19 19:32	7440-41-7		
Boron	ND	mg/L	0.040	0.0039	1	04/05/19 14:47	04/08/19 19:32	7440-42-8		
Cadmium	ND	mg/L	0.0010	0.000093	1	04/05/19 14:47	04/08/19 19:32	7440-43-9		
Calcium	1.3	mg/L	0.50	0.014	1	04/05/19 14:47	04/08/19 19:32	7440-70-2		
Chromium	ND	mg/L	0.010	0.0016	1	04/05/19 14:47	04/08/19 19:32	7440-47-3		
Cobalt	0.022	mg/L	0.010	0.00052	1	04/05/19 14:47	04/08/19 19:32	7440-48-4		
Lithium	0.0010J	mg/L	0.050	0.00097	1	04/05/19 14:47	04/08/19 19:32	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.0019	1	04/05/19 14:47	04/08/19 19:32	7439-98-7		
Selenium	ND	mg/L	0.010	0.0014	1	04/05/19 14:47	04/08/19 19:32	7782-49-2		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	0.000082J	mg/L	0.00050	0.000036	1	04/04/19 13:48	04/05/19 18:03	7439-97-6	B	
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	54.0	mg/L	25.0	10.0	1		04/04/19 17:46			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Chloride	1.7	mg/L	0.25	0.024	1		04/06/19 02:18	16887-00-6		
Fluoride	ND	mg/L	0.30	0.029	1		04/06/19 02:18	16984-48-8		
Sulfate	0.96J	mg/L	1.0	0.017	1		04/06/19 02:18	14808-79-8		

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ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds

Pace Project No.: 2616901

Sample: YGWC-26S		Lab ID: 2616901004		Collected: 04/02/19 12:03	Received: 04/02/19 17:10	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								
Arsenic	ND	mg/L	0.0050	0.00057	1	04/05/19 14:47	04/08/19 19:43	7440-38-2		
Barium	0.027	mg/L	0.010	0.00078	1	04/05/19 14:47	04/08/19 19:43	7440-39-3		
Beryllium	0.00015J	mg/L	0.0030	0.000050	1	04/05/19 14:47	04/08/19 19:43	7440-41-7		
Boron	0.63	mg/L	0.040	0.0039	1	04/05/19 14:47	04/08/19 19:43	7440-42-8		
Cadmium	ND	mg/L	0.0010	0.000093	1	04/05/19 14:47	04/08/19 19:43	7440-43-9		
Calcium	11.9J	mg/L	25.0	0.69	50	04/05/19 14:47	04/08/19 19:49	7440-70-2	D3,M6, R1	
Chromium	0.0030J	mg/L	0.010	0.0016	1	04/05/19 14:47	04/08/19 19:43	7440-47-3		
Cobalt	0.0022J	mg/L	0.010	0.00052	1	04/05/19 14:47	04/08/19 19:43	7440-48-4		
Lithium	ND	mg/L	0.050	0.00097	1	04/05/19 14:47	04/08/19 19:43	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.0019	1	04/05/19 14:47	04/08/19 19:43	7439-98-7		
Selenium	ND	mg/L	0.010	0.0014	1	04/05/19 14:47	04/08/19 19:43	7782-49-2		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	0.000066J	mg/L	0.00050	0.000036	1	04/04/19 13:48	04/05/19 18:10	7439-97-6	B	
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	224	mg/L	25.0	10.0	1		04/08/19 15:28			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Chloride	13.5	mg/L	0.25	0.024	1		04/06/19 02:40	16887-00-6		
Fluoride	ND	mg/L	0.30	0.029	1		04/06/19 02:40	16984-48-8		
Sulfate	94.5	mg/L	10.0	0.17	10		04/06/19 10:59	14808-79-8		

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ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds

Pace Project No.: 2616901

Sample: YGWC-26I		Lab ID: 2616901005		Collected: 04/02/19 13:53		Received: 04/02/19 17:10		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							
Arsenic	ND	mg/L	0.0050	0.00057	1	04/05/19 14:47	04/08/19 20:35	7440-38-2	
Barium	0.065	mg/L	0.010	0.00078	1	04/05/19 14:47	04/08/19 20:35	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	04/05/19 14:47	04/08/19 20:35	7440-41-7	
Boron	0.90	mg/L	0.040	0.0039	1	04/05/19 14:47	04/08/19 20:35	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000093	1	04/05/19 14:47	04/08/19 20:35	7440-43-9	
Calcium	16.1J	mg/L	25.0	0.69	50	04/05/19 14:47	04/08/19 20:41	7440-70-2	D3
Chromium	ND	mg/L	0.010	0.0016	1	04/05/19 14:47	04/08/19 20:35	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	04/05/19 14:47	04/08/19 20:35	7440-48-4	
Lithium	0.0064J	mg/L	0.050	0.00097	1	04/05/19 14:47	04/08/19 20:35	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	04/05/19 14:47	04/08/19 20:35	7439-98-7	
Selenium	0.0017J	mg/L	0.010	0.0014	1	04/05/19 14:47	04/08/19 20:35	7782-49-2	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	0.000051J	mg/L	0.00050	0.000036	1	04/04/19 13:48	04/05/19 18:12	7439-97-6	B
2540C Total Dissolved Solids		Analytical Method: SM 2540C							
Total Dissolved Solids	223	mg/L	25.0	10.0	1		04/08/19 15:28		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Chloride	17.9	mg/L	0.25	0.024	1		04/06/19 03:02	16887-00-6	
Fluoride	0.071J	mg/L	0.30	0.029	1		04/06/19 03:02	16984-48-8	
Sulfate	77.6	mg/L	10.0	0.17	10		04/06/19 11:21	14808-79-8	

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ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds

Pace Project No.: 2616901

Sample: YGWC-27S		Lab ID: 2616901006		Collected: 04/01/19 15:40	Received: 04/02/19 17:10	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							
Arsenic	ND	mg/L	0.0050	0.00057	1	04/05/19 14:47	04/08/19 20:46	7440-38-2	
Barium	0.099	mg/L	0.010	0.00078	1	04/05/19 14:47	04/08/19 20:46	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	04/05/19 14:47	04/08/19 20:46	7440-41-7	
Boron	1.4	mg/L	0.040	0.0039	1	04/05/19 14:47	04/08/19 20:46	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000093	1	04/05/19 14:47	04/08/19 20:46	7440-43-9	
Calcium	38.0	mg/L	25.0	0.69	50	04/05/19 14:47	04/08/19 20:52	7440-70-2	
Chromium	ND	mg/L	0.010	0.0016	1	04/05/19 14:47	04/08/19 20:46	7440-47-3	
Cobalt	0.0023J	mg/L	0.010	0.00052	1	04/05/19 14:47	04/08/19 20:46	7440-48-4	
Lithium	ND	mg/L	0.050	0.00097	1	04/05/19 14:47	04/08/19 20:46	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	04/05/19 14:47	04/08/19 20:46	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	04/05/19 14:47	04/08/19 20:46	7782-49-2	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	0.000041J	mg/L	0.00050	0.000036	1	04/04/19 13:48	04/05/19 18:14	7439-97-6	B
2540C Total Dissolved Solids		Analytical Method: SM 2540C							
Total Dissolved Solids	221	mg/L	25.0	10.0	1		04/04/19 17:47		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Chloride	19.7	mg/L	0.25	0.024	1		04/06/19 03:24	16887-00-6	
Fluoride	0.088J	mg/L	0.30	0.029	1		04/06/19 03:24	16984-48-8	
Sulfate	18.3	mg/L	1.0	0.017	1		04/06/19 03:24	14808-79-8	

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ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds

Pace Project No.: 2616901

Sample: YGWC-271 Lab ID: 2616901007 Collected: 04/01/19 16:35 Received: 04/02/19 17:10 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									
Arsenic	ND	mg/L	0.0050	0.00057	1	04/05/19 14:47	04/08/19 20:58	7440-38-2	
Barium	0.066	mg/L	0.010	0.00078	1	04/05/19 14:47	04/08/19 20:58	7440-39-3	
Beryllium	0.00022J	mg/L	0.0030	0.000050	1	04/05/19 14:47	04/08/19 20:58	7440-41-7	
Boron	2.4	mg/L	2.0	0.20	50	04/05/19 14:47	04/08/19 21:03	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000093	1	04/05/19 14:47	04/08/19 20:58	7440-43-9	
Calcium	27.4	mg/L	25.0	0.69	50	04/05/19 14:47	04/08/19 21:03	7440-70-2	
Chromium	ND	mg/L	0.010	0.0016	1	04/05/19 14:47	04/08/19 20:58	7440-47-3	
Cobalt	0.025	mg/L	0.010	0.00052	1	04/05/19 14:47	04/08/19 20:58	7440-48-4	
Lithium	0.0082J	mg/L	0.050	0.00097	1	04/05/19 14:47	04/08/19 20:58	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	04/05/19 14:47	04/08/19 20:58	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	04/05/19 14:47	04/08/19 20:58	7782-49-2	
7470 Mercury Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Mercury	0.000045J	mg/L	0.00050	0.000036	1	04/04/19 13:48	04/05/19 18:17	7439-97-6	B
2540C Total Dissolved Solids Analytical Method: SM 2540C									
Total Dissolved Solids	198	mg/L	25.0	10.0	1		04/04/19 17:47		
300.0 IC Anions 28 Days Analytical Method: EPA 300.0									
Chloride	14.2	mg/L	0.25	0.024	1		04/06/19 05:13	16887-00-6	
Fluoride	0.034J	mg/L	0.30	0.029	1		04/06/19 05:13	16984-48-8	
Sulfate	4.1	mg/L	1.0	0.017	1		04/06/19 05:13	14808-79-8	

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ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds

Pace Project No.: 2616901

Sample: YGWC-28S		Lab ID: 2616901008		Collected: 04/02/19 13:00	Received: 04/02/19 17:10	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								
Arsenic	ND	mg/L	0.0050	0.00057	1	04/05/19 14:47	04/08/19 21:09	7440-38-2		
Barium	0.20	mg/L	0.010	0.00078	1	04/05/19 14:47	04/08/19 21:09	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000050	1	04/05/19 14:47	04/08/19 21:09	7440-41-7		
Boron	2.9	mg/L	2.0	0.20	50	04/05/19 14:47	04/08/19 21:15	7440-42-8		
Cadmium	ND	mg/L	0.0010	0.000093	1	04/05/19 14:47	04/08/19 21:09	7440-43-9		
Calcium	25.7	mg/L	25.0	0.69	50	04/05/19 14:47	04/08/19 21:15	7440-70-2		
Chromium	ND	mg/L	0.010	0.0016	1	04/05/19 14:47	04/08/19 21:09	7440-47-3		
Cobalt	0.0011J	mg/L	0.010	0.00052	1	04/05/19 14:47	04/08/19 21:09	7440-48-4		
Lithium	ND	mg/L	0.050	0.00097	1	04/05/19 14:47	04/08/19 21:09	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.0019	1	04/05/19 14:47	04/08/19 21:09	7439-98-7		
Selenium	ND	mg/L	0.010	0.0014	1	04/05/19 14:47	04/08/19 21:09	7782-49-2		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.000036	1	04/04/19 13:48	04/05/19 18:19	7439-97-6		
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	ND	mg/L	25.0	10.0	1		04/08/19 15:28			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Chloride	19.5	mg/L	0.25	0.024	1		04/06/19 05:34	16887-00-6		
Fluoride	0.14J	mg/L	0.30	0.029	1		04/06/19 05:34	16984-48-8		
Sulfate	2.4	mg/L	1.0	0.017	1		04/06/19 05:34	14808-79-8		

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ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds
Pace Project No.: 2616901

Sample: YGWC-28I		Lab ID: 2616901009		Collected: 04/01/19 16:15		Received: 04/02/19 17:10		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								
Arsenic	ND	mg/L	0.0050	0.00057	1	04/05/19 14:47	04/08/19 21:21	7440-38-2		
Barium	0.088	mg/L	0.010	0.00078	1	04/05/19 14:47	04/08/19 21:21	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000050	1	04/05/19 14:47	04/08/19 21:21	7440-41-7		
Boron	2.7	mg/L	2.0	0.20	50	04/05/19 14:47	04/08/19 21:26	7440-42-8		
Cadmium	0.00043J	mg/L	0.0010	0.000093	1	04/05/19 14:47	04/08/19 21:21	7440-43-9		
Calcium	33.8	mg/L	25.0	0.69	50	04/05/19 14:47	04/08/19 21:26	7440-70-2		
Chromium	ND	mg/L	0.010	0.0016	1	04/05/19 14:47	04/08/19 21:21	7440-47-3		
Cobalt	ND	mg/L	0.010	0.00052	1	04/05/19 14:47	04/08/19 21:21	7440-48-4		
Lithium	0.0065J	mg/L	0.050	0.00097	1	04/05/19 14:47	04/08/19 21:21	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.0019	1	04/05/19 14:47	04/08/19 21:21	7439-98-7		
Selenium	ND	mg/L	0.010	0.0014	1	04/05/19 14:47	04/08/19 21:21	7782-49-2		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.000036	1	04/04/19 13:48	04/05/19 18:22	7439-97-6		
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	238	mg/L	25.0	10.0	1		04/04/19 17:47			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Chloride	17.2	mg/L	0.25	0.024	1		04/06/19 06:17	16887-00-6		
Fluoride	0.078J	mg/L	0.30	0.029	1		04/06/19 06:17	16984-48-8		
Sulfate	8.2	mg/L	1.0	0.017	1		04/06/19 06:17	14808-79-8		

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ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds

Pace Project No.: 2616901

Sample: YGWC-291 Lab ID: 2616901010 Collected: 04/01/19 14:46 Received: 04/02/19 17:10 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									
Arsenic	ND	mg/L	0.0050	0.00057	1	04/05/19 14:47	04/08/19 21:44	7440-38-2	
Barium	0.063	mg/L	0.010	0.00078	1	04/05/19 14:47	04/08/19 21:44	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	04/05/19 14:47	04/08/19 21:44	7440-41-7	
Boron	0.85	mg/L	0.040	0.0039	1	04/05/19 14:47	04/08/19 21:44	7440-42-8	
Cadmium	0.00022J	mg/L	0.0010	0.000093	1	04/05/19 14:47	04/08/19 21:44	7440-43-9	
Calcium	11.9J	mg/L	25.0	0.69	50	04/05/19 14:47	04/08/19 21:49	7440-70-2	D3
Chromium	ND	mg/L	0.010	0.0016	1	04/05/19 14:47	04/08/19 21:44	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	04/05/19 14:47	04/08/19 21:44	7440-48-4	
Lithium	0.0052J	mg/L	0.050	0.00097	1	04/05/19 14:47	04/08/19 21:44	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	04/05/19 14:47	04/08/19 21:44	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	04/05/19 14:47	04/08/19 21:44	7782-49-2	
7470 Mercury Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Mercury	0.000039J	mg/L	0.00050	0.000036	1	04/04/19 13:48	04/05/19 18:24	7439-97-6	B
2540C Total Dissolved Solids Analytical Method: SM 2540C									
Total Dissolved Solids	147	mg/L	25.0	10.0	1		04/04/19 17:48		
300.0 IC Anions 28 Days Analytical Method: EPA 300.0									
Chloride	13.1	mg/L	0.25	0.024	1		04/06/19 06:38	16887-00-6	
Fluoride	0.059J	mg/L	0.30	0.029	1		04/06/19 06:38	16984-48-8	
Sulfate	30.4	mg/L	1.0	0.017	1		04/06/19 06:38	14808-79-8	

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ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds
Pace Project No.: 2616901

Sample: EB-1-4-1-19		Lab ID: 2616901011		Collected: 04/01/19 12:45		Received: 04/02/19 17:10		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							
Arsenic	ND	mg/L	0.0050	0.00057	1	04/05/19 14:47	04/08/19 21:55	7440-38-2	
Barium	ND	mg/L	0.010	0.00078	1	04/05/19 14:47	04/08/19 21:55	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	04/05/19 14:47	04/08/19 21:55	7440-41-7	
Boron	ND	mg/L	0.040	0.0039	1	04/05/19 14:47	04/08/19 21:55	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000093	1	04/05/19 14:47	04/08/19 21:55	7440-43-9	
Calcium	0.087J	mg/L	0.50	0.014	1	04/05/19 14:47	04/08/19 21:55	7440-70-2	
Chromium	ND	mg/L	0.010	0.0016	1	04/05/19 14:47	04/08/19 21:55	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	04/05/19 14:47	04/08/19 21:55	7440-48-4	
Lithium	ND	mg/L	0.050	0.00097	1	04/05/19 14:47	04/08/19 21:55	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	04/05/19 14:47	04/08/19 21:55	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	04/05/19 14:47	04/08/19 21:55	7782-49-2	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	0.000066J	mg/L	0.00050	0.000036	1	04/04/19 13:48	04/05/19 18:26	7439-97-6	B
2540C Total Dissolved Solids		Analytical Method: SM 2540C							
Total Dissolved Solids	11.0J	mg/L	25.0	10.0	1		04/04/19 17:48		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Chloride	0.090J	mg/L	0.25	0.024	1		04/06/19 06:59	16887-00-6	B
Fluoride	ND	mg/L	0.30	0.029	1		04/06/19 06:59	16984-48-8	
Sulfate	0.035J	mg/L	1.0	0.017	1		04/06/19 06:59	14808-79-8	B

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ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds

Pace Project No.: 2616901

Sample: EB-2-4-2-19 Lab ID: 2616901012 Collected: 04/02/19 10:25 Received: 04/02/19 17:10 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									
Arsenic	ND	mg/L	0.25	0.028	50	04/05/19 14:47	04/08/19 22:01	7440-38-2	
Barium	ND	mg/L	0.50	0.039	50	04/05/19 14:47	04/08/19 22:01	7440-39-3	
Beryllium	ND	mg/L	0.15	0.0025	50	04/05/19 14:47	04/08/19 22:01	7440-41-7	
Boron	ND	mg/L	2.0	0.20	50	04/05/19 14:47	04/08/19 22:01	7440-42-8	
Cadmium	ND	mg/L	0.050	0.0046	50	04/05/19 14:47	04/08/19 22:01	7440-43-9	
Calcium	ND	mg/L	25.0	0.69	50	04/05/19 14:47	04/08/19 22:01	7440-70-2	
Chromium	ND	mg/L	0.50	0.078	50	04/05/19 14:47	04/08/19 22:01	7440-47-3	
Cobalt	ND	mg/L	0.50	0.026	50	04/05/19 14:47	04/08/19 22:01	7440-48-4	
Lithium	ND	mg/L	2.5	0.049	50	04/05/19 14:47	04/08/19 22:01	7439-93-2	
Molybdenum	ND	mg/L	0.50	0.097	50	04/05/19 14:47	04/08/19 22:01	7439-98-7	
Selenium	ND	mg/L	0.50	0.068	50	04/05/19 14:47	04/08/19 22:01	7782-49-2	
7470 Mercury Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Mercury	0.000069J	mg/L	0.00050	0.000036	1	04/04/19 13:48	04/05/19 18:29	7439-97-6	B
2540C Total Dissolved Solids Analytical Method: SM 2540C									
Total Dissolved Solids	590	mg/L	25.0	10.0	1		04/08/19 15:29		
300.0 IC Anions 28 Days Analytical Method: EPA 300.0									
Chloride	0.11J	mg/L	0.25	0.024	1		04/06/19 07:21	16887-00-6	B
Fluoride	ND	mg/L	0.30	0.029	1		04/06/19 07:21	16984-48-8	
Sulfate	0.026J	mg/L	1.0	0.017	1		04/06/19 07:21	14808-79-8	B

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ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds

Pace Project No.: 2616901

Sample: Dup-2		Lab ID: 2616901013		Collected: 04/02/19 00:00		Received: 04/02/19 17:10		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							
Arsenic	ND	mg/L	0.0050	0.00057	1	04/05/19 14:47	04/08/19 22:06	7440-38-2	
Barium	0.065	mg/L	0.010	0.00078	1	04/05/19 14:47	04/08/19 22:06	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	04/05/19 14:47	04/08/19 22:06	7440-41-7	
Boron	0.89	mg/L	0.040	0.0039	1	04/05/19 14:47	04/08/19 22:06	7440-42-8	
Cadmium	ND	mg/L	0.0010	0.000093	1	04/05/19 14:47	04/08/19 22:06	7440-43-9	
Calcium	15.8J	mg/L	25.0	0.69	50	04/05/19 14:47	04/08/19 22:12	7440-70-2	D3
Chromium	ND	mg/L	0.010	0.0016	1	04/05/19 14:47	04/08/19 22:06	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	04/05/19 14:47	04/08/19 22:06	7440-48-4	
Lithium	0.0062J	mg/L	0.050	0.00097	1	04/05/19 14:47	04/08/19 22:06	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	04/05/19 14:47	04/08/19 22:06	7439-98-7	
Selenium	0.0021J	mg/L	0.010	0.0014	1	04/05/19 14:47	04/08/19 22:06	7782-49-2	
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	0.000086J	mg/L	0.00050	0.000036	1	04/04/19 13:48	04/05/19 18:31	7439-97-6	B
2540C Total Dissolved Solids		Analytical Method: SM 2540C							
Total Dissolved Solids	215	mg/L	25.0	10.0	1		04/08/19 15:29		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0							
Chloride	17.9	mg/L	0.25	0.024	1		04/06/19 07:43	16887-00-6	
Fluoride	0.30J	mg/L	0.30	0.029	1		04/06/19 07:43	16984-48-8	
Sulfate	80.5	mg/L	10.0	0.17	10		04/08/19 20:23	14808-79-8	

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ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds

Pace Project No.: 2616901

Sample: FB-1-4-1-19		Lab ID: 2616901014		Collected: 04/01/19 14:35	Received: 04/02/19 17:10	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								
Arsenic	ND	mg/L	0.0050	0.00057	1	04/05/19 14:47	04/08/19 22:18	7440-38-2		
Barium	ND	mg/L	0.010	0.00078	1	04/05/19 14:47	04/08/19 22:18	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000050	1	04/05/19 14:47	04/08/19 22:18	7440-41-7		
Boron	ND	mg/L	0.040	0.0039	1	04/05/19 14:47	04/08/19 22:18	7440-42-8		
Cadmium	ND	mg/L	0.0010	0.000093	1	04/05/19 14:47	04/08/19 22:18	7440-43-9		
Calcium	ND	mg/L	0.50	0.014	1	04/05/19 14:47	04/08/19 22:18	7440-70-2		
Chromium	ND	mg/L	0.010	0.0016	1	04/05/19 14:47	04/08/19 22:18	7440-47-3		
Cobalt	ND	mg/L	0.010	0.00052	1	04/05/19 14:47	04/08/19 22:18	7440-48-4		
Lithium	ND	mg/L	0.050	0.00097	1	04/05/19 14:47	04/08/19 22:18	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.0019	1	04/05/19 14:47	04/08/19 22:18	7439-98-7		
Selenium	ND	mg/L	0.010	0.0014	1	04/05/19 14:47	04/08/19 22:18	7782-49-2		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	0.000050J	mg/L	0.00050	0.000036	1	04/04/19 13:48	04/05/19 18:38	7439-97-6	B	
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	20.0J	mg/L	25.0	10.0	1		04/04/19 17:49			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Chloride	0.094J	mg/L	0.25	0.024	1		04/06/19 08:04	16887-00-6	B	
Fluoride	ND	mg/L	0.30	0.029	1		04/06/19 08:04	16984-48-8		
Sulfate	0.039J	mg/L	1.0	0.017	1		04/06/19 08:04	14808-79-8	B	

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ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds

Pace Project No.: 2616901

Sample: FB-2-4-2-19		Lab ID: 2616901015		Collected: 04/02/19 10:40	Received: 04/02/19 17:10	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								
Arsenic	ND	mg/L	0.0050	0.00057	1	04/05/19 14:47	04/08/19 22:24	7440-38-2		
Barium	ND	mg/L	0.010	0.00078	1	04/05/19 14:47	04/08/19 22:24	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000050	1	04/05/19 14:47	04/08/19 22:24	7440-41-7		
Boron	ND	mg/L	0.040	0.0039	1	04/05/19 14:47	04/08/19 22:24	7440-42-8		
Cadmium	ND	mg/L	0.0010	0.000093	1	04/05/19 14:47	04/08/19 22:24	7440-43-9		
Calcium	ND	mg/L	0.50	0.014	1	04/05/19 14:47	04/08/19 22:24	7440-70-2		
Chromium	ND	mg/L	0.010	0.0016	1	04/05/19 14:47	04/08/19 22:24	7440-47-3		
Cobalt	ND	mg/L	0.010	0.00052	1	04/05/19 14:47	04/08/19 22:24	7440-48-4		
Lithium	ND	mg/L	0.050	0.00097	1	04/05/19 14:47	04/08/19 22:24	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.0019	1	04/05/19 14:47	04/08/19 22:24	7439-98-7		
Selenium	ND	mg/L	0.010	0.0014	1	04/05/19 14:47	04/08/19 22:24	7782-49-2		
7470 Mercury		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	0.000064J	mg/L	0.00050	0.000036	1	04/04/19 13:48	04/05/19 18:41	7439-97-6	B	
2540C Total Dissolved Solids		Analytical Method: SM 2540C								
Total Dissolved Solids	ND	mg/L	25.0	10.0	1		04/08/19 15:30			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0								
Chloride	0.26	mg/L	0.25	0.024	1		04/06/19 08:26	16887-00-6	B	
Fluoride	ND	mg/L	0.30	0.029	1		04/06/19 08:26	16984-48-8		
Sulfate	0.026J	mg/L	1.0	0.017	1		04/06/19 08:26	14808-79-8	B	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Yates Ash Ponds
Pace Project No.: 2616901

QC Batch: 25770 Analysis Method: EPA 7470A
QC Batch Method: EPA 7470A Analysis Description: 7470 Mercury
Associated Lab Samples: 2616901001, 2616901002, 2616901003, 2616901004, 2616901005, 2616901006, 2616901007, 2616901008, 2616901009, 2616901010, 2616901011, 2616901012, 2616901013, 2616901014, 2616901015

METHOD BLANK: 116256 Matrix: Water
Associated Lab Samples: 2616901001, 2616901002, 2616901003, 2616901004, 2616901005, 2616901006, 2616901007, 2616901008, 2616901009, 2616901010, 2616901011, 2616901012, 2616901013, 2616901014, 2616901015

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	0.00013J	0.00050	0.000036	04/05/19 17:41	

LABORATORY CONTROL SAMPLE: 116257

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.0025	0.0024	97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 116258 116259

Parameter	Units	2616881001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	mg/L	0.000089J	0.0025	0.0025	0.0021	0.0019	82	71	75-125	13	20	M1

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Yates Ash Ponds
Pace Project No.: 2616901

QC Batch: 25905 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020B MET
Associated Lab Samples: 2616901001, 2616901002, 2616901003, 2616901004, 2616901005, 2616901006, 2616901007, 2616901008, 2616901009, 2616901010, 2616901011, 2616901012, 2616901013, 2616901014, 2616901015

METHOD BLANK: 116813 Matrix: Water
Associated Lab Samples: 2616901001, 2616901002, 2616901003, 2616901004, 2616901005, 2616901006, 2616901007, 2616901008, 2616901009, 2616901010, 2616901011, 2616901012, 2616901013, 2616901014, 2616901015

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic	mg/L	ND	0.0050	0.00057	04/08/19 18:23	
Barium	mg/L	ND	0.010	0.00078	04/08/19 18:23	
Beryllium	mg/L	ND	0.0030	0.000050	04/08/19 18:23	
Boron	mg/L	ND	0.040	0.0039	04/08/19 18:23	
Cadmium	mg/L	ND	0.0010	0.000093	04/08/19 18:23	
Calcium	mg/L	ND	0.50	0.014	04/08/19 18:23	
Chromium	mg/L	ND	0.010	0.0016	04/08/19 18:23	
Cobalt	mg/L	ND	0.010	0.00052	04/08/19 18:23	
Lithium	mg/L	ND	0.050	0.00097	04/08/19 18:23	
Molybdenum	mg/L	ND	0.010	0.0019	04/08/19 18:23	
Selenium	mg/L	ND	0.010	0.0014	04/08/19 18:23	

LABORATORY CONTROL SAMPLE: 116814

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/L	0.1	0.10	103	80-120	
Barium	mg/L	0.1	0.10	103	80-120	
Beryllium	mg/L	0.1	0.10	101	80-120	
Boron	mg/L	1	1.0	105	80-120	
Cadmium	mg/L	0.1	0.11	109	80-120	
Calcium	mg/L	1	1.0	104	80-120	
Chromium	mg/L	0.1	0.11	108	80-120	
Cobalt	mg/L	0.1	0.11	107	80-120	
Lithium	mg/L	0.1	0.10	102	80-120	
Molybdenum	mg/L	0.1	0.11	105	80-120	
Selenium	mg/L	0.1	0.11	106	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 116815 116816

Parameter	Units	2616901004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	mg/L	ND	0.1	0.1	0.10	0.10	103	102	75-125	1	20	
Barium	mg/L	0.027	0.1	0.1	0.13	0.13	105	100	75-125	4	20	
Beryllium	mg/L	0.00015J	0.1	0.1	0.10	0.10	100	100	75-125	0	20	
Boron	mg/L	0.63	1	1	1.6	1.6	102	101	75-125	0	20	
Cadmium	mg/L	ND	0.1	0.1	0.11	0.10	105	105	75-125	0	20	
Calcium	mg/L	11.9J	1	1	13.1J	17.2J	129	532	75-125	27	20	M6, R1

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QUALITY CONTROL DATA

Project: Plant Yates Ash Ponds

Pace Project No.: 2616901

Parameter	Units	116815		116816		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
		2616901004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result							
Chromium	mg/L	0.0030J	0.1	0.1	0.11	0.11	106	106	75-125	0	20	
Cobalt	mg/L	0.0022J	0.1	0.1	0.11	0.10	103	101	75-125	2	20	
Lithium	mg/L	ND	0.1	0.1	0.10	0.10	102	100	75-125	2	20	
Molybdenum	mg/L	ND	0.1	0.1	0.11	0.10	107	103	75-125	4	20	
Selenium	mg/L	ND	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 Ponds
Pace Project No.: 2616901

QC Batch: 25772 Analysis Method: SM 2540C
QC Batch Method: SM 2540C Analysis Description: 2540C Total Dissolved Solids
Associated Lab Samples: 2616901001, 2616901002, 2616901003, 2616901006, 2616901007, 2616901009, 2616901010, 2616901011, 2616901014

LABORATORY CONTROL SAMPLE: 116265

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	403	101	84-108	

SAMPLE DUPLICATE: 116266

Parameter	Units	2616783001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	87.0	115	28	10	D6

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QUALITY CONTROL DATA

Project: Plant Yates Ash Ponds

Pace Project No.: 2616901

QC Batch:	25999	Analysis Method:	SM 2540C
QC Batch Method:	SM 2540C	Analysis Description:	2540C Total Dissolved Solids

Associated Lab Samples: 2616901004, 2616901005, 2616901008, 2616901012, 2616901013, 2616901015

LABORATORY CONTROL SAMPLE: 117377

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	411	103	84-108	

SAMPLE DUPLICATE: 117378

Parameter	Units	2617086001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	226	203	11	10	D6

SAMPLE DUPLICATE: 117379

Parameter	Units	2616901015 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	ND	13.0J		10	

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QUALITY CONTROL DATA

Project: Plant Yates Ash Ponds
Pace Project No.: 2616901

QC Batch: 25881 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 2616901001, 2616901002, 2616901003, 2616901004, 2616901005, 2616901006, 2616901007, 2616901008, 2616901009, 2616901010, 2616901011, 2616901012, 2616901013, 2616901014, 2616901015

METHOD BLANK: 116727 Matrix: Water
Associated Lab Samples: 2616901001, 2616901002, 2616901003, 2616901004, 2616901005, 2616901006, 2616901007, 2616901008, 2616901009, 2616901010, 2616901011, 2616901012, 2616901013, 2616901014, 2616901015

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	0.069J	0.25	0.024	04/05/19 23:23	
Fluoride	mg/L	ND	0.30	0.029	04/05/19 23:23	
Sulfate	mg/L	0.028J	1.0	0.017	04/05/19 23:23	

LABORATORY CONTROL SAMPLE: 116728

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	10	10.3	103	90-110	
Fluoride	mg/L	10	10.3	103	90-110	
Sulfate	mg/L	10	10.1	101	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 116729 116730

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		2616881001 Result	Spike Conc.	Spike Conc.	MS Result						
Chloride	mg/L	4.0	10	10	13.8	13.7	99	97	90-110	1	15
Fluoride	mg/L	0.042J	10	10	10.0	9.9	100	99	90-110	1	15
Sulfate	mg/L	1.7	10	10	11.4	11.4	97	96	90-110	1	15

MATRIX SPIKE SAMPLE: 116731

Parameter	Units	2616885001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	6.5	10	15.5	89	90-110	M1
Fluoride	mg/L	0.029J	10	9.5	95	90-110	
Sulfate	mg/L	50.4	10	54.7	43	90-110	E,M1

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REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: Plant Yates Ash Ponds

Pace Project No.: 2616901

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.
- 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.
- R1 RPD value was outside control limits.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Yates Ash Ponds

Pace Project No.: 2616901

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2616901001	YGWA-3I	EPA 3005A	25905	EPA 6020B	25922
2616901002	YGWA-3D	EPA 3005A	25905	EPA 6020B	25922
2616901003	YGWA-30I	EPA 3005A	25905	EPA 6020B	25922
2616901004	YGWC-26S	EPA 3005A	25905	EPA 6020B	25922
2616901005	YGWC-26I	EPA 3005A	25905	EPA 6020B	25922
2616901006	YGWC-27S	EPA 3005A	25905	EPA 6020B	25922
2616901007	YGWC-27I	EPA 3005A	25905	EPA 6020B	25922
2616901008	YGWC-28S	EPA 3005A	25905	EPA 6020B	25922
2616901009	YGWC-28I	EPA 3005A	25905	EPA 6020B	25922
2616901010	YGWC-29I	EPA 3005A	25905	EPA 6020B	25922
2616901011	EB-1-4-1-19	EPA 3005A	25905	EPA 6020B	25922
2616901012	EB-2-4-2-19	EPA 3005A	25905	EPA 6020B	25922
2616901013	Dup-2	EPA 3005A	25905	EPA 6020B	25922
2616901014	FB-1-4-1-19	EPA 3005A	25905	EPA 6020B	25922
2616901015	FB-2-4-2-19	EPA 3005A	25905	EPA 6020B	25922
2616901001	YGWA-3I	EPA 7470A	25770	EPA 7470A	25896
2616901002	YGWA-3D	EPA 7470A	25770	EPA 7470A	25896
2616901003	YGWA-30I	EPA 7470A	25770	EPA 7470A	25896
2616901004	YGWC-26S	EPA 7470A	25770	EPA 7470A	25896
2616901005	YGWC-26I	EPA 7470A	25770	EPA 7470A	25896
2616901006	YGWC-27S	EPA 7470A	25770	EPA 7470A	25896
2616901007	YGWC-27I	EPA 7470A	25770	EPA 7470A	25896
2616901008	YGWC-28S	EPA 7470A	25770	EPA 7470A	25896
2616901009	YGWC-28I	EPA 7470A	25770	EPA 7470A	25896
2616901010	YGWC-29I	EPA 7470A	25770	EPA 7470A	25896
2616901011	EB-1-4-1-19	EPA 7470A	25770	EPA 7470A	25896
2616901012	EB-2-4-2-19	EPA 7470A	25770	EPA 7470A	25896
2616901013	Dup-2	EPA 7470A	25770	EPA 7470A	25896
2616901014	FB-1-4-1-19	EPA 7470A	25770	EPA 7470A	25896
2616901015	FB-2-4-2-19	EPA 7470A	25770	EPA 7470A	25896
2616901001	YGWA-3I	SM 2540C	25772		
2616901002	YGWA-3D	SM 2540C	25772		
2616901003	YGWA-30I	SM 2540C	25772		
2616901004	YGWC-26S	SM 2540C	25999		
2616901005	YGWC-26I	SM 2540C	25999		
2616901006	YGWC-27S	SM 2540C	25772		
2616901007	YGWC-27I	SM 2540C	25772		
2616901008	YGWC-28S	SM 2540C	25999		
2616901009	YGWC-28I	SM 2540C	25772		
2616901010	YGWC-29I	SM 2540C	25772		
2616901011	EB-1-4-1-19	SM 2540C	25772		
2616901012	EB-2-4-2-19	SM 2540C	25999		
2616901013	Dup-2	SM 2540C	25999		
2616901014	FB-1-4-1-19	SM 2540C	25772		

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Yates Ash Ponds

Pace Project No.: 2616901

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2616901015	FB-2-4-2-19	SM 2540C	25999		
2616901001	YGWA-3I	EPA 300.0	25881		
2616901002	YGWA-3D	EPA 300.0	25881		
2616901003	YGWA-30I	EPA 300.0	25881		
2616901004	YGWC-26S	EPA 300.0	25881		
2616901005	YGWC-26I	EPA 300.0	25881		
2616901006	YGWC-27S	EPA 300.0	25881		
2616901007	YGWC-27I	EPA 300.0	25881		
2616901008	YGWC-28S	EPA 300.0	25881		
2616901009	YGWC-28I	EPA 300.0	25881		
2616901010	YGWC-29I	EPA 300.0	25881		
2616901011	EB-1-4-1-19	EPA 300.0	25881		
2616901012	EB-2-4-2-19	EPA 300.0	25881		
2616901013	Dup-2	EPA 300.0	25881		
2616901014	FB-1-4-1-19	EPA 300.0	25881		
2616901015	FB-2-4-2-19	EPA 300.0	25881		

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

CLIENT NAME:		ANALYSIS REQUESTED		CONTAINER TYPE		PRESERVATION		CONTAINER TYPE		PRESERVATION	
Georgia Power		P P P		P P P		3 7 3		P - PLASTIC		1 - HCl, 56°C	
CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER:		P P P		P P P		3 7 3		A - AMBER GLASS		2 - H ₂ SO ₄ , 56°C	
241 Ralph McGill Blvd SE B10185		P P P		P P P		3 7 3		G - CLEAR GLASS		3 - HNO ₃	
Atlanta, GA 30308		P P P		P P P		3 7 3		V - VOA VIAL		4 - NaOH, 56°C	
404-506-7239		P P P		P P P		3 7 3		S - STERILE		5 - NaOH/ZnAc, 56°C	
REPORT TO:		P P P		P P P		3 7 3		O - OTHER		6 - Na ₂ S ₂ O ₈ , 56°C	
Joju Abraham		P P P		P P P		3 7 3				7 - 56°C not frozen	
REQUESTED COMPLETION DATE:		P P P		P P P		3 7 3					
PO #:		P P P		P P P		3 7 3					
PROJECT NAME/STATE:		P P P		P P P		3 7 3					
Plant Yates - Ash Pond 2		P P P		P P P		3 7 3					
PROJECT #:		P P P		P P P		3 7 3					
		P P P		P P P		3 7 3					
Collection DATE	Collection TIME	MATRIX CODE*	C O R M A B	SAMPLE IDENTIFICATION	Metals App. III (EPA 6020/7470)	Boron, Calcium	CI, 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)		
4-1-19	1535	6W	✓	Y6WA-3I	✓	✓	✓	✓	✓		
4-1-19	1216	6W	✓	Y6WA-3D	✓	✓	✓	✓	✓		
4-1-19	1305	6W	✓	Y6WA-3OI	✓	✓	✓	✓	✓		
4-2-19	1203	6W	✓	Y6WE-26S	✓	✓	✓	✓	✓		
4-2-19	1353	6W	✓	Y6WC-26I	✓	✓	✓	✓	✓		
4-1-19	1540	6W	✓	Y6WC-27S	✓	✓	✓	✓	✓		
4-1-19	1635	6W	✓	Y6WC-27I	✓	✓	✓	✓	✓		
4-2-19	1300	6W	✓	Y6WC-28S	✓	✓	✓	✓	✓		
4-1-19	1615	6W	✓	Y6WC-28I	✓	✓	✓	✓	✓		
4-1-19	1446	6W	✓	Y6WC-29I	✓	✓	✓	✓	✓		

LAB #
ENTERED INTO LIMS:
TRACKING #



RELINQUISHED BY: *[Signature]* DATE/TIME: 4-2-19 / 1710
RELINQUISHED BY: DATE/TIME:

SAMPLE SHIPPED VIA: UPS, FEDEX, USPS, COURIER, OTHER, FS
Custody Seal: []
Unit: [] Broken: [] Mat Pres: []
Temp: [] Min: [] Max: []

APP III, plus Detected APP IV
Detected APP IV: Arsenic, Barium, Beryllium, Cadmium, Chromium, Cobalt, Fluoride, Lithium, Mercury, Molybdenum, Selenium, I
Bolded Detections: Listed above or included with App III
Yates Ash Pond 2 - 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

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 2 PROJECT #:		CONTAINER TYPE: PRESERVATION # of P 3 P 7 P 3		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 PRESERVATION 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 - H ₂ O ₂ , 56°C 7 - 56°C not frozen	
DATE/TIME: 4-1-19 1245 DATE/TIME: 4-2-19 1025 DATE/TIME: 4-2-19 1435 DATE/TIME: 4-2-19 1040		DATE/TIME: 4-2-19/1710 DATE/TIME:		RELINQUISHED BY: [Signature] RELINQUISHED BY:		LAB #: Entered into LIMS:		FOR LAB USE ONLY	
RECEIVED BY: [Signature] RECEIVED BY:		RECEIVED BY: [Signature] RECEIVED BY:		RECEIVED BY: [Signature] RECEIVED BY:		RECEIVED BY: [Signature] RECEIVED BY:		RECEIVED BY: [Signature] RECEIVED BY:	

WO#: 2616901

PM: **BN** Due Date: **04/10/19**

CLIENT: **GAPover-CCR**

APP III, plus Detected APP IV
 Detected APP IV: Arsenic, Barium, Beryllium, Cadmium, Chromium, Cobalt, Fluoride, Lithium, Mercury, Molybdenum, Selenium, R;
 Bolded Detections: Listed above or included with App III
 Yates Ash Pond 2 - Blank COCs.xlsx



Sample Condition Upon Receipt

Client Name: GIA Power

Project # _____

WO#: **2616901**

PM: **BM**

Due Date: **04/10/19**

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 1.1 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: 4/2/19 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 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: _____ Date/Time: _____ Field Data Required? Y / N

Person Contacted: _____

Comments/ Resolution: _____

Project Manager Review: _____ Date: _____

April 25, 2019

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


RE: Project: Plant Yates Ash Pond 2
Pace Project No.: 2616902

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on April 02, 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 2
Pace Project No.: 2616902

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

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SAMPLE SUMMARY

Project: Plant Yates Ash Pond 2
Pace Project No.: 2616902

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2616902001	YGWA-3I	Water	04/01/19 15:35	04/02/19 17:10
2616902002	YGWA-3D	Water	04/01/19 12:16	04/02/19 17:10
2616902003	YGWA-30I	Water	04/01/19 13:05	04/02/19 17:10
2616902004	YGWC-26S	Water	04/02/19 12:03	04/02/19 17:10
2616902005	YGWC-26I	Water	04/02/19 13:53	04/02/19 17:10
2616902006	YGWC-27S	Water	04/01/19 15:40	04/02/19 17:10
2616902007	YGWC-27I	Water	04/01/19 16:35	04/02/19 17:10
2616902008	YGWC-28S	Water	04/02/19 13:00	04/02/19 17:10
2616902009	YGWC-28I	Water	04/01/19 16:15	04/02/19 17:10
2616902010	YGWC-29I	Water	04/01/19 14:46	04/02/19 17:10
2616902011	EB-1-4-1-19	Water	04/01/19 12:45	04/02/19 17:10
2616902012	EB-2-4-2-19	Water	04/02/19 10:25	04/02/19 17:10
2616902013	Dup-2	Water	04/02/19 00:00	04/02/19 17:10
2616902014	FB-1-4-1-19	Water	04/01/19 14:35	04/02/19 17:10
2616902015	FB-2-4-2-19	Water	04/02/19 10:40	04/02/19 17:10

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SAMPLE ANALYTE COUNT

Project: Plant Yates Ash Pond 2
Pace Project No.: 2616902

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2616902001	YGWA-3I	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2616902002	YGWA-3D	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2616902003	YGWA-30I	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2616902004	YGWC-26S	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2616902005	YGWC-26I	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2616902006	YGWC-27S	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2616902007	YGWC-27I	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2616902008	YGWC-28S	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2616902009	YGWC-28I	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2616902010	YGWC-29I	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2616902011	EB-1-4-1-19	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2616902012	EB-2-4-2-19	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2616902013	Dup-2	EPA 9315	LAL	1	PASI-PA

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SAMPLE ANALYTE COUNT

Project: Plant Yates Ash Pond 2

Pace Project No.: 2616902

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2616902014	FB-1-4-1-19	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
2616902015	FB-2-4-2-19	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

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Pond 2

Pace Project No.: 2616902

Sample: YGWA-3I **Lab ID: 2616902001** Collected: 04/01/19 15:35 Received: 04/02/19 17:10 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	1.43 ± 0.501 (0.452) C:90% T:NA	pCi/L	04/12/19 08:12	13982-63-3	
Radium-228	EPA 9320	0.847 ± 0.480 (0.869) C:77% T:90%	pCi/L	04/16/19 16:21	15262-20-1	
Total Radium	Total Radium Calculation	2.28 ± 0.981 (1.32)	pCi/L	04/17/19 13:14	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Pond 2

Pace Project No.: 2616902

Sample: YGWA-3D **Lab ID: 2616902002** Collected: 04/01/19 12:16 Received: 04/02/19 17:10 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	1.85 ± 0.569 (0.404) C:88% T:NA	pCi/L	04/12/19 08:12	13982-63-3	
Radium-228	EPA 9320	2.48 ± 0.737 (0.988) C:75% T:85%	pCi/L	04/16/19 13:05	15262-20-1	
Total Radium	Total Radium Calculation	4.33 ± 1.31 (1.39)	pCi/L	04/17/19 13:14	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Pond 2

Pace Project No.: 2616902

Sample: YGWA-30I **Lab ID: 2616902003** Collected: 04/01/19 13:05 Received: 04/02/19 17:10 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.509 ± 0.311 (0.438) C:82% T:NA	pCi/L	04/12/19 08:12	13982-63-3	
Radium-228	EPA 9320	0.508 ± 0.464 (0.953) C:76% T:77%	pCi/L	04/16/19 13:05	15262-20-1	
Total Radium	Total Radium Calculation	1.02 ± 0.775 (1.39)	pCi/L	04/17/19 13:14	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Pond 2

Pace Project No.: 2616902

Sample: YGWC-26S **Lab ID: 2616902004** Collected: 04/02/19 12:03 Received: 04/02/19 17:10 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.139 ± 0.257 (0.588) C:87% T:NA	pCi/L	04/12/19 08:04	13982-63-3	
Radium-228	EPA 9320	0.569 ± 0.504 (1.03) C:75% T:83%	pCi/L	04/16/19 16:26	15262-20-1	
Total Radium	Total Radium Calculation	0.708 ± 0.761 (1.62)	pCi/L	04/17/19 13:14	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Pond 2

Pace Project No.: 2616902

Sample: YGWC-261 **Lab ID: 2616902005** Collected: 04/02/19 13:53 Received: 04/02/19 17:10 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.479 ± 0.333 (0.577) C:93% T:NA	pCi/L	04/12/19 08:04	13982-63-3	
Radium-228	EPA 9320	0.361 ± 0.408 (0.855) C:74% T:76%	pCi/L	04/16/19 16:20	15262-20-1	
Total Radium	Total Radium Calculation	0.840 ± 0.741 (1.43)	pCi/L	04/17/19 13:14	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Pond 2

Pace Project No.: 2616902

Sample: YGWC-27S **Lab ID: 2616902006** Collected: 04/01/19 15:40 Received: 04/02/19 17:10 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.429 ± 0.280 (0.417) C:91% T:NA	pCi/L	04/12/19 08:12	13982-63-3	
Radium-228	EPA 9320	0.348 ± 0.365 (0.755) C:72% T:83%	pCi/L	04/16/19 16:21	15262-20-1	
Total Radium	Total Radium Calculation	0.777 ± 0.645 (1.17)	pCi/L	04/17/19 13:14	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Pond 2

Pace Project No.: 2616902

Sample: YGWC-271 **Lab ID: 2616902007** Collected: 04/01/19 16:35 Received: 04/02/19 17:10 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	4.04 ± 0.938 (0.391) C:89% T:NA	pCi/L	04/12/19 08:04	13982-63-3	
Radium-228	EPA 9320	0.964 ± 0.440 (0.724) C:74% T:83%	pCi/L	04/16/19 16:21	15262-20-1	
Total Radium	Total Radium Calculation	5.00 ± 1.38 (1.12)	pCi/L	04/17/19 13:14	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Pond 2

Pace Project No.: 2616902

Sample: YGWC-28S **Lab ID: 2616902008** Collected: 04/02/19 13:00 Received: 04/02/19 17:10 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.320 ± 0.260 (0.453) C:97% T:NA	pCi/L	04/12/19 08:04	13982-63-3	
Radium-228	EPA 9320	0.201 ± 0.453 (1.00) C:72% T:93%	pCi/L	04/16/19 16:26	15262-20-1	
Total Radium	Total Radium Calculation	0.521 ± 0.713 (1.45)	pCi/L	04/17/19 13:14	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Pond 2

Pace Project No.: 2616902

Sample: YGWC-28I **Lab ID: 2616902009** Collected: 04/01/19 16:15 Received: 04/02/19 17:10 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.162 ± 0.216 (0.451) C:83% T:NA	pCi/L	04/12/19 08:12	13982-63-3	
Radium-228	EPA 9320	-0.147 ± 0.326 (0.792) C:73% T:87%	pCi/L	04/16/19 16:21	15262-20-1	
Total Radium	Total Radium Calculation	0.162 ± 0.542 (1.24)	pCi/L	04/17/19 13:14	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Pond 2

Pace Project No.: 2616902

Sample: YGWC-291 **Lab ID: 2616902010** Collected: 04/01/19 14:46 Received: 04/02/19 17:10 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.274 ± 0.261 (0.501) C:94% T:NA	pCi/L	04/12/19 08:12	13982-63-3	
Radium-228	EPA 9320	0.310 ± 0.439 (0.946) C:74% T:88%	pCi/L	04/16/19 13:05	15262-20-1	
Total Radium	Total Radium Calculation	0.584 ± 0.700 (1.45)	pCi/L	04/17/19 13:14	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Pond 2

Pace Project No.: 2616902

Sample: EB-1-4-1-19 **Lab ID: 2616902011** Collected: 04/01/19 12:45 Received: 04/02/19 17:10 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.191 ± 0.244 (0.507) C:84% T:NA	pCi/L	04/12/19 08:12	13982-63-3	
Radium-228	EPA 9320	0.324 ± 0.404 (0.860) C:73% T:88%	pCi/L	04/16/19 13:05	15262-20-1	
Total Radium	Total Radium Calculation	0.515 ± 0.648 (1.37)	pCi/L	04/17/19 13:14	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Pond 2

Pace Project No.: 2616902

Sample: EB-2-4-2-19 **Lab ID: 2616902012** Collected: 04/02/19 10:25 Received: 04/02/19 17:10 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.368 ± 0.277 (0.455) C:93% T:NA	pCi/L	04/12/19 08:04	13982-63-3	
Radium-228	EPA 9320	1.59 ± 0.665 (1.11) C:69% T:79%	pCi/L	04/16/19 16:26	15262-20-1	
Total Radium	Total Radium Calculation	1.96 ± 0.942 (1.57)	pCi/L	04/17/19 13:14	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Pond 2

Pace Project No.: 2616902

Sample: Dup-2 **Lab ID: 2616902013** Collected: 04/02/19 00:00 Received: 04/02/19 17:10 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.457 ± 0.370 (0.702) C:86% T:NA	pCi/L	04/12/19 08:04	13982-63-3	
Radium-228	EPA 9320	0.718 ± 0.593 (1.21) C:74% T:77%	pCi/L	04/16/19 16:26	15262-20-1	
Total Radium	Total Radium Calculation	1.18 ± 0.963 (1.91)	pCi/L	04/17/19 13:14	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Pond 2

Pace Project No.: 2616902

Sample: FB-1-4-1-19 **Lab ID: 2616902014** Collected: 04/01/19 14:35 Received: 04/02/19 17:10 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.132 ± 0.181 (0.377) C:88% T:NA	pCi/L	04/12/19 08:12	13982-63-3	
Radium-228	EPA 9320	0.404 ± 0.457 (0.965) C:73% T:84%	pCi/L	04/16/19 13:05	15262-20-1	
Total Radium	Total Radium Calculation	0.536 ± 0.638 (1.34)	pCi/L	04/17/19 13:14	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Pond 2

Pace Project No.: 2616902

Sample: FB-2-4-2-19 **Lab ID: 2616902015** Collected: 04/02/19 10:40 Received: 04/02/19 17:10 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	0.362 ± 0.286 (0.490) C:84% T:NA	pCi/L	04/12/19 08:04	13982-63-3	
Radium-228	EPA 9320	0.517 ± 0.448 (0.913) C:73% T:90%	pCi/L	04/16/19 16:26	15262-20-1	
Total Radium	Total Radium Calculation	0.879 ± 0.734 (1.40)	pCi/L	04/17/19 13:14	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Yates Ash Pond 2

Pace Project No.: 2616902

QC Batch:	337341	Analysis Method:	EPA 9320
QC Batch Method:	EPA 9320	Analysis Description:	9320 Radium 228
Associated Lab Samples:	2616902001, 2616902002, 2616902003, 2616902004, 2616902005, 2616902006, 2616902007, 2616902008, 2616902009, 2616902010, 2616902011, 2616902012, 2616902013, 2616902014, 2616902015		

METHOD BLANK:	1641952	Matrix:	Water
Associated Lab Samples:	2616902001, 2616902002, 2616902003, 2616902004, 2616902005, 2616902006, 2616902007, 2616902008, 2616902009, 2616902010, 2616902011, 2616902012, 2616902013, 2616902014, 2616902015		

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.438 ± 0.343 (0.679) C:77% T:88%	pCi/L	04/16/19 13:06	

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

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Yates Ash Pond 2

Pace Project No.: 2616902

QC Batch:	337391	Analysis Method:	EPA 9315
QC Batch Method:	EPA 9315	Analysis Description:	9315 Total Radium
Associated Lab Samples:	2616902001, 2616902002, 2616902003, 2616902004, 2616902005, 2616902006, 2616902007, 2616902008, 2616902009, 2616902010, 2616902011, 2616902012, 2616902013, 2616902014, 2616902015		

METHOD BLANK:	1642068	Matrix:	Water
Associated Lab Samples:	2616902001, 2616902002, 2616902003, 2616902004, 2616902005, 2616902006, 2616902007, 2616902008, 2616902009, 2616902010, 2616902011, 2616902012, 2616902013, 2616902014, 2616902015		

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.148 ± 0.194 (0.401) C:93% T:NA	pCi/L	04/12/19 08:12	

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

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: Plant Yates Ash Pond 2
Pace Project No.: 2616902

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 2
Pace Project No.: 2616902

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2616902001	YGWA-3I	EPA 9315	337391		
2616902002	YGWA-3D	EPA 9315	337391		
2616902003	YGWA-30I	EPA 9315	337391		
2616902004	YGWC-26S	EPA 9315	337391		
2616902005	YGWC-26I	EPA 9315	337391		
2616902006	YGWC-27S	EPA 9315	337391		
2616902007	YGWC-27I	EPA 9315	337391		
2616902008	YGWC-28S	EPA 9315	337391		
2616902009	YGWC-28I	EPA 9315	337391		
2616902010	YGWC-29I	EPA 9315	337391		
2616902011	EB-1-4-1-19	EPA 9315	337391		
2616902012	EB-2-4-2-19	EPA 9315	337391		
2616902013	Dup-2	EPA 9315	337391		
2616902014	FB-1-4-1-19	EPA 9315	337391		
2616902015	FB-2-4-2-19	EPA 9315	337391		
2616902001	YGWA-3I	EPA 9320	337341		
2616902002	YGWA-3D	EPA 9320	337341		
2616902003	YGWA-30I	EPA 9320	337341		
2616902004	YGWC-26S	EPA 9320	337341		
2616902005	YGWC-26I	EPA 9320	337341		
2616902006	YGWC-27S	EPA 9320	337341		
2616902007	YGWC-27I	EPA 9320	337341		
2616902008	YGWC-28S	EPA 9320	337341		
2616902009	YGWC-28I	EPA 9320	337341		
2616902010	YGWC-29I	EPA 9320	337341		
2616902011	EB-1-4-1-19	EPA 9320	337341		
2616902012	EB-2-4-2-19	EPA 9320	337341		
2616902013	Dup-2	EPA 9320	337341		
2616902014	FB-1-4-1-19	EPA 9320	337341		
2616902015	FB-2-4-2-19	EPA 9320	337341		
2616902001	YGWA-3I	Total Radium Calculation	338681		
2616902002	YGWA-3D	Total Radium Calculation	338681		
2616902003	YGWA-30I	Total Radium Calculation	338681		
2616902004	YGWC-26S	Total Radium Calculation	338681		
2616902005	YGWC-26I	Total Radium Calculation	338681		
2616902006	YGWC-27S	Total Radium Calculation	338681		
2616902007	YGWC-27I	Total Radium Calculation	338681		
2616902008	YGWC-28S	Total Radium Calculation	338681		
2616902009	YGWC-28I	Total Radium Calculation	338681		
2616902010	YGWC-29I	Total Radium Calculation	338681		
2616902011	EB-1-4-1-19	Total Radium Calculation	338681		
2616902012	EB-2-4-2-19	Total Radium Calculation	338681		
2616902013	Dup-2	Total Radium Calculation	338681		
2616902014	FB-1-4-1-19	Total Radium Calculation	338681		
2616902015	FB-2-4-2-19	Total Radium Calculation	338681		

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

PAGE: 2 OF 3

CHAIN OF CUSTODY RECORD

CLIENT NAME: Georgia Power		CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER: 241 Ralph McGill Blvd SE B10185 Atlanta, GA 30308		REPORT TO: Joju Abraham		PROJECT NAME/STATE: Plant Yates - Ash Pond 2		PROJECT #:	
CONTAINER TYPE: PRESERVATION: # of		ANALYSIS REQUESTED		CONTAINER TYPE: PRESERVATION: # of		CONTAINER TYPE: PRESERVATION: # of		CONTAINER TYPE: PRESERVATION: # of	
P 3		P 7		P 3		P 3		P 3	
D		D		D		D		D	
I		I		I		I		I	
N		N		N		N		N	
U		U		U		U		U	
M		M		M		M		M	
B		B		B		B		B	
E		E		E		E		E	
R		R		R		R		R	
A		A		A		A		A	
B		B		B		B		B	
P		P		P		P		P	
3		7		3		3		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-646 9315/9320)		Detected App IV (See List below) Det. App. IV Radium 226 & 228 (SW-646 9315/9320)		Detected App IV (See List below) Det. App. IV Radium 226 & 228 (SW-646 9315/9320)	
CONTAINERS		CONTAINERS		CONTAINERS		CONTAINERS		CONTAINERS	
Collection DATE	Collection TIME	MATRIX CODE*	COMPA	G	SAMPLE IDENTIFICATION	DATE/TIME	DATE/TIME	DATE/TIME	DATE/TIME
4-1-19	1535	6W	✓	✓	Y6WA-3I	4-2-19	1710	4-2-19	1710
4-1-19	1216	6W	✓	✓	Y6WA-3D	4-2-19	1710	4-2-19	1710
4-1-19	1305	6W	✓	✓	Y6WA-3OI	4-2-19	1710	4-2-19	1710
4-2-19	1203	6W	✓	✓	Y6WE-26S	4-2-19	1710	4-2-19	1710
4-2-19	1353	6W	✓	✓	Y6WC-26I	4-2-19	1710	4-2-19	1710
4-1-19	1540	6W	✓	✓	Y6WC-27S	4-2-19	1710	4-2-19	1710
4-1-19	1635	6W	✓	✓	Y6WC-27I	4-2-19	1710	4-2-19	1710
4-2-19	1300	6W	✓	✓	Y6WC-28S	4-2-19	1710	4-2-19	1710
4-1-19	1615	6W	✓	✓	Y6WC-28I	4-2-19	1710	4-2-19	1710
4-1-19	1446	6W	✓	✓	Y6WC-29I	4-2-19	1710	4-2-19	1710
SAMPLED BY AND TITLE: C. Barber, Hi. Acid		RECEIVED BY: C. Barber		DATE/TIME: See above		DATE/TIME: 4-2-19 / 1710		DATE/TIME: 4-2-19 / 1710	
RECEIVED BY LAB: C. Barber		RECEIVED BY: C. Barber		DATE/TIME: See above		DATE/TIME: 4-2-19 / 1710		DATE/TIME: 4-2-19 / 1710	
RECEIVED BY LAB: C. Barber		RECEIVED BY: C. Barber		DATE/TIME: See above		DATE/TIME: 4-2-19 / 1710		DATE/TIME: 4-2-19 / 1710	

W0#: 2616902



2616902

APP III, plus Detected APP IV

Detected APP IV: Arsenic, Barium, Beryllium, Cadmium, Chromium, Cobalt, Fluoride, Lithium, Mercury, Molybdenum, Selenium, Radium, Strontium, Vanadium, Zinc
Bolted Detections: Listed above or included with App III

Yates Ash Pond 2 - Blank COCs.xlsx



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

CHAIN OF CUSTODY RECORD

CLIENT NAME: Georgia Power CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER: 241 Ralph McGill Blvd SE B10185 Atlanta, GA 30308 REPORT TO: Joju Abraham REQUESTED COMPLETION DATE: PROJECT NAME/STATE: Plant Yates - Ash Pond 2 PROJECT #:		ANALYSIS REQUESTED CONTAINER TYPE: P P P P PRESERVATION: 3 7 # of C O N T A I N E R S		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 ₈ , 56°C 7 - 56°C not frozen	
REPORTED BY AND TITLE: C. Parker, H. Auld (AIC) RECEIVED BY:		DATE/TIME: 5:30 a.m. 4/19/19 DATE/TIME:		RELINQUISHED BY: <i>[Signature]</i> DATE/TIME: 4:2-19/1710	
RECEIVED BY LAB: <i>[Signature]</i> DATE/TIME: 4/19/19 1710 TEMPERATURE: 11 MADE:		SAMPLE SHIPPED VIA: UPS FED-EX: <input type="checkbox"/> USPS: <input checked="" type="checkbox"/> COURIER: <i>[Signature]</i> OTHER: FS COOLER ID:		LAB #: ENTERED INTO LIMS: TRACKING #:	
WARRANTY: No Yes NO. NA. NA. NA.		WARRANTY: No Yes NO. NA. NA. NA.		WARRANTY: No Yes NO. NA. NA. NA.	

WO#: 2616902

PM: BM Due Date: 05/01/19
CLIENT: GAPower-CCR

APP III, plus Detected APP IV

Detected APP IV: Arsenic, Barium, Beryllium, Cadmium, Chromium, Cobalt, Fluoride, Lithium, Mercury, Molybdenum, Selenium, Radium, Strontium, Vanadium, Zinc
 Bolder Detections: Listed above or included with App III

Yates Ash Pond 2 - Blank COCs.xlsx



Sample Condition Upon Receipt

Client Name: GIA Powere

Project # _____

WO#: **2616902**

PM: **BM**

Due Date: **05/01/19**

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 1.1 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: 4/2/19 MD

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

Client Notification/ Resolution: _____ Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____ Date: _____

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

Product Name: Low-Flow System

Date: 2019-03-28 11:43:15

Project Information:

Operator Name Hunter Auld
Company Name ACC
Project Name Plant Yates AP 2
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 108 ft

Pump placement from TOC 103 ft

Well Information:

Well ID YGWA-1D
Well diameter 2 in
Well Total Depth 128.60 ft
Screen Length 50 ft
Depth to Water 45.15 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 1.527495 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 1.8 in
Total Volume Pumped 5.7 L

Low-Flow Sampling Stabilization Summary

Stabilization Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Last 5	11:21:19	15.89	6.97	161.75	9.30	45.30	+/- 10%	+/- 0
Last 5	11:26:19	16.08	6.98	158.75	6.50	45.30	1.35	-109.84
Last 5	11:31:19	16.22	6.98	156.20	6.00	45.30	0.79	-105.16
Last 5	11:36:22	16.17	6.98	154.21	5.50	45.30	0.40	-103.49
Last 5	11:41:22	16.29	6.99	152.61	4.70	45.30	0.30	-99.45
Variance 0		0.14	-0.00	-2.55			0.27	-95.27
Variance 1		-0.05	-0.00	-1.99			-0.39	1.67
Variance 2		0.12	0.01	-1.60			-0.10	4.04

Notes

Sampled at 1143 on 3-28-19. Sunny, 50s.

Grab Samples

Product Name: Low-Flow System

Date: 2019-03-28 15:10:43

Project Information:

Operator Name Hunter Auld
Company Name ACC
Project Name Plant Yates AP 2
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 55 ft
Pump placement from TOC 50 ft

Well Information:

Well ID YGWA-1I
Well diameter 2 in
Well Total Depth 54.93 ft
Screen Length 10 ft
Depth to Water 32.78 ft

Pumping Information:

Final Pumping Rate 60 mL/min
Total System Volume 1.0159 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 23 in
Total Volume Pumped 5.6 L

Low-Flow Sampling Stabilization Summary

Stabilization Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
		+/- 0	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 0
Last 5 14:45:24	4208.02	17.63	6.23	59.10	3.70	34.50	3.15	70.14
Last 5 14:50:24	4508.01	17.28	6.22	57.38	3.20	34.60	3.45	80.28
Last 5 14:55:24	4808.02	17.19	6.19	57.24	3.00	34.70	3.72	80.26
Last 5 15:00:25	5109.02	17.07	6.15	57.77	2.90	34.70	3.96	85.28
Last 5 15:05:25	5409.01	17.17	6.15	58.32	2.70	34.70	4.07	83.83
Variance 0		-0.09	-0.03	-0.13			0.27	-0.02
Variance 1		-0.12	-0.03	0.53			0.24	5.03
Variance 2		0.10	-0.00	0.54			0.11	-1.45

Notes

Sampled at 1508 on 3-28-19. Sunny, 60s.

Grab Samples

Product Name: Low-Flow System

Date: 2019-03-29 11:28:51

Project Information:

Operator Name Hunter Auld
Company Name ACC
Project Name Plant Yates AP 2
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 66 ft
Pump placement from TOC 60 ft

Well Information:

Well ID YGWA-2I
Well diameter 2 in
Well Total Depth 65.74 ft
Screen Length 10 ft
Depth to Water 41.4 ft

Pumping Information:

Final Pumping Rate 50 mL/min
Total System Volume 1.12208 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 24 in
Total Volume Pumped 1.9 L

Low-Flow Sampling Stabilization Summary

Stabilization Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Last 5	11:05:01	900.02	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 0
Last 5	11:10:01	1200.02	7.13	212.60	3.90	42.60	3.82	-89.78
Last 5	11:15:01	1500.01	7.11	213.35	3.60	42.90	2.68	-94.07
Last 5	11:20:01	1799.99	7.05	214.47	3.30	43.20	1.55	-99.58
Last 5	11:25:02	2100.99	7.03	214.38	3.20	43.30	1.60	-96.55
Variance 0		0.38	7.06	213.56	3.10	43.40	1.59	-84.54
Variance 1		0.09	-0.06	1.11			-1.13	-5.50
Variance 2		0.22	-0.02	-0.09			0.05	3.03
			0.02	-0.82			-0.01	12.01

Notes

Sampled at 1127 on 3-29-19. Sunny, 60s.

Grab Samples

Product Name: Low-Flow System

Date: 2019-04-01 10:19:24

Project Information:

Operator Name Ryan Walker
Company Name ACC
Project Name Plant Yates AP2
Site Name Plant Yates
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 416162
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Mode/Type QED Bladder
Tubing Type poly
Tubing Diameter .25 in
Tubing Length 137 ft

Pump placement from TOC 112 ft

Well Information:

Well ID YGWA-3D
Well diameter 2 in
Well Total Depth 137.10 ft
Screen Length 50 ft
Depth to Water 28.45 ft

Pumping Information:

Final Pumping Rate 140 mL/min
Total System Volume 1.712424 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 2 in
Total Volume Pumped 4.15 L

Low-Flow Sampling Stabilization Summary

Stabilization Time	Elapsed	Temp C	pH	SpCond	Turb NTU	DTW ft	RDO mg/L	ORP mV
Last 5	09:56:56	16.63	7.77	212.41	1.28	28.60	+/- 0.3	+/- 10
Last 5	10:01:56	16.66	7.81	211.98	1.06	28.60	0.78	-44.29
Last 5	10:06:56	16.63	7.83	211.63	1.54	28.60	0.62	-45.30
Last 5	10:11:56	16.71	7.85	212.56	1.20	28.60	0.44	-52.82
Last 5	10:16:57	16.59	7.87	212.61	1.21	28.60	0.31	-56.92
Variance 0		-0.03	0.03	-0.36			0.24	-62.74
Variance 1		0.08	0.02	0.94			-0.18	-7.53
Variance 2		-0.12	0.02	0.04			-0.13	-4.10
							-0.07	-5.82

Notes

Sampled at 12:16 4-1-19. Sunny 60's.

Grab Samples

Product Name: Low-Flow System

Date: 2019-04-01 13:36:27

Project Information:

Operator Name Ryan Walker
Company Name ACC
Project Name Plant Yates AP2
Site Name Plant Yates
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 416162
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Mode/Type QED Bladder
Tubing Type poly
Tubing Diameter .25 in
Tubing Length 60 ft
Pump placement from TOC 55 ft

Well Information:

Well ID YGWA-3I
Well diameter 2 in
Well Total Depth 60 ft
Screen Length 10 ft
Depth to Water 52.35 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.9691639 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 5 in
Total Volume Pumped 15.25 L

Low-Flow Sampling Stabilization Summary

Stabilization Time	Elapsed	Temp C	pH	SpCond	Turb NTU	DTW ft	RDO mg/L	ORP mV
Last 5	13:14:50	15.73	7.74	187.83	1.14	52.80	+/- 0.3	+/- 10
Last 5	13:19:50	15.66	7.74	188.02	1.06	52.80	0.39	-88.72
Last 5	13:24:50	15.69	7.74	187.99	1.04	52.80	0.39	-89.04
Last 5	13:29:50	15.69	7.74	187.86	1.17	52.80	0.40	-88.07
Last 5	13:34:50	15.60	7.74	187.48	0.95	52.80	0.38	-89.17
Variance 0		0.03	-0.00	-0.03			0.01	-87.79
Variance 1		-0.00	-0.00	-0.13			-0.01	0.97
Variance 2		-0.09	-0.00	-0.38			-0.01	-1.10

Notes

Started purge at 13:00. iPod failure. Restart log. Sampled at 15:35 on 4-1-19.

Grab Samples

Product Name: Low-Flow System

Date: 2019-03-29 13:51:20

Project Information:

Operator Name Hunter Auld
Company Name ACC
Project Name Plant Yates AP 2
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 36 ft
Pump placement from TOC 30 ft

Well Information:

Well ID YGWA-14S
Well diameter 2 in
Well Total Depth 35.82 ft
Screen Length 10 ft
Depth to Water 13.59 ft

Pumping Information:

Final Pumping Rate 220 mL/min
Total System Volume 0.8324984 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 6.1 in
Total Volume Pumped 7.7 L

Low-Flow Sampling Stabilization Summary

Stabilization Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Last 5	13:24:47	18.08	5.70	54.21	1.00	14.10	6.91	198.34
Last 5	13:29:47	17.99	5.50	54.36	0.60	14.10	6.84	206.00
Last 5	13:39:48	17.82	5.37	54.60	0.75	14.10	6.77	214.80
Last 5	13:44:48	17.84	5.37	54.62	0.40	14.10	6.69	214.40
Last 5	13:49:48	17.72	5.34	54.58	0.50	14.10	6.73	214.80
Variance 0		-0.17	-0.13	0.24			-0.07	8.80
Variance 1		0.03	-0.01	0.02			-0.08	-0.40
Variance 2		-0.12	-0.03	-0.04			0.04	0.41

Notes

Sampled at 1350 on 3-29-19. Sunny, 70. Dup-1 here.

Grab Samples

Product Name: Low-Flow System

Date: 2019-04-01 13:04:10

Project Information:

Operator Name Hunter Auld
Company Name ACC
Project Name Plant Yates AP 2
Site Name Plant Yates
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 407447
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED Bladder Pump
Tubing Type poly
Tubing Diameter 0.25 in
Tubing Length 60 ft
Pump placement from TOC 54 ft

Well Information:

Well ID YGWA-30I
Well diameter 2 in
Well Total Depth 59.65 ft
Screen Length 10 ft
Depth to Water 35.73 ft

Pumping Information:

Final Pumping Rate 150 mL/min
Total System Volume 1.064164 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.5 in
Total Volume Pumped 6.8 L

Low-Flow Sampling Stabilization Summary

Stabilization Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
		+/- 0	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 0
Last 5	12:41:49	17.16	5.83	37.02	3.00	35.75	7.25	166.45
Last 5	12:46:49	17.17	5.65	36.89	1.90	35.75	7.21	168.58
Last 5	12:51:49	17.23	5.55	37.48	1.30	35.75	7.13	162.71
Last 5	12:56:49	17.28	5.63	36.98	1.00	35.75	7.11	164.15
Last 5	13:02:01	17.27	5.62	36.83	1.00	35.75	7.08	163.26
Variance 0		0.06	-0.10	0.59			-0.07	-5.87
Variance 1		0.04	0.08	-0.50			-0.03	1.44
Variance 2		-0.00	-0.01	-0.15			-0.02	-0.89

Notes

Sampled at 1305 on 4-1-19. Sunny, 50s.

Grab Samples

Product Name: Low-Flow System

Date: 2019-04-02 13:53:16

Project Information:

Operator Name Hunter Auld
Company Name ACC
Project Name Plant Yates AP 2
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 70 ft
Pump placement from TOC 64 ft

Well Information:

Well ID YGWC-26I
Well diameter 2 in
Well Total Depth 69.71 ft
Screen Length 10 ft
Depth to Water 22.18 ft

Pumping Information:

Final Pumping Rate 180 mL/min
Total System Volume 1.160691 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 3.2 in
Total Volume Pumped 13.1 L

Low-Flow Sampling Stabilization Summary

Stabilization Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Last 5	13:25:02	2700.00	5.87	307.01	7.20	22.45	0.23	+/- 0
Last 5	13:30:02	2999.99	5.87	306.09	7.00	22.45	0.23	96.93
Last 5	13:40:25	3622.99	5.87	305.54	6.30	22.45	0.23	97.63
Last 5	13:45:25	3922.98	5.86	305.82	5.50	22.45	0.23	96.73
Last 5	13:50:25	4222.98	5.87	305.51	4.80	22.45	0.23	96.59
Variance 0		0.18	-0.00	-0.55			0.00	96.12
Variance 1		-0.06	-0.01	0.28			-0.00	-0.90
Variance 2		-0.22	0.00	-0.31			0.00	-0.13

Notes

Sampled at 1353 on 4-2-19. Sunny, 60s. Dup 2 here.

Grab Samples

Product Name: Low-Flow System

Date: 2019-04-02 12:03:15

Project Information:

Operator Name Hunter Auld
Company Name ACC
Project Name Plant Yates AP 2
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 41 ft
Pump placement from TOC 35 ft

Well Information:

Well ID YGWC-26S
Well diameter 2 in
Well Total Depth 40.26 ft
Screen Length 10 ft
Depth to Water 18.78 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.880762 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 12.2 in
Total Volume Pumped 6.3 L

Low-Flow Sampling Stabilization Summary

Stabilization Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
		+/- 0	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 0
Last 5 11:40:19	2402.01	18.85	5.14	276.63	5.70	19.80	0.95	160.14
Last 5 11:45:19	2702.00	18.96	5.16	276.72	5.05	19.80	0.94	162.26
Last 5 11:50:19	3002.00	19.10	5.19	277.77	5.40	19.80	0.85	158.32
Last 5 11:55:20	3302.99	19.10	5.14	277.75	4.40	19.80	0.91	154.65
Last 5 12:00:20	3602.98	19.18	5.13	276.09	4.60	19.80	1.02	153.76
Variance 0		0.15	0.02	1.05			-0.09	-3.95
Variance 1		-0.00	-0.04	-0.03			0.06	-3.67
Variance 2		0.08	-0.01	-1.66			0.11	-0.88

Notes

Sampled at 1203 on 4-2-19. Sunny, 50s. FB-2-4-2-19 here at 1040.

Grab Samples

Product Name: Low-Flow System

Date: 2019-04-01 16:35:48

Project Information:

Operator Name Chris Parker
 Company Name Atlantic Coast Consulting
 Project Name Plant Yates AP 2
 Site Name Plant Yates
 Latitude 0° 0' 0"
 Longitude 0° 0' 0"
 Sonde SN 369807
 Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type Bladder Pump
 Tubing Type Poly
 Tubing Diameter .25 in
 Tubing Length 80 ft
 Pump placement from TOC 75 ft

Well Information:

Well ID YGWC-271
 Well diameter 2 in
 Well Total Depth 79.84 ft
 Screen Length 10 ft
 Depth to Water 26.6 ft

Pumping Information:

Final Pumping Rate 160 mL/min
 Total System Volume 1.257218 L
 Calculated Sample Rate 300 sec
 Stabilization Drawdown 7 in
 Total Volume Pumped 5.6 L

Low-Flow Sampling Stabilization Summary

Stabilization Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
		+/- 0	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5 16:06:48	300.06	21.01	7.38	291.65	9.96	27.20	1.10	-31.55
Last 5 16:11:48	600.01	19.23	7.00	319.32	6.45	27.20	1.04	-9.01
Last 5 16:16:48	900.00	19.10	6.52	323.05	3.54	27.20	0.71	-1.42
Last 5 16:21:48	1199.99	19.05	6.45	323.42	2.26	27.20	0.41	3.31
Last 5 16:26:48	1499.98	18.95	6.43	322.50	1.87	27.20	0.30	6.85
Variance 0		-0.13	-0.48	3.73			-0.33	7.59
Variance 1		-0.05	-0.07	0.36			-0.30	4.73
Variance 2		-0.10	-0.02	-0.92			-0.10	3.54

Notes

Sampled at 16:35. Sunny 60s

Grab Samples

Product Name: Low-Flow System

Date: 2019-04-01 15:38:58

Project Information:

Operator Name Chris Parker
 Company Name Atlantic Coast Consulting
 Project Name Plant Yates AP 2
 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 YGWC-27S
 Well diameter 2 in
 Well Total Depth 40.26 ft
 Screen Length 10 ft
 Depth to Water 26.15 ft

Pumping Information:

Final Pumping Rate 180 mL/min
 Total System Volume 0.8711092 L
 Calculated Sample Rate 300 sec
 Stabilization Drawdown 1 in
 Total Volume Pumped 8.1 L

Low-Flow Sampling Stabilization Summary

Stabilization Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
		+/- 0	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5 15:13:05	600.07	18.87	6.47	388.34	6.37	26.20	1.21	119.80
Last 5 15:18:05	900.01	18.92	6.46	389.98	5.89	26.20	0.69	123.00
Last 5 15:23:07	1201.99	19.12	6.44	391.13	5.31	26.20	0.47	131.79
Last 5 15:28:07	1501.98	18.86	6.42	395.22	5.02	26.20	0.38	134.22
Last 5 15:33:07	1801.98	19.02	6.40	396.01	4.67	26.20	0.27	134.38
Variance 0		0.20	-0.02	1.15			-0.22	8.80
Variance 1		-0.27	-0.02	4.09			-0.09	2.43
Variance 2		0.17	-0.02	0.80			-0.11	0.16

Notes

Sampled at 15:40. Sunny 60s

Grab Samples

Product Name: Low-Flow System

Date: 2019-04-01 16:10:52

Project Information:

Operator Name: Hunter Auld
Company Name: ACC
Project Name: Plant Yates AP 2
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: 70 ft
Pump placement from TOC: 64 ft

Well Information:

Well ID: YGWC-281
Well diameter: 2 in
Well Total Depth: 69.89 ft
Screen Length: 10 ft
Depth to Water: 22.34 ft

Pumping Information:

Final Pumping Rate: 130 mL/min
Total System Volume: 1.160691 L
Calculated Sample Rate: 300 sec
Stabilization Drawdown: 21.1 in
Total Volume Pumped: 5.2 L

Low-Flow Sampling Stabilization Summary

Stabilization Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
		+/- 0	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 0
Last 5	15:50:01	19.10	6.30	358.76	1.10	23.70	1.10	182.83
Last 5	15:55:01	18.75	6.29	361.67	1.00	23.80	0.77	187.50
Last 5	16:00:01	18.70	6.29	363.72	1.30	23.90	0.54	179.60
Last 5	16:05:01	18.64	6.29	365.20	1.20	24.00	0.48	174.91
Last 5	16:10:01	19.04	6.30	365.28	1.10	24.10	0.43	158.39
Variance 0		-0.04	-0.00	2.05			-0.23	-7.90
Variance 1		-0.07	-0.00	1.48			-0.06	-4.69
Variance 2		0.40	0.01	0.08			-0.05	-16.52

Notes

Sampled at 1615 on 4-1-19. Sunny 60s.

Grab Samples

Product Name: Low-Flow System

Date: 2019-04-02 12:59:43

Project Information:

Operator Name Chris Parker
Company Name Atlantic Coast Consulting
Project Name Plant Yates AP 2
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 44 ft
Pump placement from TOC 39 ft

Well Information:

Well ID YGWC-28S
Well diameter 2 in
Well Total Depth 44.85 ft
Screen Length 10 ft
Depth to Water 21.7 ft

Pumping Information:

Final Pumping Rate 210 mL/min
Total System Volume 0.9097202 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 4 in
Total Volume Pumped 36 L

Low-Flow Sampling Stabilization Summary

Stabilization Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
		+/- 0	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	12:36:53	8700.80	6.70	449.59	5.20	22.00	0.10	-63.12
Last 5	12:41:53	9000.80	6.70	448.94	5.43	22.00	0.10	-62.73
Last 5	12:46:53	9300.79	6.70	448.68	5.11	22.00	0.10	-62.44
Last 5	12:51:53	9600.78	6.70	448.27	4.98	22.00	0.10	-62.22
Last 5	12:56:53	9900.77	6.70	448.11	4.73	22.00	0.10	-62.13
Variance 0		-0.04	-0.00	-0.26			0.00	0.29
Variance 1		0.07	-0.00	-0.41			-0.00	0.22
Variance 2		0.02	0.00	-0.16			0.00	0.09

Notes

Sampled at 13:00. Sunny 50s. EB 2 here at 10:25. - Water level.

Grab Samples

Product Name: Low-Flow System

Date: 2019-04-01 14:47:07

Project Information:

Operator Name Hunter Auld
Company Name ACC
Project Name Plant Yates AP 2
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 35 ft

Well Information:

Well ID YGWC-29I
Well diameter 2 in
Well Total Depth 39.46 ft
Screen Length 10 ft
Depth to Water 25.63 ft

Pumping Information:

Final Pumping Rate 100 mL/min
Total System Volume 0.8711092 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 3.2 in
Total Volume Pumped 3.3 L

Low-Flow Sampling Stabilization Summary

Stabilization Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Last 5	14:23:01	18.82	6.11	247.61	0.90	26.75	1.60	+/- 0
Last 5	14:28:01	18.92	6.11	247.93	0.60	26.80	0.86	405.45
Last 5	14:34:16	18.84	6.03	248.13	0.40	26.85	0.52	379.66
Last 5	14:39:16	18.66	6.10	248.43	0.40	26.85	0.44	210.43
Last 5	14:44:17	18.72	6.03	248.88	0.40	26.90	0.41	148.51
Variance 0		-0.08	-0.08	0.21			-0.34	136.60
Variance 1		-0.18	0.07	0.30			-0.08	-169.23
Variance 2		0.07	-0.07	0.46			-0.03	-61.92

Notes

Sampled at 1446 on 4-1-19. Sunny, 60. FB-1-4-1-19 here at 1435.

Grab Samples

APPENDIX B

STATISTICAL ANALYSES

100% ND

Date: 5/3/2019 11:24 AM

Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Arsenic (mg/L)

YGWC-26I, YGWC-26S, YGWC-27S, YGWC-28I, YGWC-29I

Beryllium (mg/L)

YGWC-26I, YGWC-27S, YGWC-28I, YGWC-28S, YGWC-29I

Cadmium (mg/L)

YGWC-26I, YGWC-26S, YGWC-27I, YGWC-27S, YGWC-28S

Chromium (mg/L)

YGWC-27I

Cobalt (mg/L)

YGWC-26I

Lithium (mg/L)

YGWC-26S, YGWC-27S, YGWC-28S

Molybdenum (mg/L)

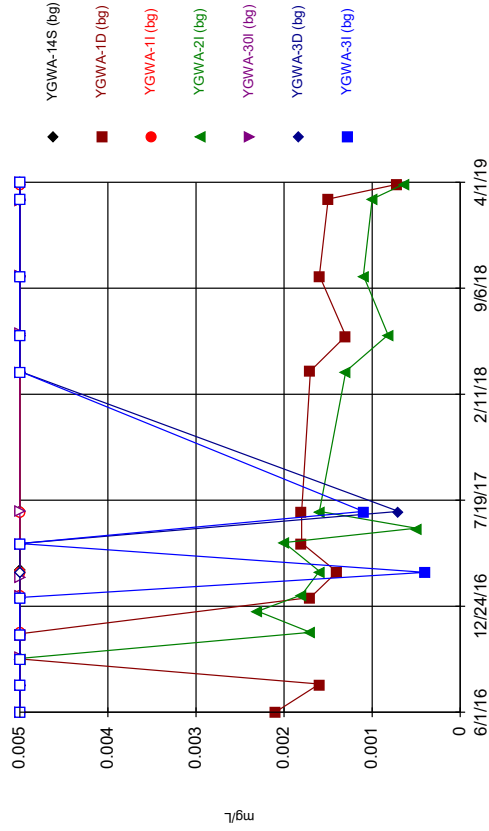
YGWC-26I, YGWC-26S, YGWC-27S, YGWC-29I

Selenium (mg/L)

YGWC-27I, YGWC-27S, YGWC-29I

Sanitas™ v.9.6.05 Sanitas software licensed to ACC, UG
Hollow symbols indicate censored values.

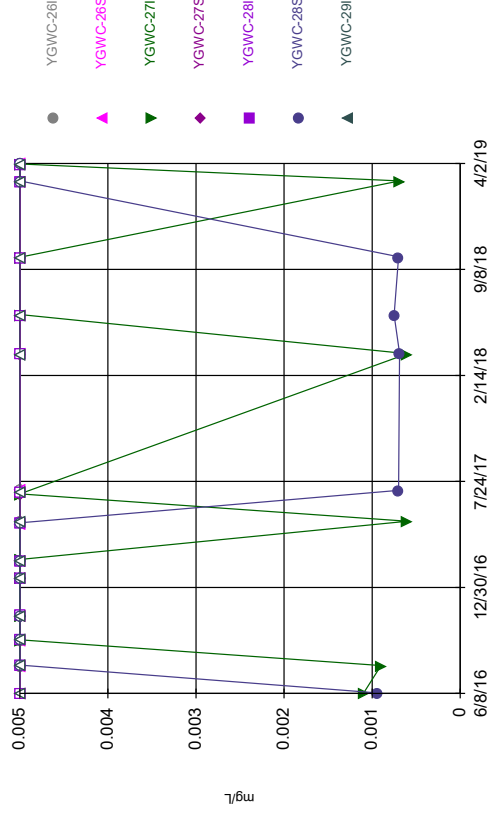
Time Series



Constituent: Arsenic Analysis Run 5/3/2019 11:26 AM View: Time Series
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Sanitas™ v.9.6.05 Sanitas software licensed to ACC, UG
Hollow symbols indicate censored values.

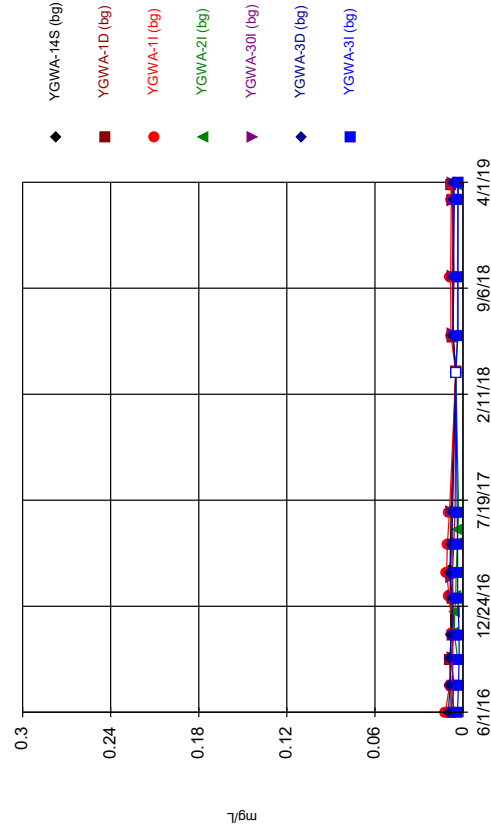
Time Series



Constituent: Arsenic Analysis Run 5/3/2019 11:26 AM View: Time Series
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Sanitas™ v.9.6.05 Sanitas software licensed to ACC, UG
Hollow symbols indicate censored values.

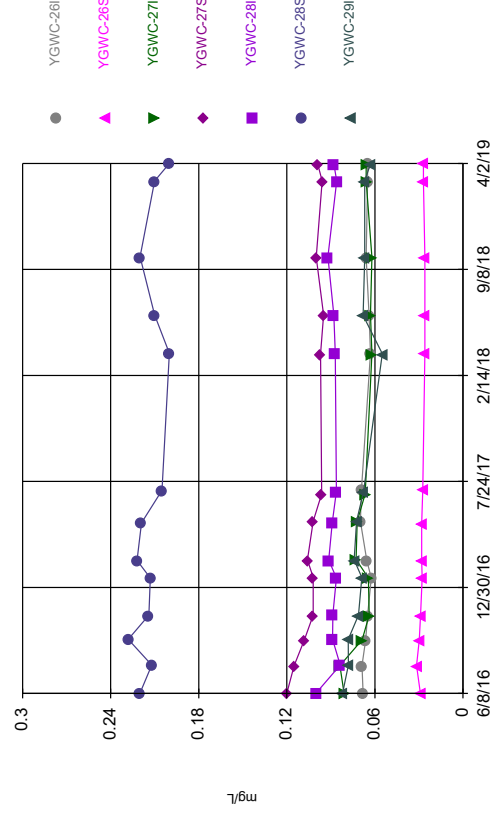
Time Series



Constituent: Barium Analysis Run 5/3/2019 11:26 AM View: Time Series
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Sanitas™ v.9.6.05 Sanitas software licensed to ACC, UG
Hollow symbols indicate censored values.

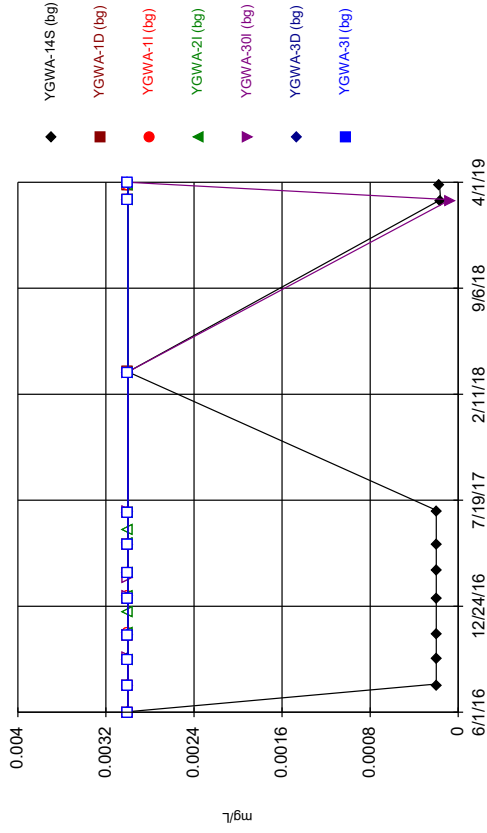
Time Series



Constituent: Barium Analysis Run 5/3/2019 11:26 AM View: Time Series
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Sanitas™ v.9.6.05 Sanitas software licensed to ACC, UG
Hollow symbols indicate censored values.

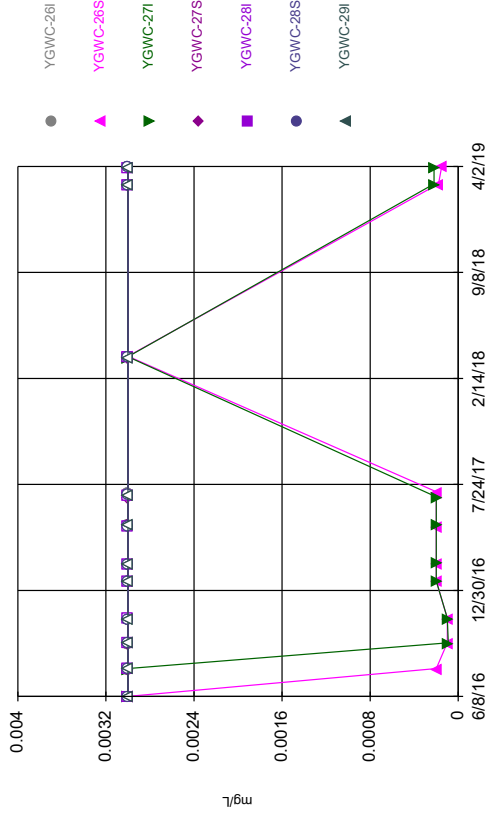
Time Series



Constituent: Beryllium Analysis Run 5/3/2019 11:26 AM View: Time Series
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Sanitas™ v.9.6.05 Sanitas software licensed to ACC, UG
Hollow symbols indicate censored values.

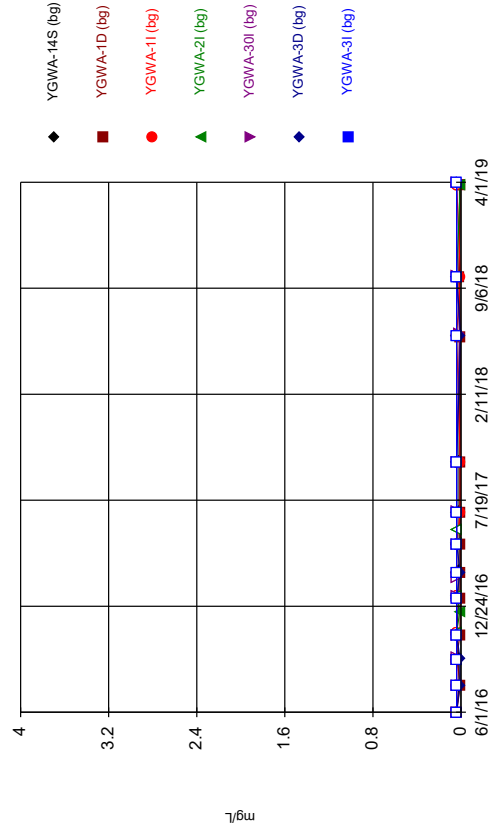
Time Series



Constituent: Beryllium Analysis Run 5/3/2019 11:26 AM View: Time Series
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Sanitas™ v.9.6.05 Sanitas software licensed to ACC, UG
Hollow symbols indicate censored values.

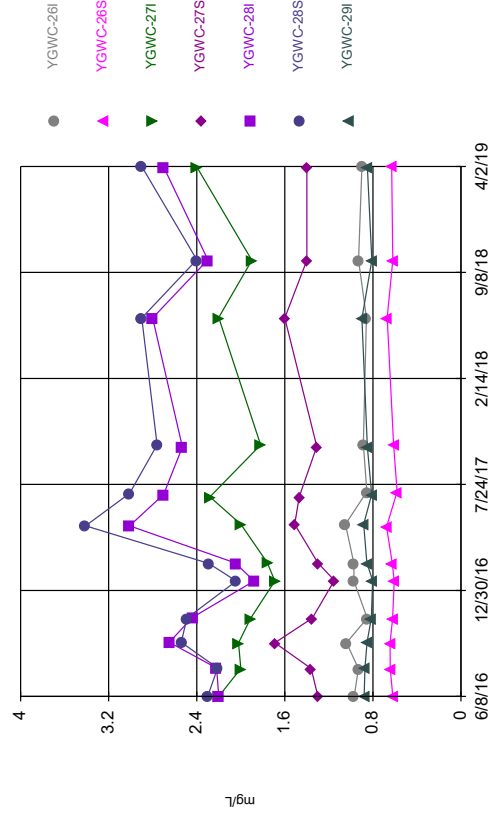
Time Series



Constituent: Boron Analysis Run 5/3/2019 11:26 AM View: Time Series
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Sanitas™ v.9.6.05 Sanitas software licensed to ACC, UG

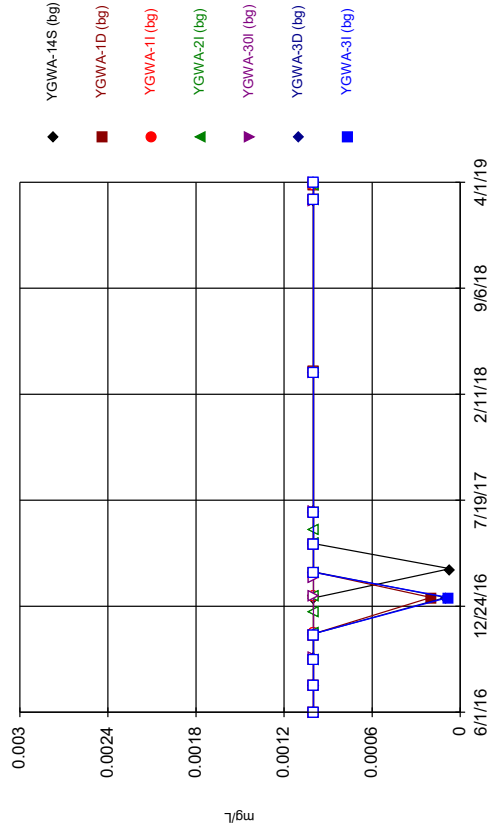
Time Series



Constituent: Boron Analysis Run 5/3/2019 11:26 AM View: Time Series
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Sanitas™ v.9.6.05 Sanitas software licensed to ACC, UG
Hollow symbols indicate censored values.

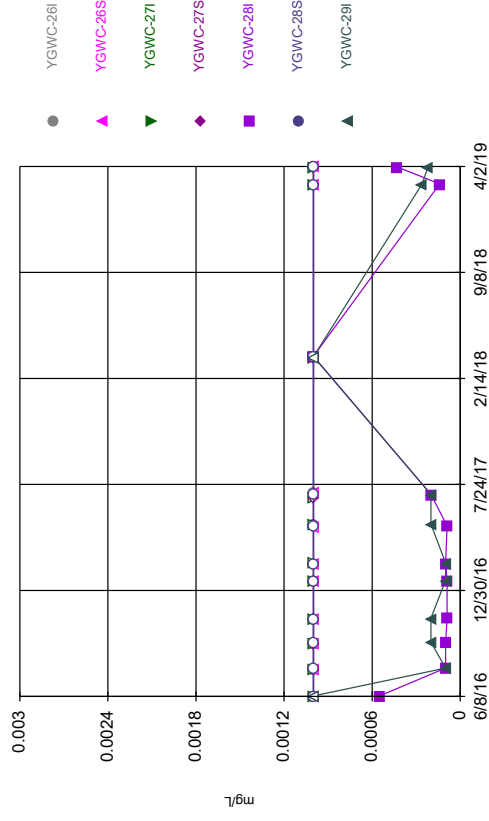
Time Series



Constituent: Cadmium Analysis Run 5/3/2019 11:26 AM View: Time Series
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Sanitas™ v.9.6.05 Sanitas software licensed to ACC, UG
Hollow symbols indicate censored values.

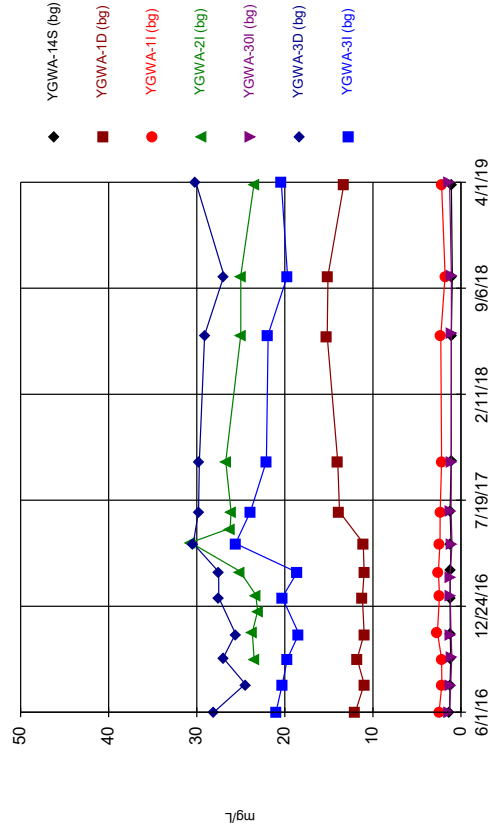
Time Series



Constituent: Cadmium Analysis Run 5/3/2019 11:26 AM View: Time Series
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Sanitas™ v.9.6.05 Sanitas software licensed to ACC, UG

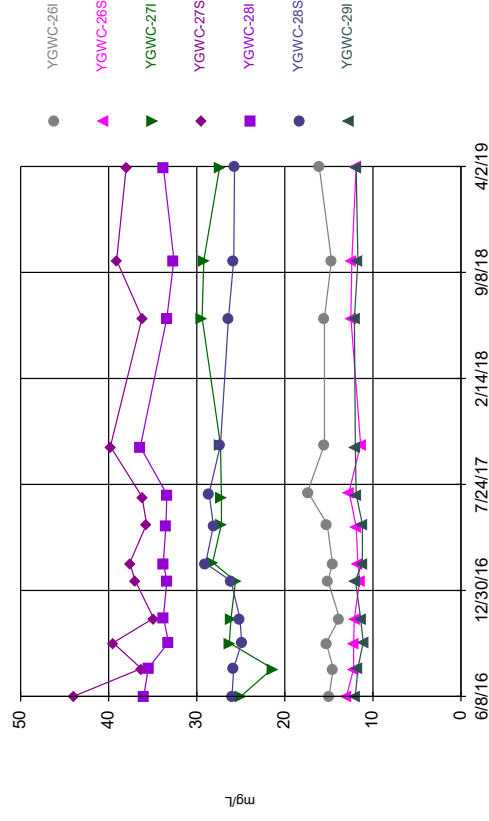
Time Series



Constituent: Calcium Analysis Run 5/3/2019 11:26 AM View: Time Series
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

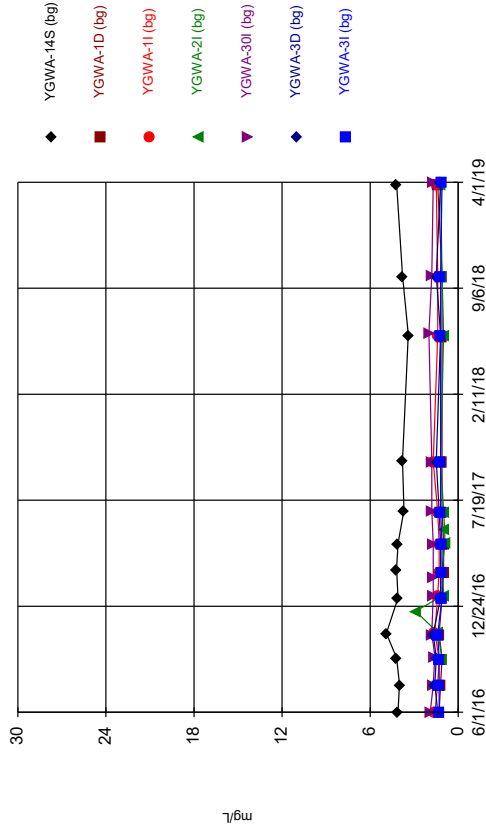
Sanitas™ v.9.6.05 Sanitas software licensed to ACC, UG

Time Series



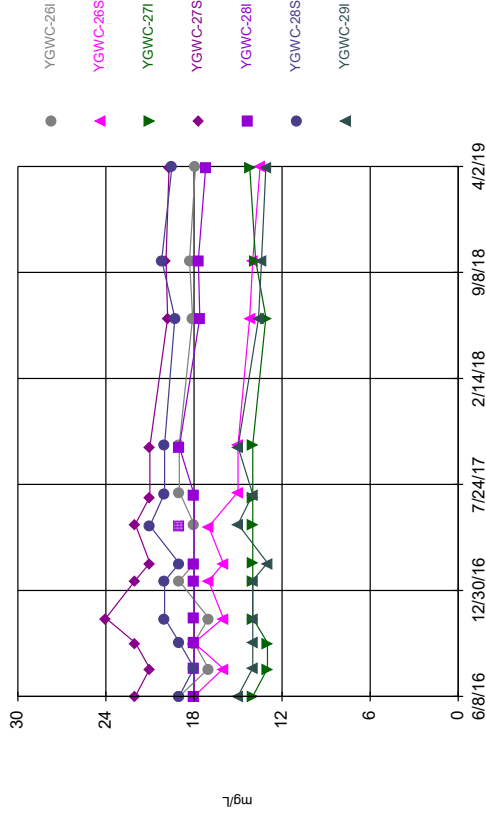
Constituent: Calcium Analysis Run 5/3/2019 11:26 AM View: Time Series
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Time Series



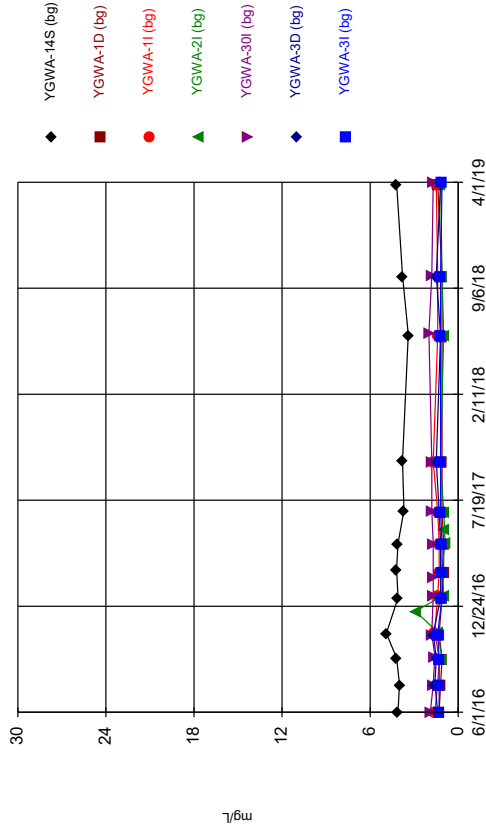
Constituent: Chloride Analysis Run 5/3/2019 11:26 AM View: Time Series
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Time Series



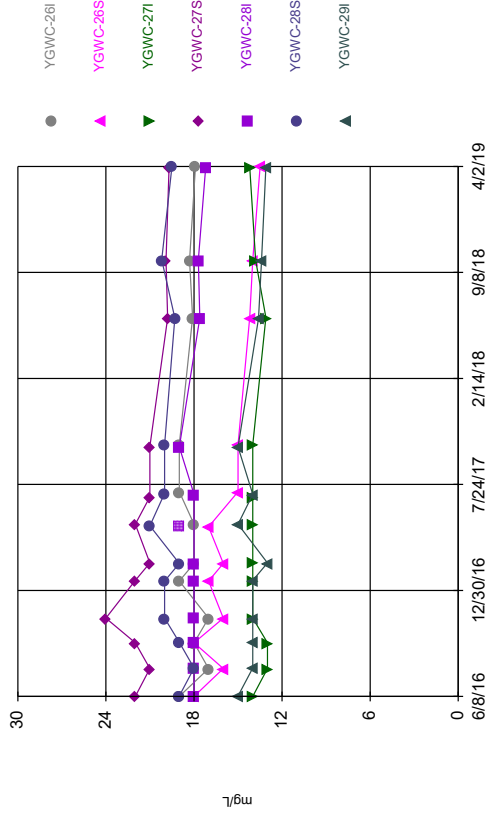
Constituent: Chloride Analysis Run 5/3/2019 11:26 AM View: Time Series
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Time Series



Constituent: Chromium Analysis Run 5/3/2019 11:26 AM View: Time Series
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

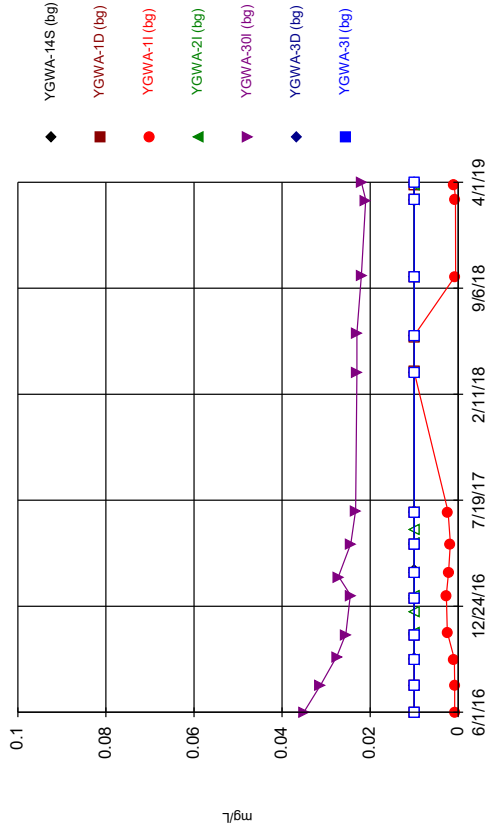
Time Series



Constituent: Chromium Analysis Run 5/3/2019 11:26 AM View: Time Series
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Sanitas™ v.9.6.05 Sanitas software licensed to ACC, UG
Hollow symbols indicate censored values.

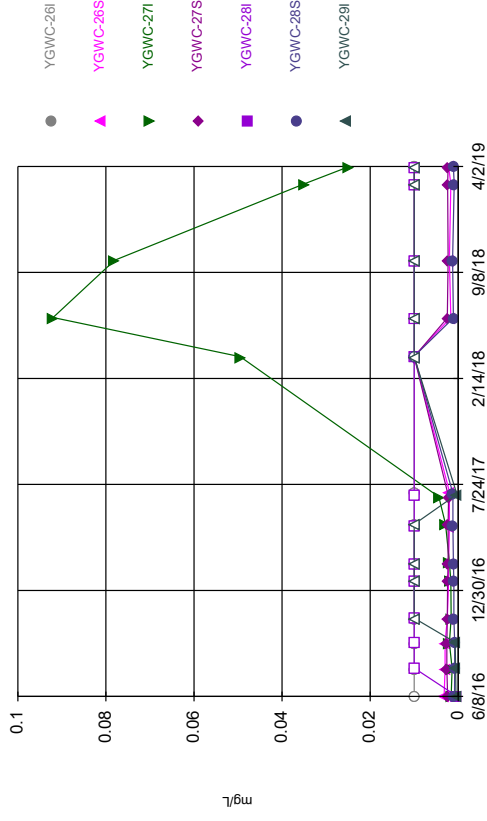
Time Series



Constituent: Cobalt Analysis Run 5/3/2019 11:26 AM View: Time Series
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Sanitas™ v.9.6.05 Sanitas software licensed to ACC, UG
Hollow symbols indicate censored values.

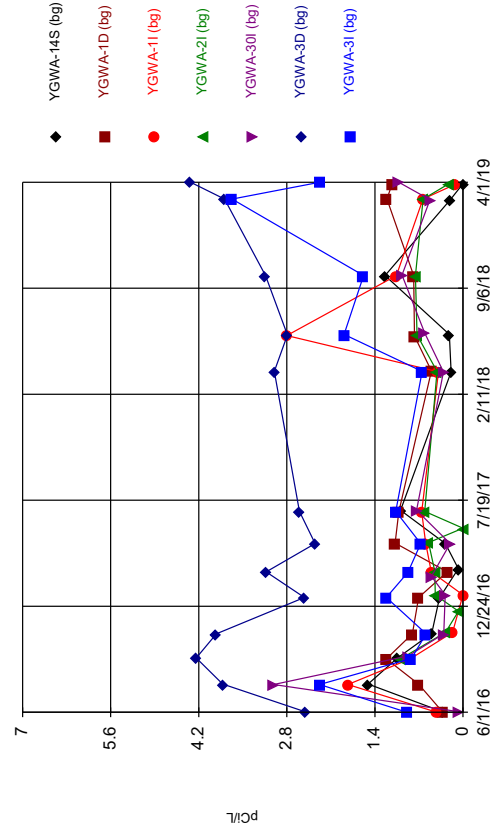
Time Series



Constituent: Cobalt Analysis Run 5/3/2019 11:26 AM View: Time Series
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Sanitas™ v.9.6.05 Sanitas software licensed to ACC, UG
Hollow symbols indicate censored values.

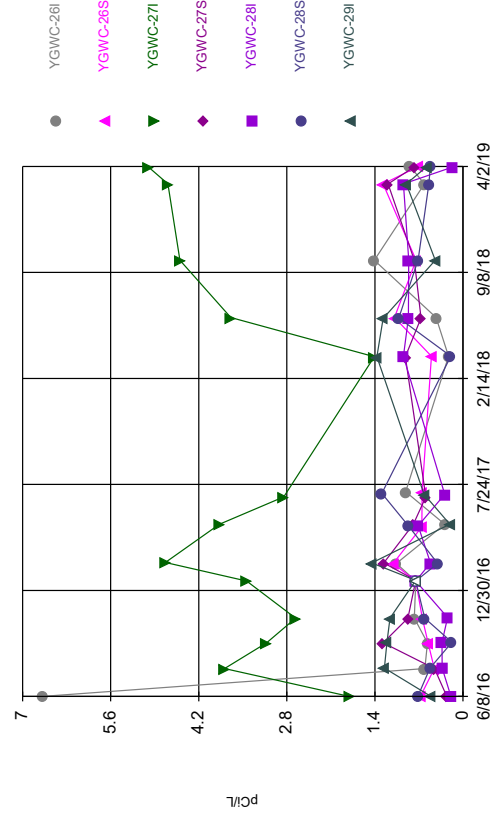
Time Series



Constituent: Combined Radium 226 + 228 Analysis Run 5/3/2019 11:26 AM View: Time Series
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Sanitas™ v.9.6.05 Sanitas software licensed to ACC, UG
Hollow symbols indicate censored values.

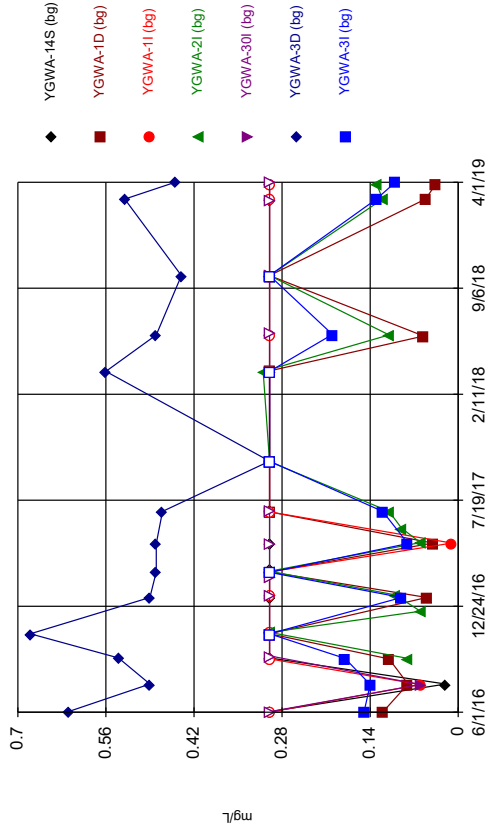
Time Series



Constituent: Combined Radium 226 + 228 Analysis Run 5/3/2019 11:26 AM View: Time Series
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Sanitas™ v.9.6.05 Sanitas software licensed to ACC, UG
Hollow symbols indicate censored values.

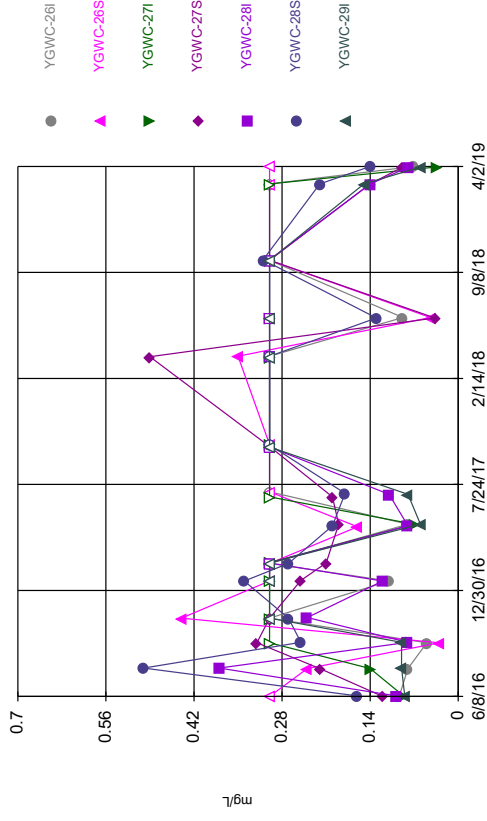
Time Series



Constituent: Fluoride Analysis Run 5/3/2019 11:26 AM View: Time Series
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Sanitas™ v.9.6.05 Sanitas software licensed to ACC, UG
Hollow symbols indicate censored values.

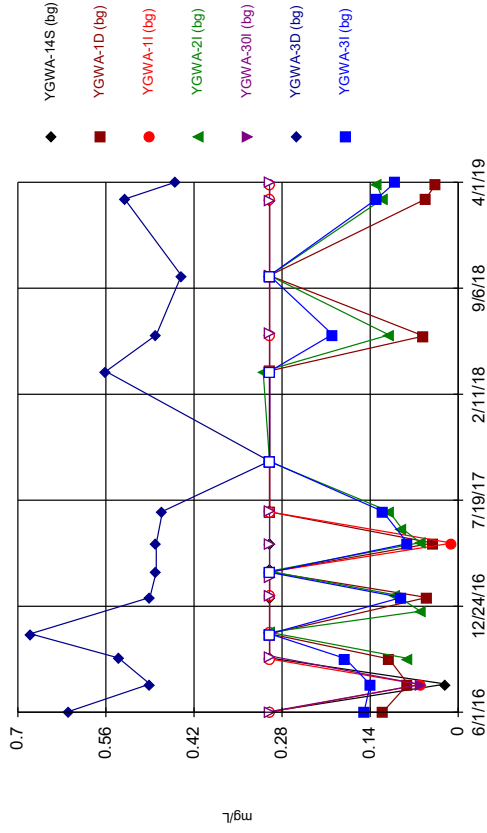
Time Series



Constituent: Fluoride Analysis Run 5/3/2019 11:26 AM View: Time Series
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Sanitas™ v.9.6.05 Sanitas software licensed to ACC, UG
Hollow symbols indicate censored values.

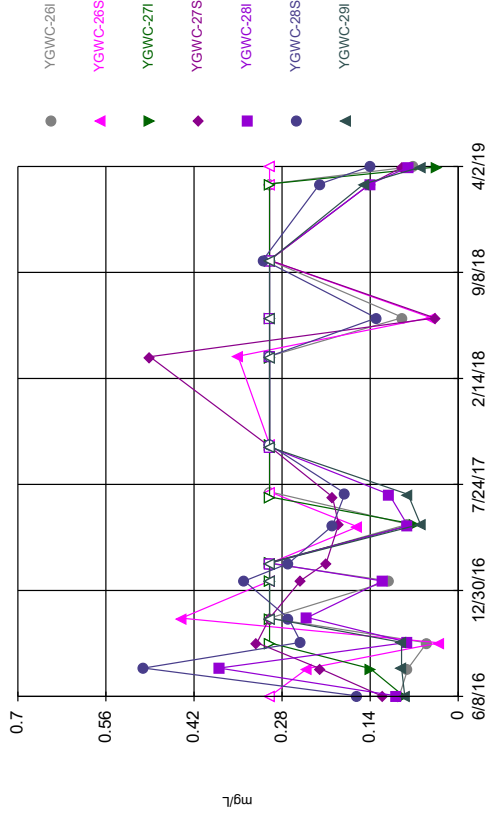
Time Series



Constituent: Lithium Analysis Run 5/3/2019 11:26 AM View: Time Series
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Sanitas™ v.9.6.05 Sanitas software licensed to ACC, UG
Hollow symbols indicate censored values.

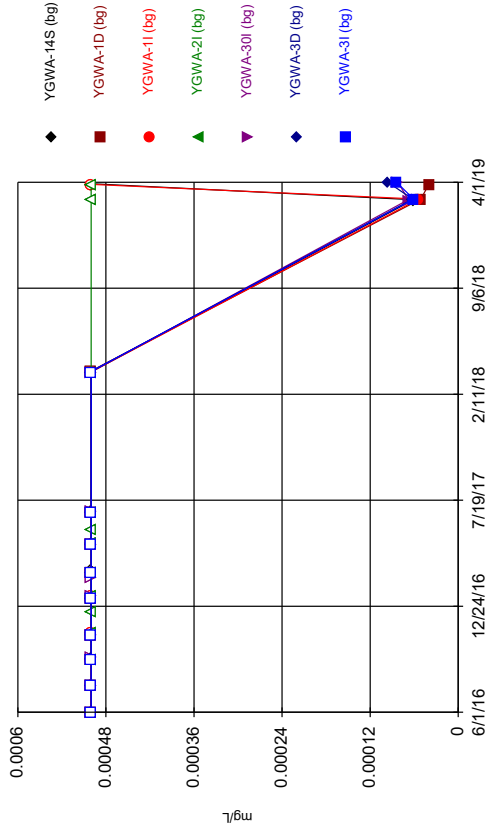
Time Series



Constituent: Lithium Analysis Run 5/3/2019 11:26 AM View: Time Series
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Sanitas™ v.9.6.05 Sanitas software licensed to ACC, UG
Hollow symbols indicate censored values.

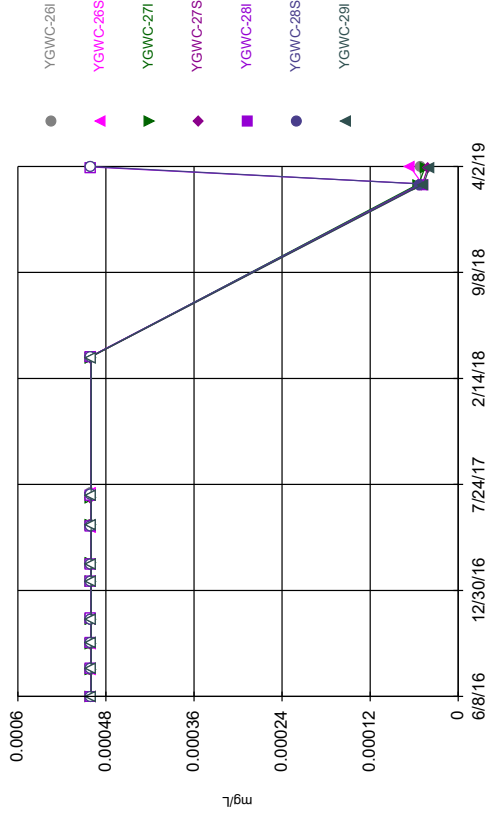
Time Series



Constituent: Mercury Analysis Run 5/3/2019 11:27 AM View: Time Series
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Sanitas™ v.9.6.05 Sanitas software licensed to ACC, UG
Hollow symbols indicate censored values.

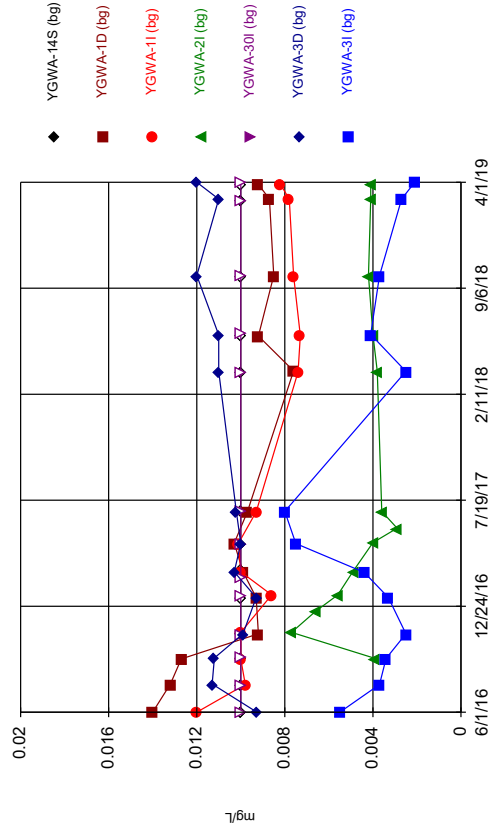
Time Series



Constituent: Mercury Analysis Run 5/3/2019 11:27 AM View: Time Series
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Sanitas™ v.9.6.05 Sanitas software licensed to ACC, UG
Hollow symbols indicate censored values.

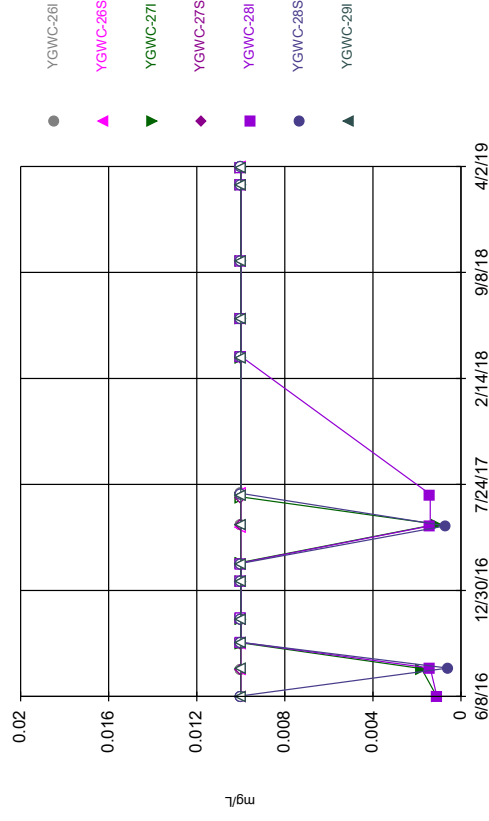
Time Series



Constituent: Molybdenum Analysis Run 5/3/2019 11:27 AM View: Time Series
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

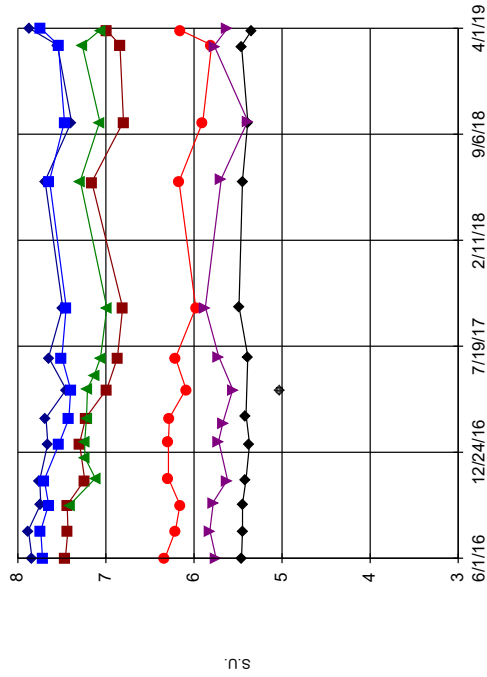
Sanitas™ v.9.6.05 Sanitas software licensed to ACC, UG
Hollow symbols indicate censored values.

Time Series



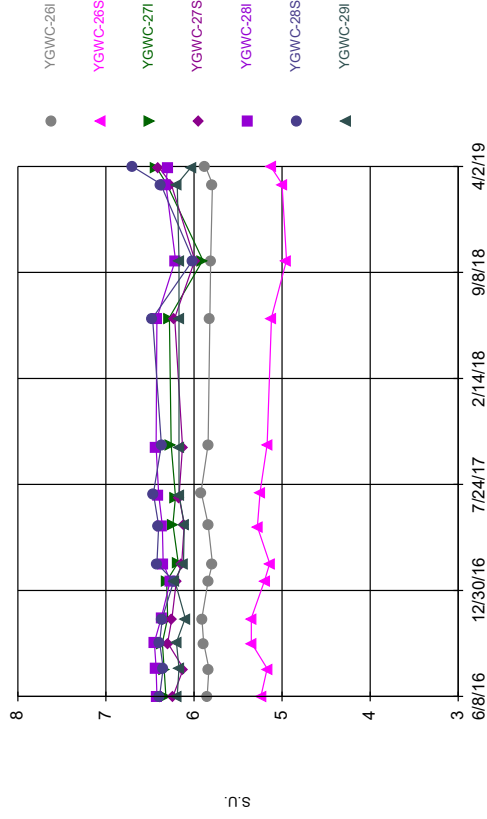
Constituent: Molybdenum Analysis Run 5/3/2019 11:27 AM View: Time Series
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Time Series



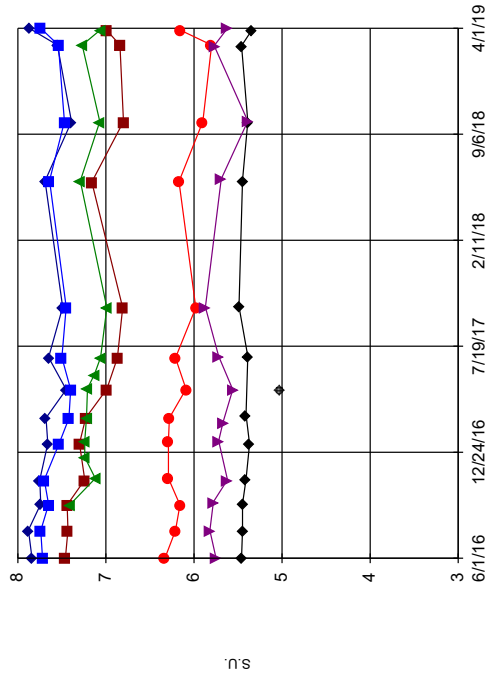
Constituent: pH Analysis Run 5/3/2019 11:27 AM View: Time Series
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Time Series



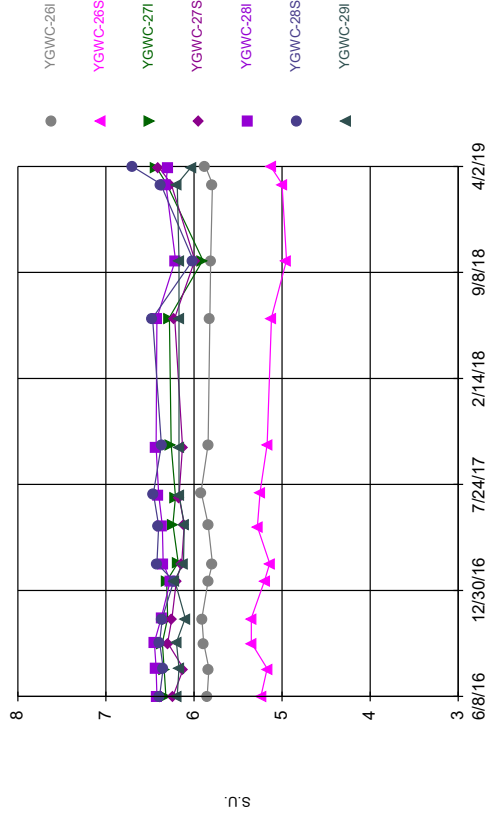
Constituent: pH Analysis Run 5/3/2019 11:27 AM View: Time Series
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Time Series



Constituent: Selenium Analysis Run 5/3/2019 11:27 AM View: Time Series
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

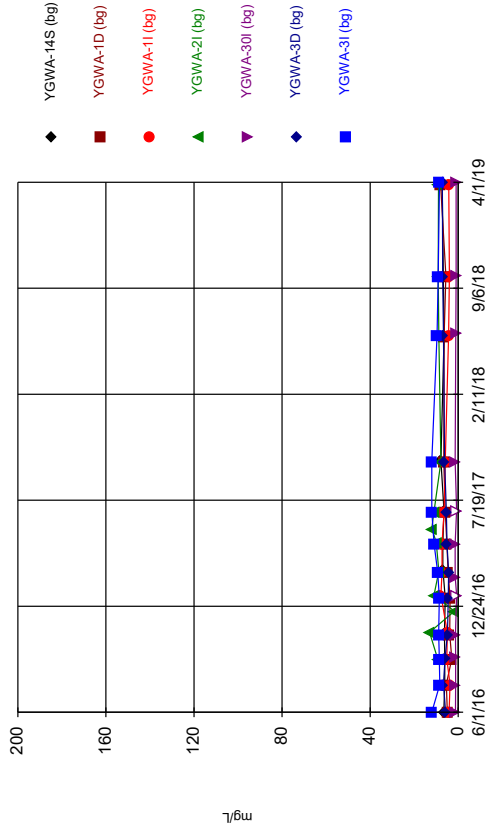
Time Series



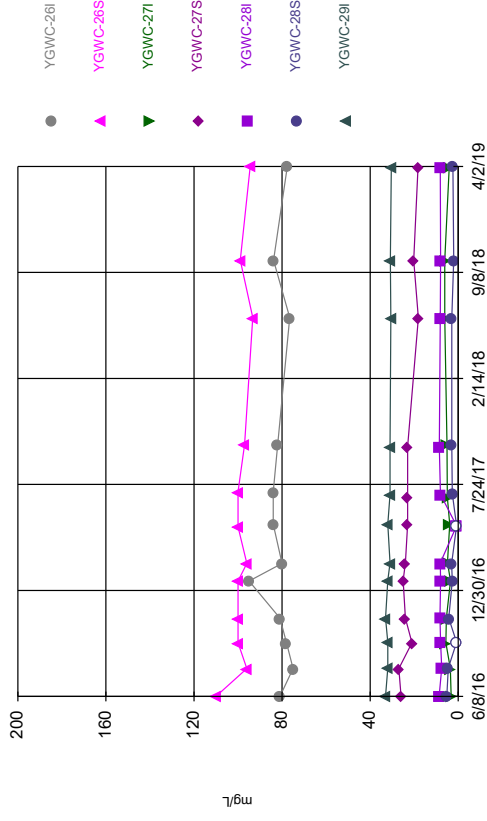
Constituent: Selenium Analysis Run 5/3/2019 11:27 AM View: Time Series
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

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Hollow symbols indicate censored values.

Time Series



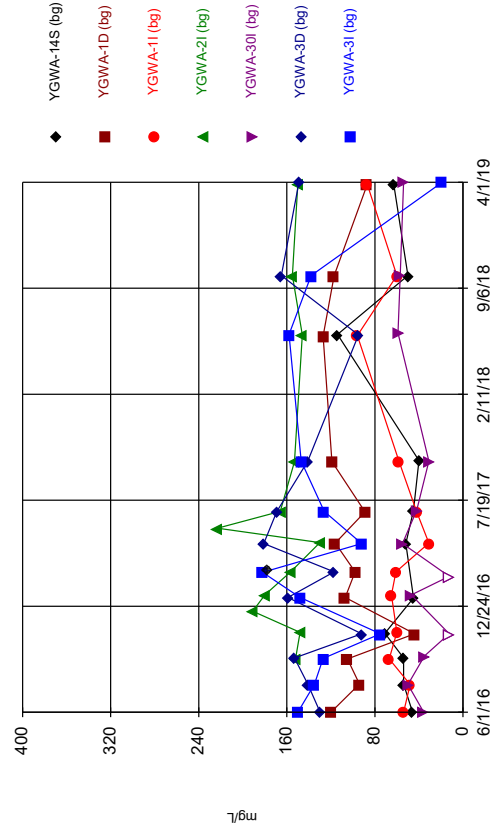
Constituent: Sulfate Analysis Run 5/3/2019 11:27 AM View: Time Series
Plant Yates Client: Southern Company Data: Yates Ash Pond 2



Constituent: Sulfate Analysis Run 5/3/2019 11:27 AM View: Time Series
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Sanitas™ v.9.6.05 Sanitas software licensed to ACC, UG
Hollow symbols indicate censored values.

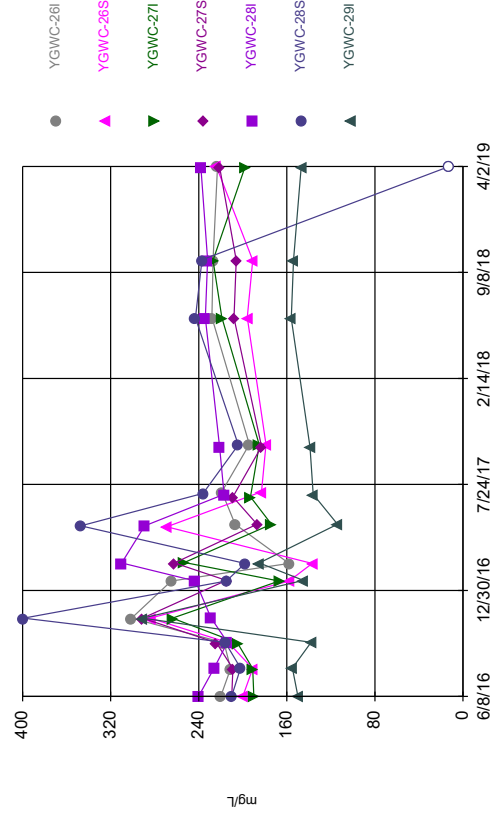
Time Series



Constituent: Total Dissolved Solids Analysis Run 5/3/2019 11:27 AM View: Time Series
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Sanitas™ v.9.6.05 Sanitas software licensed to ACC, UG
Hollow symbols indicate censored values.

Time Series



Constituent: Total Dissolved Solids Analysis Run 5/3/2019 11:27 AM View: Time Series
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

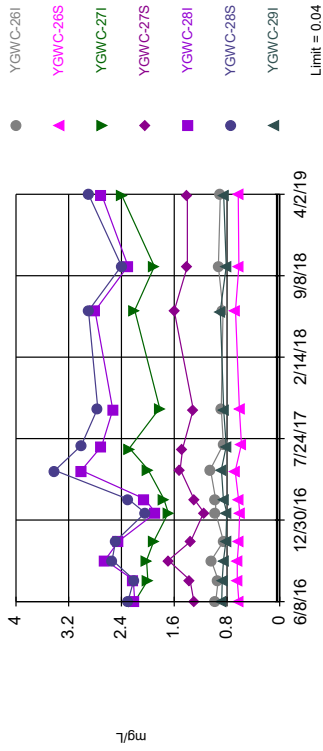
Interwell Prediction Limit

Plant Yates Client: Southern Company Data: Yates Ash Pond 2 Printed 5/3/2019, 11:38 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>
Boron (mg/L)	YGWC-261	0.04	4/2/2019	0.9	Yes	84	64.29	n/a	0.0002738	NP Inter (NDs) 1 of 2
Boron (mg/L)	YGWC-265	0.04	4/2/2019	0.63	Yes	84	64.29	n/a	0.0002738	NP Inter (NDs) 1 of 2
Boron (mg/L)	YGWC-271	0.04	4/1/2019	2.4	Yes	84	64.29	n/a	0.0002738	NP Inter (NDs) 1 of 2
Boron (mg/L)	YGWC-275	0.04	4/1/2019	1.4	Yes	84	64.29	n/a	0.0002738	NP Inter (NDs) 1 of 2
Boron (mg/L)	YGWC-281	0.04	4/1/2019	2.7	Yes	84	64.29	n/a	0.0002738	NP Inter (NDs) 1 of 2
Boron (mg/L)	YGWC-285	0.04	4/2/2019	2.9	Yes	84	64.29	n/a	0.0002738	NP Inter (NDs) 1 of 2
Boron (mg/L)	YGWC-291	0.04	4/1/2019	0.85	Yes	84	64.29	n/a	0.0002738	NP Inter (NDs) 1 of 2
Calcium (mg/L)	YGWC-261	30.7	4/2/2019	16.1	No	84	0	n/a	0.0002738	NP Inter (normality) 1 of 2
Calcium (mg/L)	YGWC-265	30.7	4/2/2019	11.9	No	84	0	n/a	0.0002738	NP Inter (normality) 1 of 2
Calcium (mg/L)	YGWC-271	30.7	4/1/2019	27.4	No	84	0	n/a	0.0002738	NP Inter (normality) 1 of 2
Calcium (mg/L)	YGWC-275	30.7	4/1/2019	38	Yes	84	0	n/a	0.0002738	NP Inter (normality) 1 of 2
Calcium (mg/L)	YGWC-281	30.7	4/1/2019	33.8	Yes	84	0	n/a	0.0002738	NP Inter (normality) 1 of 2
Calcium (mg/L)	YGWC-285	30.7	4/2/2019	25.7	No	84	0	n/a	0.0002738	NP Inter (normality) 1 of 2
Calcium (mg/L)	YGWC-291	30.7	4/1/2019	11.9	No	84	0	n/a	0.0002738	NP Inter (normality) 1 of 2
Chloride (mg/L)	YGWC-261	4.9	4/2/2019	17.9	Yes	84	0	n/a	0.0002738	NP Inter (normality) 1 of 2
Chloride (mg/L)	YGWC-265	4.9	4/2/2019	13.5	Yes	84	0	n/a	0.0002738	NP Inter (normality) 1 of 2
Chloride (mg/L)	YGWC-271	4.9	4/1/2019	14.2	Yes	84	0	n/a	0.0002738	NP Inter (normality) 1 of 2
Chloride (mg/L)	YGWC-275	4.9	4/1/2019	19.7	Yes	84	0	n/a	0.0002738	NP Inter (normality) 1 of 2
Chloride (mg/L)	YGWC-281	4.9	4/1/2019	17.2	Yes	84	0	n/a	0.0002738	NP Inter (normality) 1 of 2
Chloride (mg/L)	YGWC-285	4.9	4/2/2019	19.5	Yes	84	0	n/a	0.0002738	NP Inter (normality) 1 of 2
Chloride (mg/L)	YGWC-291	4.9	4/1/2019	13.1	Yes	84	0	n/a	0.0002738	NP Inter (normality) 1 of 2
Sulfate (mg/L)	YGWC-261	11.99	4/2/2019	77.6	Yes	84	2.381	No	0.001075	Param Inter 1 of 2
Sulfate (mg/L)	YGWC-265	11.99	4/2/2019	94.5	Yes	84	2.381	No	0.001075	Param Inter 1 of 2
Sulfate (mg/L)	YGWC-271	11.99	4/1/2019	4.1	No	84	2.381	No	0.001075	Param Inter 1 of 2
Sulfate (mg/L)	YGWC-275	11.99	4/1/2019	18.3	Yes	84	2.381	No	0.001075	Param Inter 1 of 2
Sulfate (mg/L)	YGWC-281	11.99	4/1/2019	8.2	No	84	2.381	No	0.001075	Param Inter 1 of 2
Sulfate (mg/L)	YGWC-285	11.99	4/2/2019	2.4	No	84	2.381	No	0.001075	Param Inter 1 of 2
Sulfate (mg/L)	YGWC-291	11.99	4/1/2019	30.4	Yes	84	2.381	No	0.001075	Param Inter 1 of 2

Exceeds Limit: YGWC-261, YGWC-26S, YGWC-271, YGWC-27S, YGWC-281, YGWC

Interwell Non-parametric Prediction Limit

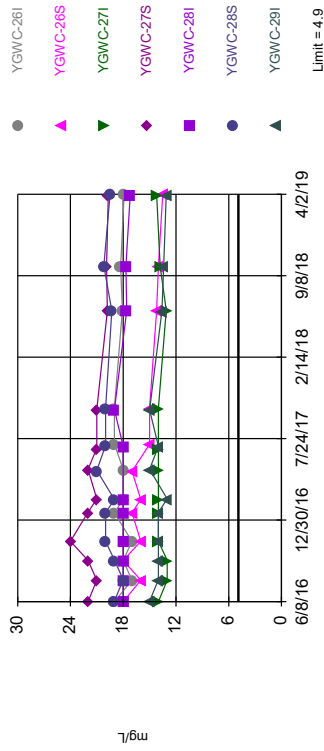


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 84 background values. 64.29% NDs. Limit is highest of 0.002738 (1 of 2). Comparing 7 points to limit.

Constituent: Boron Analysis Run 5/3/2019 11:36 AM View: Interwell PL
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Exceeds Limit: YGWC-261, YGWC-26S, YGWC-271, YGWC-27S, YGWC-281, YGWC

Interwell Non-parametric Prediction Limit

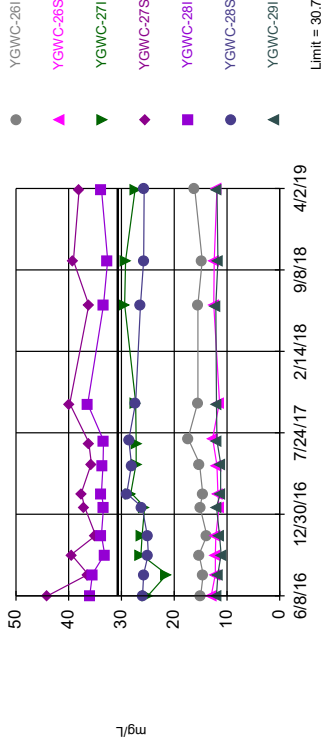


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 84 background values. Annual per-constituent alpha = 0.003827. Individual comparison alpha = 0.0002738 (1 of 2). Comparing 7 points to limit.

Constituent: Chloride Analysis Run 5/3/2019 11:36 AM View: Interwell PL
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Exceeds Limit: YGWC-27S, YGWC-281

Interwell Non-parametric Prediction Limit

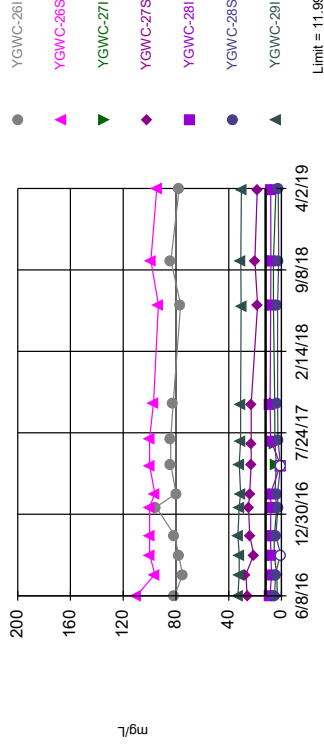


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 84 background values. Annual per-constituent alpha = 0.003827. Individual comparison alpha = 0.0002738 (1 of 2). Comparing 7 points to limit.

Constituent: Calcium Analysis Run 5/3/2019 11:36 AM View: Interwell PL
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Exceeds Limit: YGWC-261, YGWC-26S, YGWC-27S, YGWC-291

Interwell Parametric Prediction Limit



Background Data Summary: Mean=6.22, Std. Dev.=3.051, n=84, 2.381% NDs. Normality test: Shapiro Francia @alpha = 0.01, calculated = 0.9773, critical = 0.96. Kappa = 1.891 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.001075. Comparing 7 points to limit.

Constituent: Sulfate Analysis Run 5/3/2019 11:36 AM View: Interwell PL
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 5/3/2019 11:38 AM View: Interwell PL

Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWC-26S	YGWC-29I	YGWC-28S	YGWC-28I	YGWA-2I (bg)
6/1/2016					
6/2/2016					
6/8/2016	0.62				
6/9/2016		0.88	2.3	2.2	
7/25/2016					
7/26/2016					
8/1/2016	0.643				
8/2/2016		0.872	2.21	2.22	
9/13/2016					
9/14/2016					<0.04
9/15/2016					
9/19/2016					
9/20/2016	0.644				
9/21/2016		0.853	2.54	2.65	
11/1/2016					
11/2/2016					
11/4/2016					<0.04
11/7/2016	0.621	0.815	2.49		
11/8/2016				2.44	
12/15/2016					0.0107 (J)
1/10/2017					
1/11/2017					
1/16/2017					<0.04
1/18/2017	0.607		2.04	1.88	
1/19/2017		0.803			
2/21/2017	0.624		2.29		
2/22/2017		0.855		2.05	
2/23/2017					
3/1/2017					
3/2/2017					
3/3/2017					<0.04
3/8/2017					
4/26/2017					
4/27/2017					
4/28/2017					<0.04
5/3/2017	0.676				
5/5/2017			3.41	3.01	
5/8/2017		0.884			
5/26/2017					<0.04
6/27/2017					
6/28/2017					<0.04
6/30/2017					
7/5/2017		0.811		2.7	
7/7/2017			3.01		
7/10/2017	0.58				
10/3/2017					<0.04
10/4/2017					
10/5/2017		0.851		2.53	
10/6/2017					
10/9/2017			2.76		
10/10/2017	0.612				
6/5/2018					

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 5/3/2019 11:38 AM View: Interwell PL
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWC-26S	YGWC-29I	YGWC-28S	YGWC-28I	YGWA-2I (bg)
6/6/2018					
6/7/2018					<0.04
6/8/2018					
6/11/2018		0.9			
6/12/2018			2.9	2.8	
6/13/2018	0.67				
10/1/2018					<0.04
10/2/2018	0.62	0.81			
10/3/2018			2.4	2.3	
3/28/2019					
3/29/2019					0.0065 (J)
4/1/2019		0.85		2.7	
4/2/2019	0.63		2.9		

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 5/3/2019 11:38 AM View: Interwell PL
 Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWC-26S	YGWC-29I	YGWC-28S	YGWC-28I	YGWA-2I (bg)
6/1/2016					
6/2/2016					
6/8/2016	13				
6/9/2016		12	26	36	
7/25/2016					
7/26/2016					
8/1/2016	12.2				
8/2/2016		11.7	25.8	35.5	
9/13/2016					
9/14/2016					23.5
9/15/2016					
9/19/2016					
9/20/2016	12.2				
9/21/2016		11.1	24.9	33.2	
11/1/2016					
11/2/2016					
11/4/2016					23.7
11/7/2016	12.1	11.4	25.1		
11/8/2016				33.8	
12/15/2016					23.1
1/10/2017					
1/11/2017					
1/16/2017					23.3
1/18/2017	11.5		26.1	33.4	
1/19/2017		12			
2/21/2017	11.7		29		
2/22/2017		11.2		33.8	
2/23/2017					
3/1/2017					
3/2/2017					
3/3/2017					25.1
3/8/2017					
4/26/2017					
4/27/2017					
4/28/2017					30.7
5/3/2017	11.9				
5/5/2017			28.1	33.5	
5/8/2017		11.2			
5/26/2017					26.2
6/27/2017					
6/28/2017					26.1
6/30/2017					
7/5/2017		11.9		33.4	
7/7/2017			28.6		
7/10/2017	12.7				
10/3/2017					26.7
10/4/2017					
10/5/2017		12		36.4	
10/6/2017					
10/9/2017			27.3		
10/10/2017	11.4				
6/5/2018					

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 5/3/2019 11:38 AM View: Interwell PL
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWC-26S	YGWC-29I	YGWC-28S	YGWC-28I	YGWA-2I (bg)
6/6/2018					
6/7/2018					25
6/8/2018					
6/11/2018		12.1			
6/12/2018			26.4	33.4	
6/13/2018	12.5				
10/1/2018					25
10/2/2018	12.4 (J)	11.7 (J)			
10/3/2018			25.8	32.6	
3/28/2019					
3/29/2019					23.5 (J)
4/1/2019		11.9 (J)		33.8	
4/2/2019	11.9 (J)		25.7		

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 5/3/2019 11:38 AM View: Interwell PL
 Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWC-26S	YGWC-29I	YGWC-28S	YGWC-28I	YGWA-2I (bg)
6/1/2016					
6/2/2016					
6/8/2016	18				
6/9/2016		15	19	18	
7/25/2016					
7/26/2016					
8/1/2016	16				
8/2/2016		14	18	18	
9/13/2016					
9/14/2016					1.1
9/15/2016					
9/19/2016					
9/20/2016	18				
9/21/2016		14	19	18	
11/1/2016					
11/2/2016					
11/4/2016					1.4
11/7/2016	16	14	20		
11/8/2016				18	
12/15/2016					2.9
1/10/2017					
1/11/2017					
1/16/2017					0.98
1/18/2017	17		20	18	
1/19/2017		14			
2/21/2017	16		19		
2/22/2017		13		18	
2/23/2017					
3/1/2017					
3/2/2017					
3/3/2017					1.1
3/8/2017					
4/26/2017					
4/27/2017					
4/28/2017					0.91
5/3/2017	17				
5/5/2017			21	19 (o)	
5/8/2017		15			
5/26/2017					0.93
6/27/2017					
6/28/2017					1
6/30/2017					
7/5/2017		14		18	
7/7/2017			20		
7/10/2017	15				
10/3/2017					1.2
10/4/2017					
10/5/2017		15		19	
10/6/2017					
10/9/2017			20		
10/10/2017	15				
6/5/2018					

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 5/3/2019 11:38 AM View: Interwell PL
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWC-26S	YGWC-29I	YGWC-28S	YGWC-28I	YGWA-2I (bg)
6/6/2018					
6/7/2018					1
6/8/2018					
6/11/2018		13.6			
6/12/2018			19.3	17.6	
6/13/2018	14.2				
10/1/2018					1.1
10/2/2018	14	13.4			
10/3/2018			20.2	17.7	
3/28/2019					
3/29/2019					1.2
4/1/2019		13.1		17.2	
4/2/2019	13.5		19.5		

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 5/3/2019 11:38 AM View: Interwell PL
 Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWC-26S	YGWC-29I	YGWC-28S	YGWC-28I	YGWA-2I (bg)
6/1/2016					
6/2/2016					
6/8/2016	110				
6/9/2016		33	5.2	8.7	
7/25/2016					
7/26/2016					
8/1/2016	96				
8/2/2016		32	4.5	7.5	
9/13/2016					
9/14/2016					9.4
9/15/2016					
9/19/2016					
9/20/2016	100				
9/21/2016		32	<1.5 (*)	8	
11/1/2016					
11/2/2016					
11/4/2016					13
11/7/2016	100	33	4.3		
11/8/2016				8.3	
12/15/2016					1.8
1/10/2017					
1/11/2017					
1/16/2017					11
1/18/2017	100		2.7	8	
1/19/2017		32			
2/21/2017	96		3		
2/22/2017		31		8.2	
2/23/2017					
3/1/2017					
3/2/2017					
3/3/2017					8.8
3/8/2017					
4/26/2017					
4/27/2017					
4/28/2017					10
5/3/2017	100				
5/5/2017			<1.5 (*)	<1.5 (*)	
5/8/2017		32			
5/26/2017					12
6/27/2017					
6/28/2017					11
6/30/2017					
7/5/2017		31		8.1	
7/7/2017			2.7		
7/10/2017	100				
10/3/2017					7.9
10/4/2017					
10/5/2017		31		8.6	
10/6/2017					
10/9/2017			2.9		
10/10/2017	97				
6/5/2018					

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 5/3/2019 11:38 AM View: Interwell PL
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWC-26S	YGWC-29I	YGWC-28S	YGWC-28I	YGWA-2I (bg)
6/6/2018					
6/7/2018					8.8
6/8/2018					
6/11/2018		30.6			
6/12/2018			2.9	8.2	
6/13/2018	93.3				
10/1/2018					9.1
10/2/2018	99	30.8			
10/3/2018			2.1	8	
3/28/2019					
3/29/2019					9
4/1/2019		30.4		8.2	
4/2/2019	94.5		2.4		

Intrawell Prediction Limit

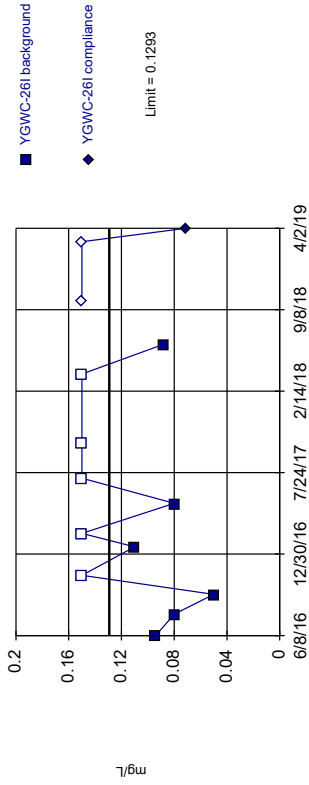
Plant Yates Client: Southern Company Data: Yates Ash Pond 2 Printed 5/3/2019, 2:20 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg.N	%NDs	Transform	Alpha	Method
Fluoride (mg/L)	YGWC-26I	0.1293	n/a	4/2/2019	0.071	No	11	45.45	ln(x)	0.001075	Param Intra 1 of 3
Fluoride (mg/L)	YGWC-26S	0.4061	n/a	4/2/2019	0.15ND	No	11	45.45	No	0.001075	Param Intra 1 of 3
Fluoride (mg/L)	YGWC-27I	0.3	n/a	4/1/2019	0.034	No	11	72.73	n/a	0.002806	NP Intra (NDs) 1 of 3
Fluoride (mg/L)	YGWC-27S	0.4186	n/a	4/1/2019	0.088	No	11	18.18	No	0.001075	Param Intra 1 of 3
Fluoride (mg/L)	YGWC-28I	0.3065	n/a	4/1/2019	0.078	No	11	36.36	No	0.001075	Param Intra 1 of 3
Fluoride (mg/L)	YGWC-28S	0.4188	n/a	4/2/2019	0.14	No	11	18.18	No	0.001075	Param Intra 1 of 3
Fluoride (mg/L)	YGWC-29I	0.3	n/a	4/1/2019	0.059	No	11	54.55	n/a	0.002806	NP Intra (NDs) 1 of 3
pH (S.U.)	YGWC-26I	6.19	5.79	4/2/2019	5.87	No	11	0	n/a	0.005613	NP Intra (normality) 1 of 3
pH (S.U.)	YGWC-26S	5.363	5.085	4/2/2019	5.13	No	11	0	No	0.0005373	Param Intra 1 of 3
pH (S.U.)	YGWC-27I	6.393	6.181	4/1/2019	6.43	Yes	11	0	No	0.0005373	Param Intra 1 of 3
pH (S.U.)	YGWC-27S	6.307	6.081	4/1/2019	6.4	Yes	11	0	No	0.0005373	Param Intra 1 of 3
pH (S.U.)	YGWC-28I	6.481	6.299	4/1/2019	6.3	No	11	0	No	0.0005373	Param Intra 1 of 3
pH (S.U.)	YGWC-28S	6.495	6.267	4/2/2019	6.7	Yes	11	0	No	0.0005373	Param Intra 1 of 3
pH (S.U.)	YGWC-29I	6.233	6.078	4/1/2019	6.03	Yes	11	0	No	0.0005373	Param Intra 1 of 3
Total Dissolved Solids (mg/L)	YGWC-26I	292.8	n/a	4/2/2019	223	No	10	0	No	0.001075	Param Intra 1 of 3
Total Dissolved Solids (mg/L)	YGWC-26S	284.3	n/a	4/2/2019	224	No	10	0	No	0.001075	Param Intra 1 of 3
Total Dissolved Solids (mg/L)	YGWC-27I	263.3	n/a	4/1/2019	198	No	10	0	No	0.001075	Param Intra 1 of 3
Total Dissolved Solids (mg/L)	YGWC-27S	280.4	n/a	4/1/2019	221	No	10	0	No	0.001075	Param Intra 1 of 3
Total Dissolved Solids (mg/L)	YGWC-28I	300.9	n/a	4/1/2019	238	No	10	0	No	0.001075	Param Intra 1 of 3
Total Dissolved Solids (mg/L)	YGWC-28S	399	n/a	4/2/2019	12.5ND	No	10	0	n/a	0.00344	NP Intra (normality) 1 of 3
Total Dissolved Solids (mg/L)	YGWC-29I	247.3	n/a	4/1/2019	147	No	10	0	ln(x)	0.001075	Param Intra 1 of 3

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Hollow symbols indicate censored values.

Within Limit

Prediction Limit
Intrawell Parametric



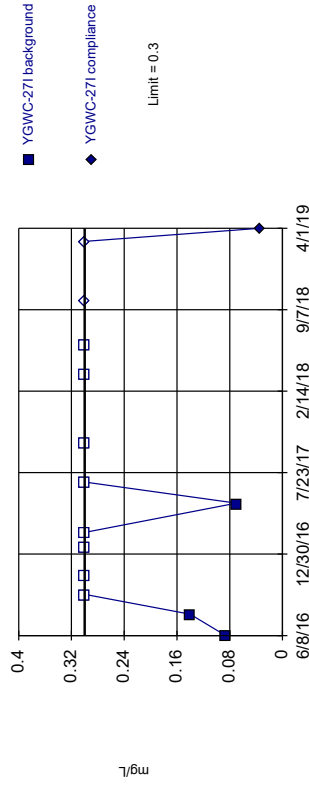
Background Data Summary (based on natural log transformation) (after Kaplan-Meier Adjustment): Mean=2.587, Std. Dev.=0.3044, n=11, 45.45% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7979, critical = 0.792. Kappa = 1.776 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: Fluoride Analysis Run 5/3/2019 2:18 PM View: Intrawell PL
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Santitas™ v.9.6.05 Santitas software licensed to ACC, UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit
Intrawell Non-parametric



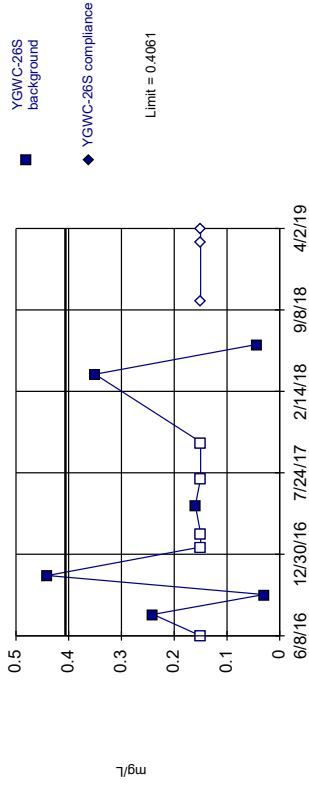
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 11 background values. 72.73% NDs. Well-constituent pair annual alpha = 0.005605. Individual comparison alpha = 0.002806 (1 of 3).

Constituent: Fluoride Analysis Run 5/3/2019 2:18 PM View: Intrawell PL
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Santitas™ v.9.6.05 Santitas software licensed to ACC, UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit
Intrawell Parametric



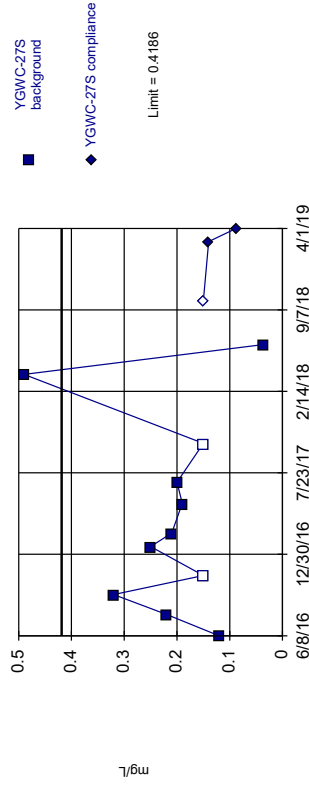
Background Data Summary (after Kaplan-Meier Adjustment): Mean=0.1688, Std. Dev.=0.1336, n=11, 45.45% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8746, critical = 0.792. Kappa = 1.776 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: Fluoride Analysis Run 5/3/2019 2:18 PM View: Intrawell PL
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Santitas™ v.9.6.05 Santitas software licensed to ACC, UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit
Intrawell Parametric



Background Data Summary (after Kaplan-Meier Adjustment): Mean=0.2171, Std. Dev.=0.1135, n=11, 18.18% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9548, critical = 0.792. Kappa = 1.776 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

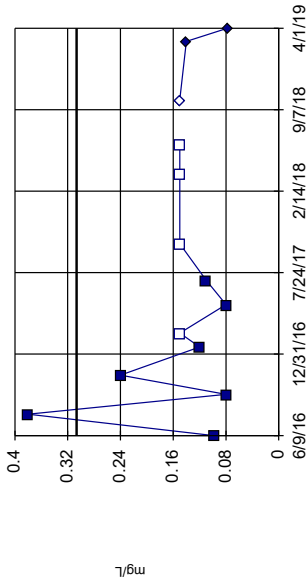
Constituent: Fluoride Analysis Run 5/3/2019 2:18 PM View: Intrawell PL
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Santitas™ v.9.6.05 Santitas software licensed to ACC, UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



■ YGWC-281 background
◆ YGWC-281 compliance
Limit = 0.3065

Background Data Summary (after Kaplan-Meier Adjustment): Mean=0.1448, Std. Dev.=0.09101, n=11, 36.36% NDs.
Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8406, critical = 0.792. Kappa = 1.776 (c=7, w=7, 1 of 3,
event alpha = 0.05132). Report alpha = 0.001075.

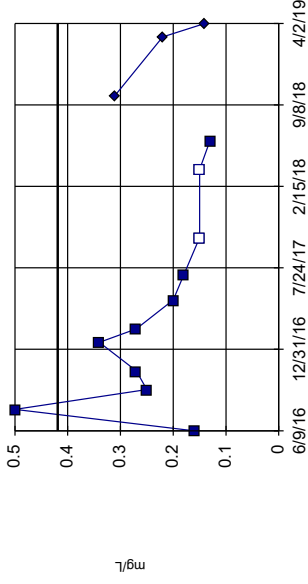
Constituent: Fluoride Analysis Run 5/3/2019 2:18 PM View: Intrawell PL
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Santitas™ v.9.6.05 Santitas software licensed to ACC, UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



■ YGWC-285 background
◆ YGWC-285 compliance
Limit = 0.4188

Background Data Summary (after Kaplan-Meier Adjustment): Mean=0.237, Std. Dev.=0.1024, n=11, 18.18% NDs.
Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.92, critical = 0.792. Kappa = 1.776 (c=7, w=7, 1 of 3,
event alpha = 0.05132). Report alpha = 0.001075.

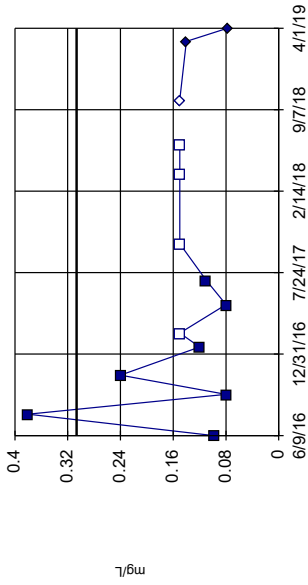
Constituent: Fluoride Analysis Run 5/3/2019 2:18 PM View: Intrawell PL
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Santitas™ v.9.6.05 Santitas software licensed to ACC, UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



■ YGWC-291 background
◆ YGWC-291 compliance
Limit = 0.3

Background Data Summary (after Kaplan-Meier Adjustment): Mean=0.1448, Std. Dev.=0.09101, n=11, 36.36% NDs.
Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8406, critical = 0.792. Kappa = 1.776 (c=7, w=7, 1 of 3,
event alpha = 0.05132). Report alpha = 0.001075.

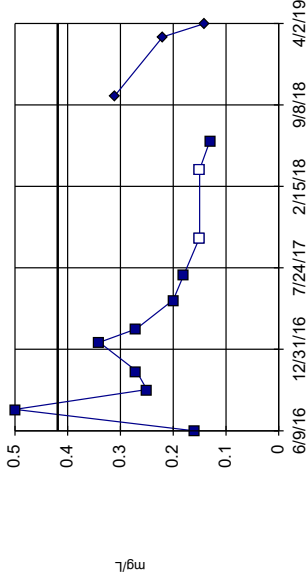
Constituent: Fluoride Analysis Run 5/3/2019 2:18 PM View: Intrawell PL
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Santitas™ v.9.6.05 Santitas software licensed to ACC, UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



■ YGWC-266 background
◆ YGWC-266 compliance
Limit = 6.19
Limit = 5.79

Background Data Summary (after Kaplan-Meier Adjustment): Mean=0.237, Std. Dev.=0.1024, n=11, 18.18% NDs.
Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.92, critical = 0.792. Kappa = 1.776 (c=7, w=7, 1 of 3,
event alpha = 0.05132). Report alpha = 0.001075.

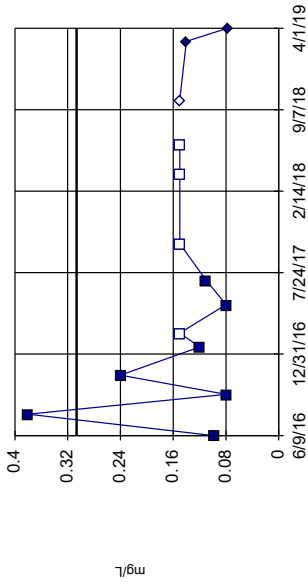
Constituent: Fluoride Analysis Run 5/3/2019 2:18 PM View: Intrawell PL
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Santitas™ v.9.6.05 Santitas software licensed to ACC, UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



■ YGWC-281 background
◆ YGWC-281 compliance
Limit = 0.3065

Background Data Summary (after Kaplan-Meier Adjustment): Mean=0.1448, Std. Dev.=0.09101, n=11, 36.36% NDs.
Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8406, critical = 0.792. Kappa = 1.776 (c=7, w=7, 1 of 3,
event alpha = 0.05132). Report alpha = 0.001075.

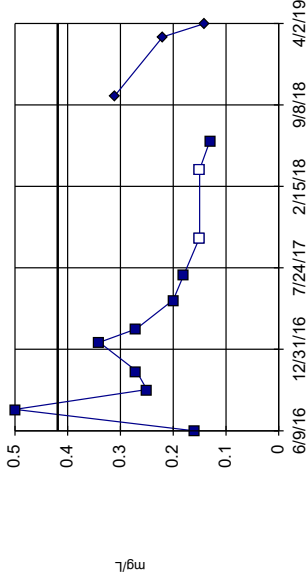
Constituent: Fluoride Analysis Run 5/3/2019 2:18 PM View: Intrawell PL
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Santitas™ v.9.6.05 Santitas software licensed to ACC, UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



■ YGWC-266 background
◆ YGWC-266 compliance
Limit = 6.19
Limit = 5.79

Background Data Summary (after Kaplan-Meier Adjustment): Mean=0.237, Std. Dev.=0.1024, n=11, 18.18% NDs.
Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.92, critical = 0.792. Kappa = 1.776 (c=7, w=7, 1 of 3,
event alpha = 0.05132). Report alpha = 0.001075.

Constituent: Fluoride Analysis Run 5/3/2019 2:18 PM View: Intrawell PL
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

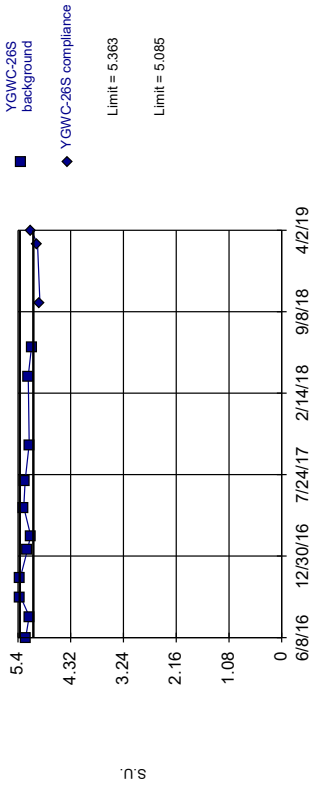
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 11 background values. 54.55% NDs. Well-constituent pair annual alpha = 0.005605. Individual comparison alpha = 0.002806 (1 of 3).

Constituent: Fluoride Analysis Run 5/3/2019 2:18 PM View: Intrawell PL
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Constituent: pH Analysis Run 5/3/2019 2:18 PM View: Intrawell PL
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Within Limits

Prediction Limit
Intrawell Parametric

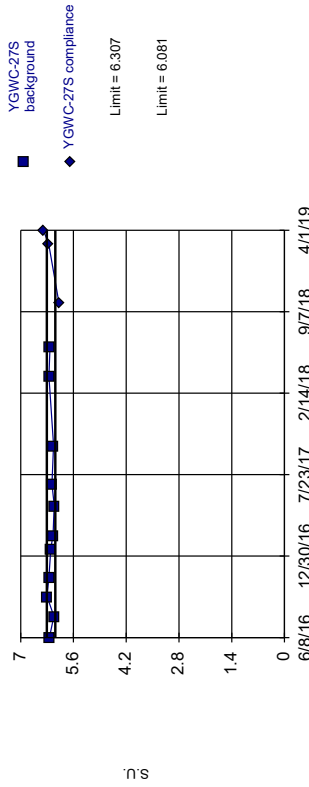


Background Data Summary: Mean=5.224, Std. Dev.=0.07827, n=11, Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9263, critical = 0.792. Kappa = 1.776 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: pH Analysis Run 5/3/2019 2:18 PM View: Intrawell PL
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Exceeds Limits

Prediction Limit
Intrawell Parametric

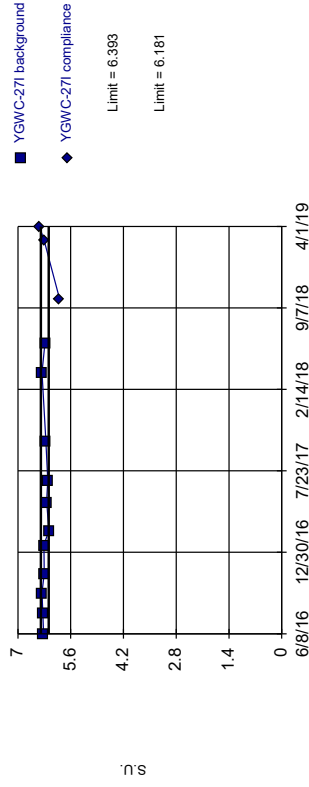


Background Data Summary: Mean=6.194, Std. Dev.=0.0636, n=11, Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9342, critical = 0.792. Kappa = 1.776 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: pH Analysis Run 5/3/2019 2:18 PM View: Intrawell PL
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Exceeds Limits

Prediction Limit
Intrawell Parametric

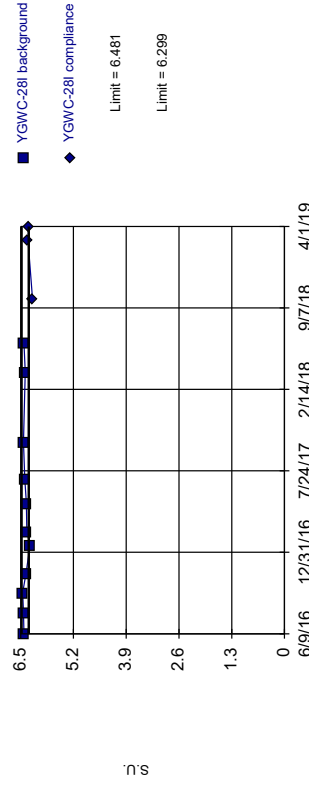


Background Data Summary: Mean=6.287, Std. Dev.=0.05968, n=11, Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9485, critical = 0.792. Kappa = 1.776 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: pH Analysis Run 5/3/2019 2:18 PM View: Intrawell PL
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Within Limits

Prediction Limit
Intrawell Parametric

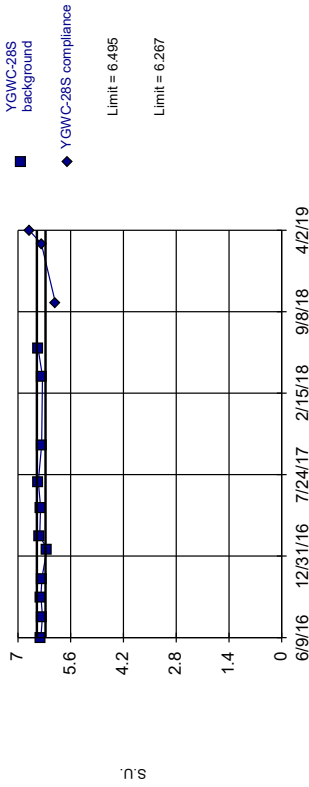


Background Data Summary: Mean=6.39, Std. Dev.=0.05099, n=11, Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8932, critical = 0.792. Kappa = 1.776 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: pH Analysis Run 5/3/2019 2:18 PM View: Intrawell PL
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Exceeds Limits

Prediction Limit
Intrawell Parametric

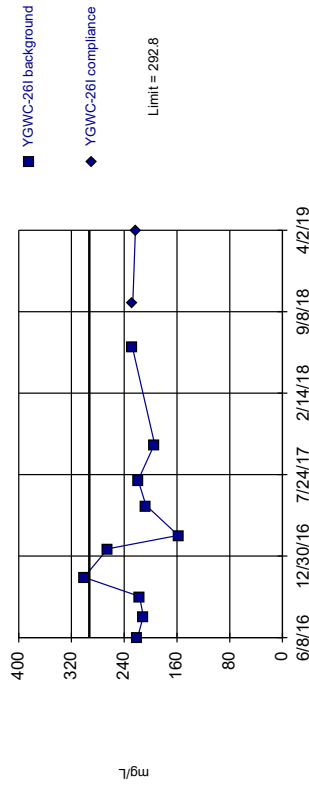


Background Data Summary: Mean=6.381, Std. Dev.=0.06441, n=11, Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9054, critical = 0.792. Kappa = 1.776 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: pH Analysis Run 5/3/2019 2:18 PM View: Intrawell PL
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Within Limit

Prediction Limit
Intrawell Parametric

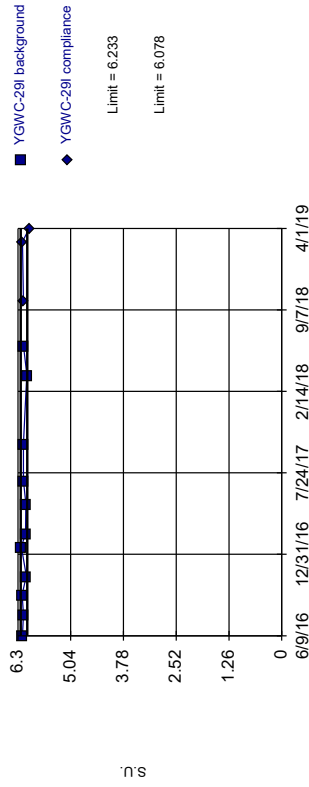


Background Data Summary: Mean=222, Std. Dev.=38.57, n=10, Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.922, critical = 0.781. Kappa = 1.836 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: Total Dissolved Solids Analysis Run 5/3/2019 2:18 PM View: Intrawell PL
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Exceeds Limits

Prediction Limit
Intrawell Parametric

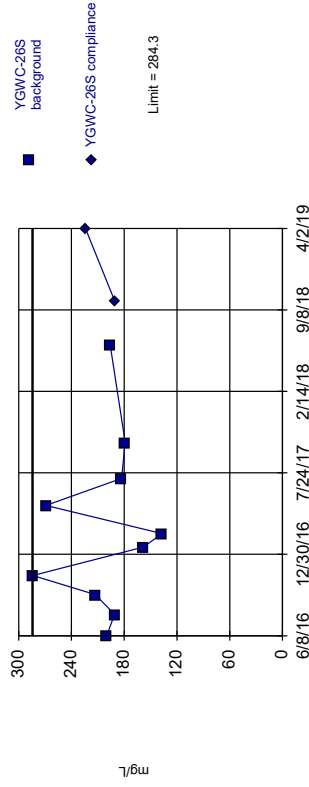


Background Data Summary: Mean=6.155, Std. Dev.=0.04344, n=11, Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9119, critical = 0.792. Kappa = 1.776 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: pH Analysis Run 5/3/2019 2:18 PM View: Intrawell PL
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Within Limit

Prediction Limit
Intrawell Parametric

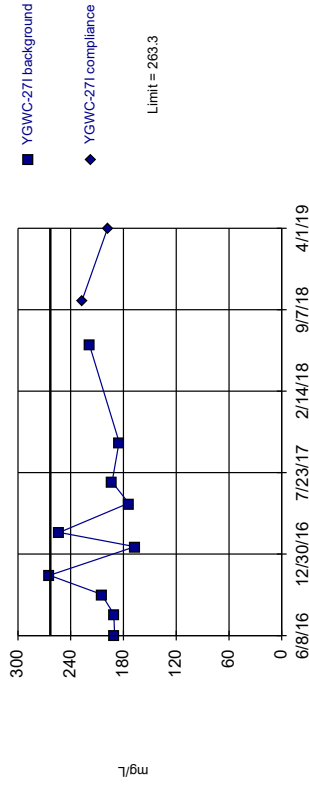


Background Data Summary: Mean=201, Std. Dev.=45.38, n=10, Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9181, critical = 0.781. Kappa = 1.836 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: Total Dissolved Solids Analysis Run 5/3/2019 2:18 PM View: Intrawell PL
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Within Limit

Prediction Limit
Intrawell Parametric

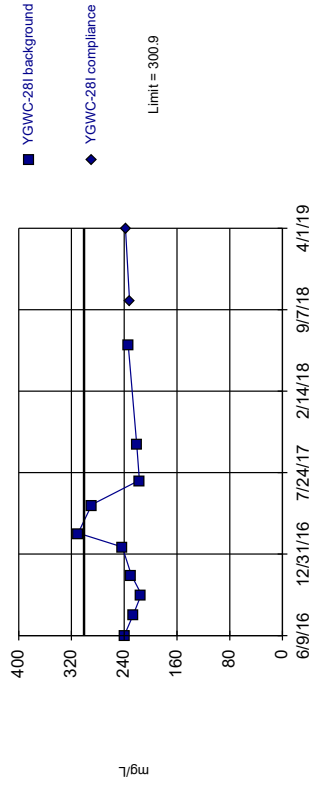


Background Data Summary: Mean=204.1, Std. Dev.=32.22, n=10, Normality test: Shapiro.Wilk.@alpha = 0.01, calculated = 0.8837, critical = 0.781. Kappa = 1.836 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: Total Dissolved Solids Analysis Run 5/3/2019 2:19 PM View: Intrawell PL
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Within Limit

Prediction Limit
Intrawell Parametric

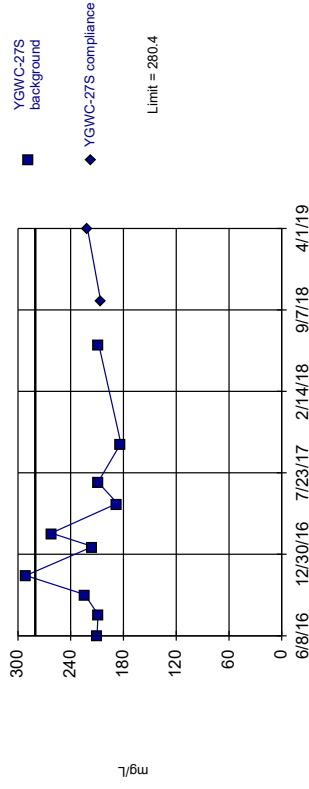


Background Data Summary: Mean=242.3, Std. Dev.=31.93, n=10, Normality test: Shapiro.Wilk.@alpha = 0.01, calculated = 0.795, critical = 0.781. Kappa = 1.836 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: Total Dissolved Solids Analysis Run 5/3/2019 2:19 PM View: Intrawell PL
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Within Limit

Prediction Limit
Intrawell Parametric

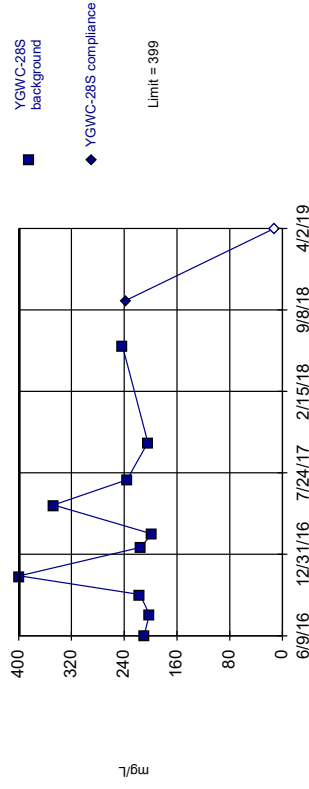


Background Data Summary: Mean=219.8, Std. Dev.=32.98, n=10, Normality test: Shapiro.Wilk.@alpha = 0.01, calculated = 0.8434, critical = 0.781. Kappa = 1.836 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: Total Dissolved Solids Analysis Run 5/3/2019 2:19 PM View: Intrawell PL
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Within Limit

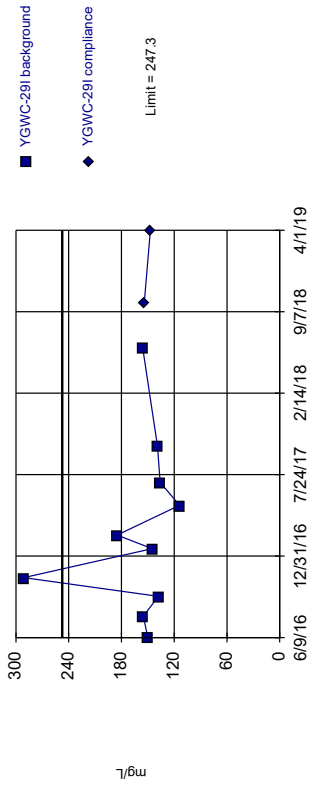
Prediction Limit
Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 10 background values. Well-constituent pair annual alpha = 0.006868. Individual comparison alpha = 0.00344 (1 of 3).

Constituent: Total Dissolved Solids Analysis Run 5/3/2019 2:19 PM View: Intrawell PL
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Within Limit Prediction Limit
Intrawell Parametric



Background Data Summary (based on natural log transformation): Mean=5.048, Std. Dev.=0.2517, n=10. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8109, critical = 0.781. Kappa = 1.836 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: Total Dissolved Solids Analysis Run 5/3/2019 2:19 PM View: Intrawell PL
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 5/3/2019 2:20 PM View: Intrawell PL

Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWC-26I	YGWC-26I
6/8/2016	0.094 (J)	
8/1/2016	0.08 (J)	
9/20/2016	0.05 (J)	
11/7/2016	<0.3 (*)	
1/18/2017	0.11 (J)	
2/21/2017	<0.3 (*)	
5/8/2017	0.08 (J)	
7/10/2017	<0.3 (*)	
10/10/2017	<0.3	
3/30/2018	<0.3	
6/13/2018	0.088 (J)	
10/2/2018		<0.3
2/27/2019		<0.3
4/2/2019		0.071 (J)

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 5/3/2019 2:20 PM View: Intrawell PL

Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWC-26S	YGWC-26S
6/8/2016	<0.3	
8/1/2016	0.24 (J)	
9/20/2016	0.03 (J)	
11/7/2016	0.44	
1/18/2017	<0.3 (*)	
2/21/2017	<0.3 (*)	
5/3/2017	0.16 (J)	
7/10/2017	<0.3 (*)	
10/10/2017	<0.3	
3/30/2018	0.35	
6/13/2018	0.044 (J)	
10/2/2018		<0.3
2/27/2019		<0.3
4/2/2019		<0.3

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 5/3/2019 2:20 PM View: IntraWell PL

Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWC-27I	YGWC-27I
6/8/2016	0.086 (J)	
8/1/2016	0.14 (J)	
9/20/2016	<0.3	
11/7/2016	<0.3 (*)	
1/18/2017	<0.3 (*)	
2/23/2017	<0.3 (*)	
5/8/2017	0.07 (J)	
6/30/2017	<0.3 (*)	
10/9/2017	<0.3 (*)	
3/29/2018	<0.3	
6/13/2018	<0.3	
10/2/2018		<0.3
2/27/2019		<0.3
4/1/2019		0.034 (J)

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 5/3/2019 2:20 PM View: Intrawell PL

Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWC-27S	YGWC-27S
6/8/2016	0.12 (J)	
8/1/2016	0.22 (J)	
9/20/2016	0.32	
11/7/2016	<0.3 (*)	
1/19/2017	0.25 (J)	
2/22/2017	0.21 (J)	
5/8/2017	0.19 (J)	
6/30/2017	0.2 (J)	
10/6/2017	<0.3 (*)	
3/29/2018	0.49	
6/12/2018	0.037 (J)	
10/2/2018		<0.3
2/27/2019		0.14 (J)
4/1/2019		0.088 (J)

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 5/3/2019 2:20 PM View: Intrawell PL

Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWC-28I	YGWC-28I
6/9/2016	0.098 (J)	
8/2/2016	0.38	
9/21/2016	0.08 (J)	
11/8/2016	0.24 (J)	
1/18/2017	0.12 (J)	
2/22/2017	<0.3 (*)	
5/5/2017	0.08 (J)	
7/5/2017	0.11 (J)	
10/5/2017	<0.3 (*)	
3/30/2018	<0.3	
6/12/2018	<0.3	
10/3/2018		<0.3
2/27/2019		0.14 (J)
4/1/2019		0.078 (J)

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 5/3/2019 2:20 PM View: Intrawell PL

Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWC-28S	YGWC-28S
6/9/2016	0.16 (J)	
8/2/2016	0.5	
9/21/2016	0.25 (J)	
11/7/2016	0.27 (J)	
1/18/2017	0.34	
2/21/2017	0.27 (J)	
5/5/2017	0.2 (J)	
7/7/2017	0.18 (J)	
10/9/2017	<0.3 (*)	
3/30/2018	<0.3	
6/12/2018	0.13 (J)	
10/3/2018		0.31
2/27/2019		0.22 (J)
4/2/2019		0.14 (J)

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 5/3/2019 2:20 PM View: IntraWell PL

Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWC-29I	YGWC-29I
6/9/2016	0.085 (J)	
8/2/2016	0.09 (J)	
9/21/2016	0.09 (J)	
11/7/2016	<0.3 (*)	
1/19/2017	<0.3 (*)	
2/22/2017	<0.3 (*)	
5/8/2017	0.06 (J)	
7/5/2017	0.08 (J)	
10/5/2017	<0.3 (*)	
3/29/2018	<0.3	
6/11/2018	<0.3	
10/2/2018		<0.3
2/27/2019		0.15 (J)
4/1/2019		0.059 (J)

Prediction Limit

Constituent: pH (S.U.) Analysis Run 5/3/2019 2:20 PM View: IntraWell PL

Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWC-26I	YGWC-26I
6/8/2016	5.85	
8/1/2016	5.83	
9/20/2016	5.89	
11/7/2016	5.91	
1/18/2017	5.84	
2/21/2017	5.79	
5/8/2017	5.84	
7/10/2017	5.92	
10/10/2017	5.84	
3/30/2018	6.19	
6/13/2018	5.82	
10/2/2018		5.81
2/27/2019		5.79
4/2/2019		5.87

Prediction Limit

Constituent: pH (S.U.) Analysis Run 5/3/2019 2:20 PM View: IntraWell PL

Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWC-26S	YGWC-26S
6/8/2016	5.24	
8/1/2016	5.17	
9/20/2016	5.35	
11/7/2016	5.35	
1/18/2017	5.2	
2/21/2017	5.14	
5/3/2017	5.28	
7/10/2017	5.25	
10/10/2017	5.17	
3/30/2018	5.19	
6/13/2018	5.12	
10/2/2018		4.95
2/27/2019		5
4/2/2019		5.13

Prediction Limit

Constituent: pH (S.U.) Analysis Run 5/3/2019 2:20 PM View: IntraWell PL

Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWC-27I	YGWC-27I
6/8/2016	6.32	
8/1/2016	6.34	
9/20/2016	6.36	
11/7/2016	6.3	
1/18/2017	6.31	
2/23/2017	6.18	
5/8/2017	6.24	
6/30/2017	6.21	
10/9/2017	6.26	
3/29/2018	6.36	
6/13/2018	6.28	
10/2/2018		5.9
2/27/2019		6.31
4/1/2019		6.43

Prediction Limit

Constituent: pH (S.U.) Analysis Run 5/3/2019 2:20 PM View: IntraWell PL

Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWC-27S	YGWC-27S
6/8/2016	6.24	
8/1/2016	6.12	
9/20/2016	6.3	
11/7/2016	6.25	
1/19/2017	6.2	
2/22/2017	6.14	
5/8/2017	6.11	
6/30/2017	6.17	
10/6/2017	6.13	
3/29/2018	6.25	
6/12/2018	6.22	
10/2/2018		5.99
2/27/2019		6.26
4/1/2019		6.4

Prediction Limit

Constituent: pH (S.U.) Analysis Run 5/3/2019 2:20 PM View: IntraWell PL

Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWC-28I	YGWC-28I
6/9/2016	6.42	
8/2/2016	6.43	
9/21/2016	6.45	
11/8/2016	6.37	
1/18/2017	6.27	
2/22/2017	6.35	
5/5/2017	6.36	
7/5/2017	6.4	
10/5/2017	6.43	
3/30/2018	6.39	
6/12/2018	6.42	
10/3/2018		6.21
2/27/2019		6.32
4/1/2019		6.3

Prediction Limit

Constituent: pH (S.U.) Analysis Run 5/3/2019 2:20 PM View: IntraWell PL
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWC-28S	YGWC-28S
6/9/2016	6.39	
8/2/2016	6.35	
9/21/2016	6.39	
11/7/2016	6.36	
1/18/2017	6.23	
2/21/2017	6.42	
5/5/2017	6.4	
7/7/2017	6.46	
10/9/2017	6.37	
3/30/2018	6.35	
6/12/2018	6.47	
10/3/2018		6.01
2/27/2019		6.38
4/2/2019		6.7

Prediction Limit

Constituent: pH (S.U.) Analysis Run 5/3/2019 2:20 PM View: IntraWell PL

Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWC-29I	YGWC-29I
6/9/2016	6.19	
8/2/2016	6.17	
9/21/2016	6.2	
11/7/2016	6.1	
1/19/2017	6.22	
2/22/2017	6.12	
5/8/2017	6.11	
7/5/2017	6.17	
10/5/2017	6.17	
3/29/2018	6.09	
6/11/2018	6.17	
10/2/2018		6.17
2/27/2019		6.19
4/1/2019		6.03

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 5/3/2019 2:20 PM View: IntraWell PL
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWC-26I	YGWC-26I
6/8/2016	220	
8/1/2016	211	
9/20/2016	217	
11/7/2016	301	
1/18/2017	265 (D)	
2/21/2017	158	
5/8/2017	207	
7/10/2017	219	
10/10/2017	194	
6/13/2018	228	
10/2/2018		227
4/2/2019		223

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 5/3/2019 2:20 PM View: IntraWell PL
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWC-26S	YGWC-26S
6/8/2016	200	
8/1/2016	191	
9/20/2016	213	
11/7/2016	284	
1/18/2017	158 (D)	
2/21/2017	137	
5/3/2017	269	
7/10/2017	183	
10/10/2017	179	
6/13/2018	196	
10/2/2018		191
4/2/2019		224

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 5/3/2019 2:20 PM View: IntraWell PL
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWC-27I	YGWC-27I
6/8/2016	190	
8/1/2016	191	
9/20/2016	205	
11/7/2016	264	
1/18/2017	167 (D)	
2/23/2017	253	
5/8/2017	174	
6/30/2017	193	
10/9/2017	185	
6/13/2018	219	
10/2/2018		227
4/1/2019		198

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 5/3/2019 2:20 PM View: IntraWell PL
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWC-27S	YGWC-27S
6/8/2016	210	
8/1/2016	209	
9/20/2016	224	
11/7/2016	291	
1/19/2017	215 (D)	
2/22/2017	262	
5/8/2017	187	
6/30/2017	209	
10/6/2017	183	
6/12/2018	208	
10/2/2018		206
4/1/2019		221

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 5/3/2019 2:20 PM View: IntraWell PL
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWC-28I	YGWC-28I
6/9/2016	240	
8/2/2016	226	
9/21/2016	214	
11/8/2016	229	
1/18/2017	243 (D)	
2/22/2017	310	
5/5/2017	289	
7/5/2017	217	
10/5/2017	221	
6/12/2018	234	
10/3/2018		232
4/1/2019		238

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 5/3/2019 2:20 PM View: IntraWell PL
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWC-28S	YGWC-28S
6/9/2016	210	
8/2/2016	202	
9/21/2016	216	
11/7/2016	399	
1/18/2017	215 (D)	
2/21/2017	198	
5/5/2017	347	
7/7/2017	236	
10/9/2017	204	
6/12/2018	243	
10/3/2018		237
4/2/2019		<25

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 5/3/2019 2:20 PM View: IntraWell PL
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWC-29I	YGWC-29I
6/9/2016	150	
8/2/2016	155	
9/21/2016	138	
11/7/2016	291	
1/19/2017	145 (D)	
2/22/2017	185	
5/8/2017	114	
7/5/2017	136	
10/5/2017	139	
6/11/2018	156	
10/2/2018		154
4/1/2019		147

Confidence Interval

Plant Yates Client: Southern Company Data: Yates Ash Pond 2 Printed 6/27/2019, 11:00 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Arsenic (mg/L)	YGWC-26I	0.0025	0.00065	0.01	No	13	100	No	0.01	NP (NDs)
Arsenic (mg/L)	YGWC-26S	0.0025	0.00065	0.01	No	13	100	No	0.01	NP (NDs)
Arsenic (mg/L)	YGWC-27I	0.0025	0.00069	0.01	No	13	61.54	No	0.01	NP (normality)
Arsenic (mg/L)	YGWC-27S	0.0025	0.00065	0.01	No	13	100	No	0.01	NP (NDs)
Arsenic (mg/L)	YGWC-28I	0.0025	0.00065	0.01	No	13	100	No	0.01	NP (NDs)
Arsenic (mg/L)	YGWC-28S	0.0025	0.0007	0.01	No	13	61.54	No	0.01	NP (normality)
Arsenic (mg/L)	YGWC-29I	0.0025	0.00065	0.01	No	13	100	No	0.01	NP (NDs)
Barium (mg/L)	YGWC-26I	0.06774	0.06427	2	No	13	0	No	0.01	Param.
Barium (mg/L)	YGWC-26S	0.02914	0.02669	2	No	13	0	No	0.01	Param.
Barium (mg/L)	YGWC-27I	0.081	0.063	2	No	13	0	No	0.01	NP (normality)
Barium (mg/L)	YGWC-27S	0.1086	0.09731	2	No	13	0	No	0.01	Param.
Barium (mg/L)	YGWC-28I	0.092	0.086	2	No	13	0	No	0.01	NP (normality)
Barium (mg/L)	YGWC-28S	0.2196	0.207	2	No	13	0	No	0.01	Param.
Barium (mg/L)	YGWC-29I	0.07548	0.06494	2	No	13	0	No	0.01	Param.
Beryllium (mg/L)	YGWC-26I	0.0015	0.0015	0.004	No	11	100	No	0.006	NP (NDs)
Beryllium (mg/L)	YGWC-26S	0.00125	0.0001	0.004	No	11	18.18	No	0.006	NP (normality)
Beryllium (mg/L)	YGWC-27I	0.0015	0.0001	0.004	No	11	27.27	No	0.006	NP (normality)
Beryllium (mg/L)	YGWC-27S	0.0015	0.0015	0.004	No	11	100	No	0.006	NP (NDs)
Beryllium (mg/L)	YGWC-28I	0.0015	0.0015	0.004	No	11	100	No	0.006	NP (NDs)
Beryllium (mg/L)	YGWC-28S	0.0015	0.0015	0.004	No	11	100	No	0.006	NP (NDs)
Beryllium (mg/L)	YGWC-29I	0.0015	0.0015	0.004	No	11	100	No	0.006	NP (NDs)
Cadmium (mg/L)	YGWC-26I	0.0005	0.0005	0.005	No	11	100	No	0.006	NP (NDs)
Cadmium (mg/L)	YGWC-26S	0.0005	0.0005	0.005	No	11	100	No	0.006	NP (NDs)
Cadmium (mg/L)	YGWC-27I	0.0005	0.0005	0.005	No	11	100	No	0.006	NP (NDs)
Cadmium (mg/L)	YGWC-27S	0.0005	0.0005	0.005	No	11	100	No	0.006	NP (NDs)
Cadmium (mg/L)	YGWC-28I	0.0005	0.00009	0.005	No	11	9.091	No	0.006	NP (normality)
Cadmium (mg/L)	YGWC-28S	0.0005	0.0005	0.005	No	11	100	No	0.006	NP (NDs)
Cadmium (mg/L)	YGWC-29I	0.0005	0.0001	0.005	No	11	18.18	No	0.006	NP (normality)
Chromium (mg/L)	YGWC-26I	0.005	0.0008	0.1	No	11	72.73	No	0.006	NP (normality)
Chromium (mg/L)	YGWC-26S	0.009221	0.00141	0.1	No	11	27.27	No	0.01	Param.
Chromium (mg/L)	YGWC-27I	0.005	0.005	0.1	No	11	100	No	0.006	NP (NDs)
Chromium (mg/L)	YGWC-27S	0.005	0.005	0.1	No	11	100	No	0.006	NP (NDs)
Chromium (mg/L)	YGWC-28I	0.005	0.005	0.1	No	11	90.91	No	0.006	NP (NDs)
Chromium (mg/L)	YGWC-28I	0.005	0.00125	0.1	No	11	90.91	No	0.006	NP (NDs)
Chromium (mg/L)	YGWC-28S	0.005	0.00125	0.1	No	11	90.91	No	0.006	NP (NDs)
Chromium (mg/L)	YGWC-29I	0.005	0.00125	0.1	No	11	90.91	No	0.006	NP (NDs)
Chromium (mg/L)	YGWC-26I	0.005	0.00125	0.035	No	13	100	No	0.01	NP (NDs)
Cobalt (mg/L)	YGWC-26S	0.003003	0.001921	0.035	No	13	7.692	ln(x)	0.01	Param.
Cobalt (mg/L)	YGWC-27I	0.078	0.0016	0.035	No	13	0	No	0.01	NP (normality)
Cobalt (mg/L)	YGWC-27S	0.0026	0.0023	0.035	No	13	7.692	No	0.01	NP (normality)
Cobalt (mg/L)	YGWC-28I	0.005	0.00042	0.035	No	13	92.31	No	0.01	NP (NDs)
Cobalt (mg/L)	YGWC-28S	0.0013	0.00085	0.035	No	13	7.692	No	0.01	NP (normality)
Cobalt (mg/L)	YGWC-29I	0.005	0.00052	0.035	No	13	69.23	No	0.01	NP (normality)
Combined Radium 226 + 228 (pCi/L)	YGWC-26I	1.387	0.4078	5	No	13	7.692	ln(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	YGWC-26S	0.9156	0.5674	5	No	13	7.692	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	YGWC-27I	4.334	2.675	5	No	13	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	YGWC-27S	1.032	0.5815	5	No	13	7.692	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	YGWC-28I	0.7691	0.3211	5	No	13	7.692	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	YGWC-28S	0.8679	0.409	5	No	13	7.692	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	YGWC-29I	1.205	0.6015	5	No	13	7.692	No	0.01	Param.
Fluoride (mg/L)	YGWC-26I	0.15	0.071	4	No	14	50	No	0.01	NP (normality)

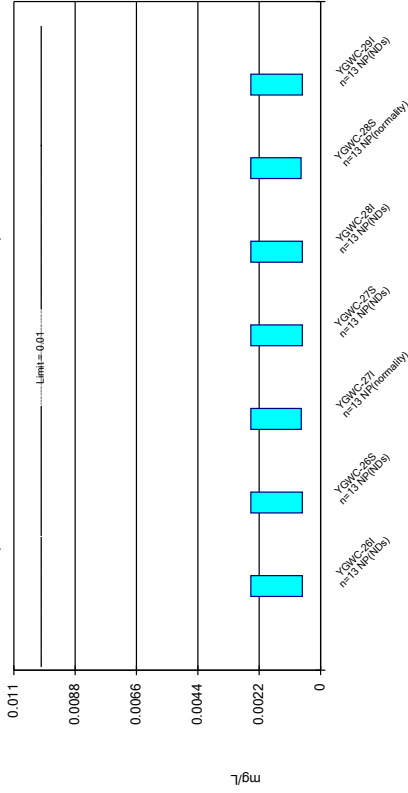
Confidence Interval

Plant Yates Client: Southern Company Data: Yates Ash Pond 2 Printed 6/27/2019, 11:00 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Fluoride (mg/L)	YGWC-26S	0.24	0.1	4	No	14	57.14	No	0.01	NP (Cohens/xfrm)
Fluoride (mg/L)	YGWC-27I	0.15	0.086	4	No	14	71.43	No	0.01	NP (normality)
Fluoride (mg/L)	YGWC-27S	0.3429	0.1487	4	No	14	21.43	No	0.01	Param.
Fluoride (mg/L)	YGWC-28I	0.24	0.08	4	No	14	35.71	No	0.01	NP (Cohens/xfrm)
Fluoride (mg/L)	YGWC-28S	0.2952	0.1638	4	No	14	14.29	sqrt(x)	0.01	Param.
Fluoride (mg/L)	YGWC-29I	0.15	0.08	4	No	14	50	No	0.01	NP (normality)
Lithium (mg/L)	YGWC-26I	0.006906	0.006324	0.04	No	13	0	No	0.01	Param.
Lithium (mg/L)	YGWC-26S	0.025	0.0025	0.04	No	13	100	No	0.01	NP (NDs)
Lithium (mg/L)	YGWC-27I	0.01138	0.008559	0.04	No	13	0	No	0.01	Param.
Lithium (mg/L)	YGWC-27S	0.025	0.0025	0.04	No	13	100	No	0.01	NP (NDs)
Lithium (mg/L)	YGWC-28I	0.007173	0.006642	0.04	No	13	0	No	0.01	Param.
Lithium (mg/L)	YGWC-28S	0.025	0.0025	0.04	No	12	100	No	0.01	NP (NDs)
Lithium (mg/L)	YGWC-29I	0.006875	0.005494	0.04	No	13	0	No	0.01	Param.
Mercury (mg/L)	YGWC-26I	0.00025	0.000051	0.002	No	11	81.82	No	0.006	NP (NDs)
Mercury (mg/L)	YGWC-26S	0.00025	0.000066	0.002	No	11	81.82	No	0.006	NP (NDs)
Mercury (mg/L)	YGWC-27I	0.00025	0.000054	0.002	No	11	81.82	No	0.006	NP (NDs)
Mercury (mg/L)	YGWC-27S	0.00025	0.000049	0.002	No	11	81.82	No	0.006	NP (NDs)
Mercury (mg/L)	YGWC-28I	0.00025	0.0001	0.002	No	11	90.91	No	0.006	NP (NDs)
Mercury (mg/L)	YGWC-28S	0.00025	0.0001	0.002	No	11	90.91	No	0.006	NP (NDs)
Mercury (mg/L)	YGWC-29I	0.00025	0.000047	0.002	No	11	81.82	No	0.006	NP (NDs)
Molybdenum (mg/L)	YGWC-26I	0.0075	0.005	0.1	No	13	100	No	0.01	NP (NDs)
Molybdenum (mg/L)	YGWC-26S	0.0075	0.005	0.1	No	13	100	No	0.01	NP (NDs)
Molybdenum (mg/L)	YGWC-27I	0.005	0.0018	0.1	No	13	76.92	No	0.01	NP (NDs)
Molybdenum (mg/L)	YGWC-27S	0.0075	0.005	0.1	No	13	100	No	0.01	NP (NDs)
Molybdenum (mg/L)	YGWC-28I	0.005	0.0014	0.1	No	13	69.23	No	0.01	NP (normality)
Molybdenum (mg/L)	YGWC-28S	0.0075	0.0007	0.1	No	13	84.62	No	0.01	NP (NDs)
Molybdenum (mg/L)	YGWC-29I	0.0075	0.005	0.1	No	13	100	No	0.01	NP (NDs)
Selenium (mg/L)	YGWC-26I	0.005	0.0017	0.05	No	11	18.18	No	0.006	NP (normality)
Selenium (mg/L)	YGWC-26S	0.005	0.0012	0.05	No	11	63.64	No	0.006	NP (normality)
Selenium (mg/L)	YGWC-27I	0.005	0.005	0.05	No	11	100	No	0.006	NP (NDs)
Selenium (mg/L)	YGWC-27S	0.005	0.005	0.05	No	11	100	No	0.006	NP (NDs)
Selenium (mg/L)	YGWC-28I	0.005	0.0012	0.05	No	11	90.91	No	0.006	NP (NDs)
Selenium (mg/L)	YGWC-28S	0.005	0.001	0.05	No	11	90.91	No	0.006	NP (NDs)
Selenium (mg/L)	YGWC-29I	0.005	0.005	0.05	No	11	100	No	0.006	NP (NDs)

Non-Parametric Confidence Interval

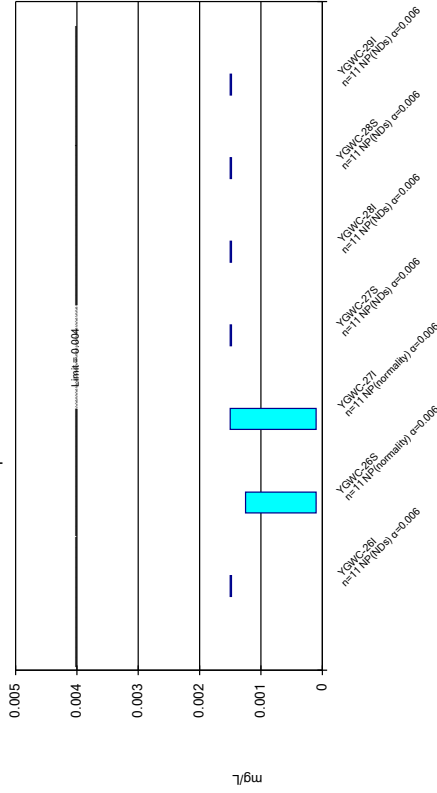
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Arsenic Analysis Run 6/27/2019 10:54 AM View: Maximum Values in Background
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Non-Parametric Confidence Interval

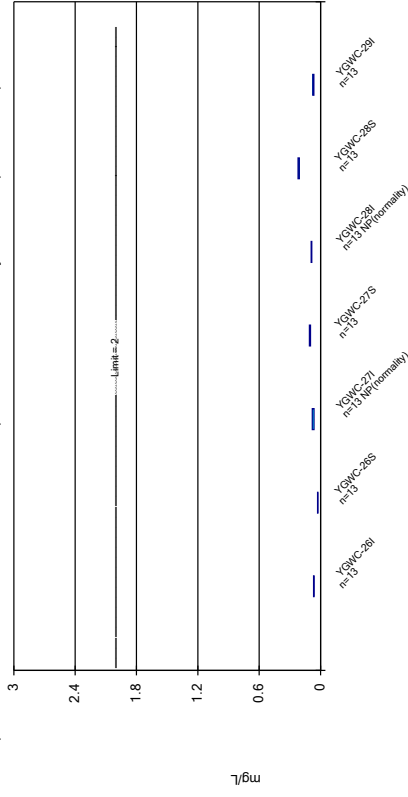
Compliance Limit is not exceeded.



Constituent: Beryllium Analysis Run 6/27/2019 10:54 AM View: Maximum Values in Background
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Parametric and Non-Parametric (NP) Confidence Interval

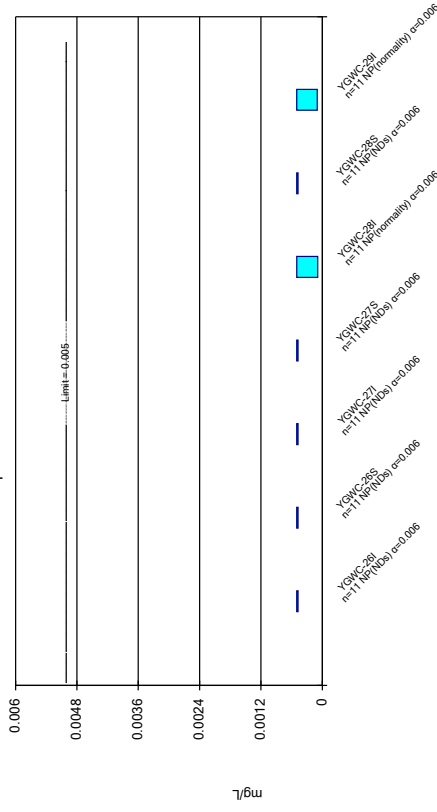
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Barium Analysis Run 6/27/2019 10:54 AM View: Maximum Values in Background
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.



Constituent: Cadmium Analysis Run 6/27/2019 10:54 AM View: Maximum Values in Background
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Confidence Interval

Constituent: Arsenic (mg/L) Analysis Run 6/27/2019 11:00 AM View: Maximum Values in Background

Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWC-26I	YGWC-26S	YGWC-27I	YGWC-27S	YGWC-28I	YGWC-28S	YGWC-29I
6/8/2016	<0.0013	<0.0013	0.0011 (J)	<0.0013			
6/9/2016					<0.0013	0.00094 (J)	<0.0013
8/1/2016	<0.005	<0.005	0.0009 (J)	<0.005			
8/2/2016					<0.005	<0.005	<0.005
9/20/2016	<0.005	<0.005	<0.005	<0.005			
9/21/2016					<0.005	<0.005	<0.005
11/7/2016	<0.005	<0.005	<0.005	<0.005		<0.005	<0.005
11/8/2016					<0.005		
1/18/2017	<0.005	<0.005	<0.005		<0.005	<0.005	
1/19/2017				<0.005			<0.005
2/21/2017	<0.005	<0.005				<0.005	
2/22/2017				<0.005	<0.005		<0.005
2/23/2017			<0.005				
5/3/2017		<0.005					
5/5/2017					<0.005	<0.005	
5/8/2017	<0.005		0.0006 (J)	<0.005			<0.005
6/30/2017			<0.005 (*)	<0.005 (*)			
7/5/2017					<0.005		<0.005
7/7/2017						0.0007 (J)	
7/10/2017	<0.005	<0.005					
3/29/2018			0.0006 (J)	<0.005			<0.005
3/30/2018	<0.005	<0.005			<0.005	0.00069 (J)	
6/11/2018							<0.005
6/12/2018				<0.005	<0.005	0.00075 (J)	
6/13/2018	<0.005	<0.005	<0.005				
10/2/2018	<0.005	<0.005	<0.005	<0.005			<0.005
10/3/2018					<0.005	0.0007 (J)	
2/27/2019	<0.005	<0.005	0.00069 (J)	<0.005	<0.005	<0.005	<0.005
4/1/2019			<0.005	<0.005	<0.005		<0.005
4/2/2019	<0.005	<0.005				<0.005	
Mean	0.002358	0.002358	0.001838	0.002358	0.002358	0.001829	0.002358
Std. Dev.	0.0005131	0.0005131	0.000881	0.0005131	0.0005131	0.0008852	0.0005131
Upper Lim.	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025
Lower Lim.	0.00065	0.00065	0.00069	0.00065	0.00065	0.0007	0.00065

Confidence Interval

Constituent: Barium (mg/L) Analysis Run 6/27/2019 11:00 AM View: Maximum Values in Background

Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWC-26I	YGWC-26S	YGWC-27I	YGWC-27S	YGWC-28I	YGWC-28S	YGWC-29I
6/8/2016	0.068	0.029	0.081	0.12			
6/9/2016					0.1	0.22	0.082
8/1/2016	0.0688	0.0316	0.0838	0.115			
8/2/2016					0.0836	0.212	0.0781
9/20/2016	0.0663	0.0298	0.0687	0.108			
9/21/2016					0.0889	0.228	0.0782
11/7/2016	0.065	0.0289	0.0639	0.102		0.214	0.0712
11/8/2016					0.0886		
1/18/2017	0.0625	0.0278	0.0645		0.0862	0.213	
1/19/2017				0.102			0.0689
2/21/2017	0.0655	0.0282				0.222	
2/22/2017				0.106	0.0915		0.0741
2/23/2017			0.0728				
5/3/2017		0.0282					
5/5/2017					0.0891	0.219	
5/8/2017	0.0699		0.0721	0.102			0.0725
6/30/2017			0.0666	0.0963			
7/5/2017					0.0862		0.0677
7/7/2017						0.205	
7/10/2017	0.0691	0.0274					
3/29/2018			0.062	0.097			0.055
3/30/2018	0.063	0.026			0.087	0.2	
6/11/2018							0.068
6/12/2018				0.095	0.088	0.21	
6/13/2018	0.064	0.026	0.063				
10/2/2018	0.066	0.026	0.062	0.1			0.067
10/3/2018					0.092	0.22	
2/27/2019	0.065	0.027	0.066	0.096	0.086	0.21	0.067
4/1/2019			0.066	0.099	0.088		0.063
4/2/2019	0.065	0.027				0.2	
Mean	0.06601	0.02792	0.06865	0.1029	0.08885	0.2133	0.07021
Std. Dev.	0.002332	0.001643	0.007009	0.007577	0.004041	0.008469	0.00709
Upper Lim.	0.06774	0.02914	0.081	0.1086	0.092	0.2196	0.07548
Lower Lim.	0.06427	0.02669	0.063	0.09731	0.086	0.207	0.06494

Confidence Interval

Constituent: Beryllium (mg/L) Analysis Run 6/27/2019 11:00 AM View: Maximum Values in Background

Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWC-26I	YGWC-26S	YGWC-27I	YGWC-27S	YGWC-28I	YGWC-28S	YGWC-29I
6/8/2016	<0.0025	<0.0025	<0.0025	<0.0025			
6/9/2016					<0.0025	<0.0025	<0.0025
8/1/2016	<0.003	0.0002 (J)	<0.003	<0.003			
8/2/2016					<0.003	<0.003	<0.003
9/20/2016	<0.003	0.0001 (J)	9E-05 (J)	<0.003			
9/21/2016					<0.003	<0.003	<0.003
11/7/2016	<0.003	0.0001 (J)	0.0001 (J)	<0.003		<0.003	<0.003
11/8/2016					<0.003		
1/18/2017	<0.003	0.0002 (J)	0.0002 (J)		<0.003	<0.003	
1/19/2017				<0.003			<0.003
2/21/2017	<0.003	0.0002 (J)				<0.003	
2/22/2017				<0.003	<0.003		<0.003
2/23/2017			0.0002 (J)				
5/3/2017		0.0002 (J)					
5/5/2017					<0.003	<0.003	
5/8/2017	<0.003		0.0002 (J)	<0.003			<0.003
6/30/2017			0.0002 (J)	<0.003			
7/5/2017					<0.003		<0.003
7/7/2017						<0.003	
7/10/2017	<0.003	0.0002 (J)					
3/29/2018			<0.003	<0.003			<0.003
3/30/2018	<0.003	<0.003			<0.003	<0.003	
2/27/2019	<0.003	0.00018 (J)	0.00022 (J)	<0.003	<0.003	<0.003	<0.003
4/1/2019			0.00022 (J)	<0.003	<0.003		<0.003
4/2/2019	<0.003	0.00015 (J)				<0.003	
Mean	0.001477	0.0003891	0.0005164	0.001477	0.001477	0.001477	0.001477
Std. Dev.	7.538E-05	0.0004921	0.0005835	7.538E-05	7.538E-05	7.538E-05	7.538E-05
Upper Lim.	0.0015	0.00125	0.0015	0.0015	0.0015	0.0015	0.0015
Lower Lim.	0.0015	0.0001	0.0001	0.0015	0.0015	0.0015	0.0015

Confidence Interval

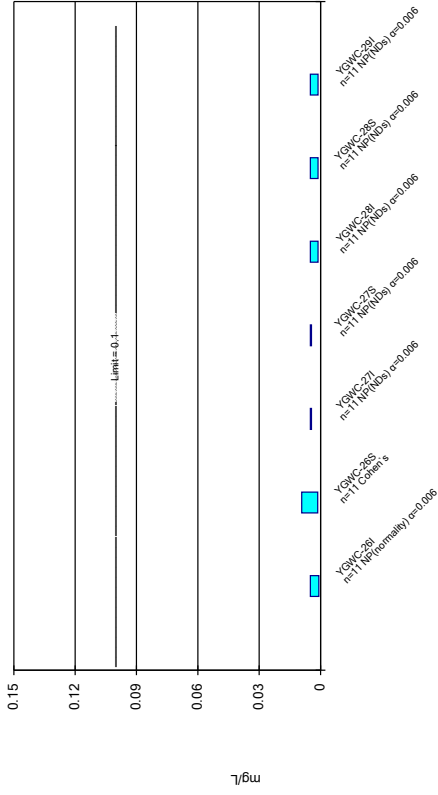
Constituent: Cadmium (mg/L) Analysis Run 6/27/2019 11:00 AM View: Maximum Values in Background

Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWC-26I	YGWC-26S	YGWC-27I	YGWC-27S	YGWC-28I	YGWC-28S	YGWC-29I
6/8/2016	<0.0025	<0.0025	<0.0025	<0.0025			
6/9/2016					0.00055 (J)	<0.0025	<0.0025
8/1/2016	<0.001	<0.001	<0.001	<0.001			
8/2/2016					0.0001 (J)	<0.001	0.0001 (J)
9/20/2016	<0.001	<0.001	<0.001	<0.001			
9/21/2016					0.0001 (J)	<0.001	0.0002 (J)
11/7/2016	<0.001	<0.001	<0.001	<0.001		<0.001	0.0002 (J)
11/8/2016					9E-05 (J)		
1/18/2017	<0.001	<0.001	<0.001		9E-05 (J)	<0.001	
1/19/2017				<0.001			0.0001 (J)
2/21/2017	<0.001	<0.001				<0.001	
2/22/2017				<0.001	0.0001 (J)		0.0001 (J)
2/23/2017			<0.001				
5/3/2017		<0.001					
5/5/2017					9E-05 (J)	<0.001	
5/8/2017	<0.001		<0.001	<0.001			0.0002 (J)
6/30/2017			<0.001	<0.001			
7/5/2017					0.0002 (J)		0.0002 (J)
7/7/2017						<0.001	
7/10/2017	<0.001	<0.001					
3/29/2018			<0.001	<0.001			<0.001
3/30/2018	<0.001	<0.001			<0.001	<0.001	
2/27/2019	<0.001	<0.001	<0.001	<0.001	0.00014 (J)	<0.001	0.00026 (J)
4/1/2019			<0.001	<0.001	0.00043 (J)		0.00022 (J)
4/2/2019	<0.001	<0.001				<0.001	
Mean	0.0005682	0.0005682	0.0005682	0.0005682	0.0002173	0.0005682	0.0003027
Std. Dev.	0.0002261	0.0002261	0.0002261	0.0002261	0.0001822	0.0002261	0.0003332
Upper Lim.	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005
Lower Lim.	0.0005	0.0005	0.0005	0.0005	9E-05	0.0005	0.0001

Parametric and Non-Parametric (NP) Confidence Interval

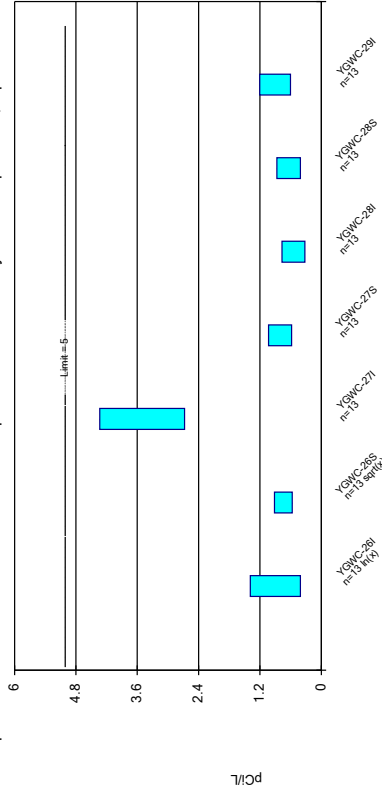
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Chromium Analysis Run 6/27/2019 10:54 AM View: Maximum Values in Background
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Parametric Confidence Interval

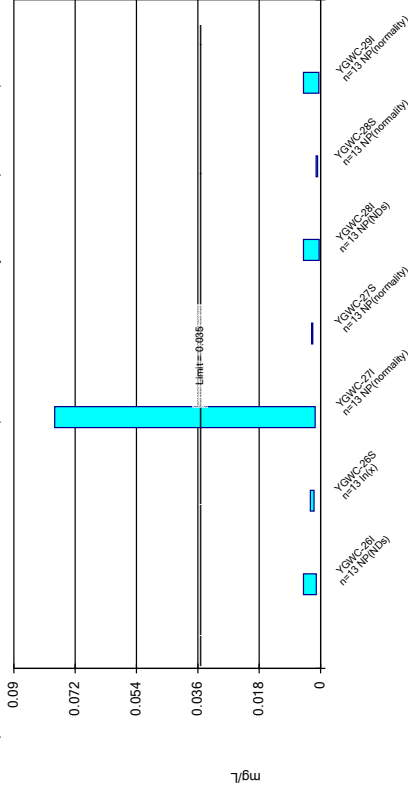
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Combined Radium 226 + 228 Analysis Run 6/27/2019 10:54 AM View: Maximum Values in B
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Parametric and Non-Parametric (NP) Confidence Interval

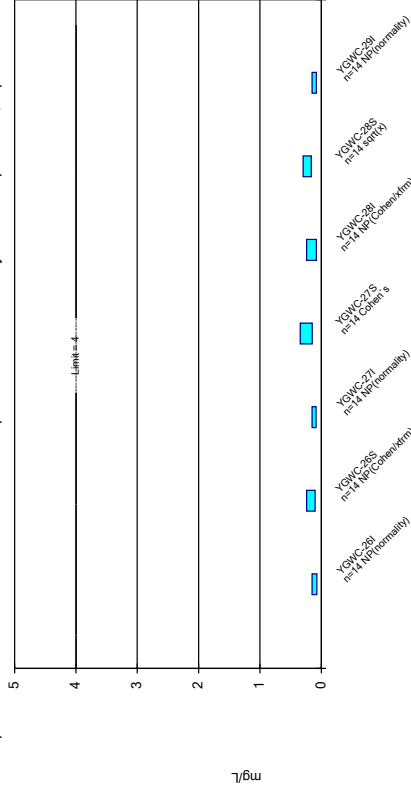
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Cobalt Analysis Run 6/27/2019 10:54 AM View: Maximum Values in Background
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

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 6/27/2019 10:54 AM View: Maximum Values in Background
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Confidence Interval

Constituent: Chromium (mg/L) Analysis Run 6/27/2019 11:00 AM View: Maximum Values in Background

Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWC-26I	YGWC-26S	YGWC-27I	YGWC-27S	YGWC-28I	YGWC-28S	YGWC-29I
6/8/2016	<0.0025	<0.0025	<0.0025	<0.0025			
6/9/2016					<0.0025	<0.0025	<0.0025
8/1/2016	0.0008 (J)	0.0026 (J)	<0.01	<0.01			
8/2/2016					0.0005 (J)	0.0005 (J)	0.0005 (J)
9/20/2016	<0.01	0.001 (J)	<0.01	<0.01			
9/21/2016					<0.01	<0.01	<0.01
11/7/2016	<0.01	0.0013 (J)	<0.01	<0.01		<0.01	<0.01
11/8/2016					<0.01		
1/18/2017	<0.01	0.002 (J)	<0.01		<0.01	<0.01	
1/19/2017				<0.01			<0.01
2/21/2017	<0.01	0.0019 (J)				<0.01	
2/22/2017				<0.01	<0.01		<0.01
2/23/2017			<0.01				
5/3/2017		0.0037 (J)					
5/5/2017					<0.01	<0.01	
5/8/2017	0.0006 (J)		<0.01	<0.01			<0.01
6/30/2017			<0.01	<0.01			
7/5/2017					<0.01		<0.01
7/7/2017						<0.01	
7/10/2017	<0.01 (*)	<0.01 (*)					
3/29/2018			<0.01	<0.01			<0.01
3/30/2018	<0.01	<0.01			<0.01	<0.01	
2/27/2019	0.0049 (J)	0.0055 (J)	<0.01	0.015	<0.01	<0.01	<0.01
4/1/2019			<0.01	<0.01	<0.01		<0.01
4/2/2019	<0.01	0.003 (J)				<0.01	
Mean	0.003868	0.002932	0.004659	0.005568	0.00425	0.00425	0.00425
Std. Dev.	0.001923	0.001644	0.001131	0.003324	0.001677	0.001677	0.001677
Upper Lim.	0.005	0.009221	0.005	0.005	0.005	0.005	0.005
Lower Lim.	0.0008	0.00141	0.005	0.005	0.00125	0.00125	0.00125

Confidence Interval

Constituent: Cobalt (mg/L) Analysis Run 6/27/2019 11:00 AM View: Maximum Values in Background

Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWC-26I	YGWC-26S	YGWC-27I	YGWC-27S	YGWC-28I	YGWC-28S	YGWC-29I
6/8/2016	<0.0025	0.0032	0.0016 (J)	0.0024 (J)			
6/9/2016					0.00042 (J)	0.00085 (J)	0.00052 (J)
8/1/2016	<0.01	0.003 (J)	0.0014 (J)	0.0026 (J)			
8/2/2016					<0.01	0.0008 (J)	0.0006 (J)
9/20/2016	<0.01	0.003 (J)	0.002 (J)	0.0026 (J)			
9/21/2016					<0.01	0.0008 (J)	0.0007 (J)
11/7/2016	<0.01	0.0025 (J)	0.0016 (J)	0.0025 (J)		0.001 (J)	<0.01
11/8/2016					<0.01		
1/18/2017	<0.01	0.0022 (J)	0.0017 (J)		<0.01	0.001 (J)	
1/19/2017				0.0024 (J)			<0.01
2/21/2017	<0.01	0.0022 (J)				0.0011 (J)	
2/22/2017				0.0023 (J)	<0.01		<0.01
2/23/2017			0.002 (J)				
5/3/2017		0.002 (J)					
5/5/2017					<0.01	0.0012 (J)	
5/8/2017	<0.01		0.0029 (J)	0.0023 (J)			<0.01
6/30/2017			0.0044 (J)	0.0022 (J)			
7/5/2017					<0.01		0.0003 (J)
7/7/2017						0.0012 (J)	
7/10/2017	<0.01	0.002 (J)					
3/29/2018			0.0495 (D)	<0.01			<0.01
3/30/2018	<0.01	<0.01			<0.01	<0.01	
6/11/2018							<0.01
6/12/2018				0.0025 (J)	<0.01	0.0011 (J)	
6/13/2018	<0.01	0.0017 (J)	0.092				
10/2/2018	<0.01	0.002 (J)	0.078	0.0023 (J)			<0.01
10/3/2018					<0.01	0.0013 (J)	
2/27/2019	<0.01	0.0017 (J)	0.035	0.0024 (J)	<0.01	0.00093 (J)	<0.01
4/1/2019			0.025	0.0023 (J)	<0.01		<0.01
4/2/2019	<0.01	0.0022 (J)				0.0011 (J)	
Mean	0.004712	0.002515	0.02285	0.0026	0.004648	0.001337	0.003625
Std. Dev.	0.00104	0.0008915	0.03176	0.0007314	0.00127	0.001112	0.002149
Upper Lim.	0.005	0.003003	0.078	0.0026	0.005	0.0013	0.005
Lower Lim.	0.00125	0.001921	0.0016	0.0023	0.00042	0.00085	0.00052

Confidence Interval

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 6/27/2019 11:00 AM View: Maximum Values in Background

Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWC-26I	YGWC-26S	YGWC-27I	YGWC-27S	YGWC-28I	YGWC-28S	YGWC-29I
6/8/2016	6.68	0.677	1.81	0.257 (U)			
6/9/2016					0.194 (U)	0.715	0.523
8/1/2016	0.606 (U)	0.457 (U)	3.79	0.453 (U)			
8/2/2016					0.331 (U)	0.526 (U)	1.25
9/20/2016	0.565 (U)	0.555 (U)	3.12	1.27			
9/21/2016					0.335 (U)	0.176 (U)	1.21 (U)
11/7/2016	0.773 (U)	0.647 (U)	2.66	0.877 (U)		0.609 (U)	1.16
11/8/2016					0.245 (U)		
1/18/2017	<1.39	<1.33	3.44		<1.34	<1.44	
1/19/2017				<1.33			<1.5
2/21/2017	1.06 (U)	1.11 (U)				0.404 (U)	
2/22/2017				1.26 (U)	0.516 (U)		1.45 (U)
2/23/2017			4.73				
5/3/2017		0.654 (U)					
5/5/2017					0.713 (U)	0.868 (U)	
5/8/2017	0.291 (U)		3.87	0.789 (U)			0.21 (U)
6/30/2017			2.85	0.592 (U)			
7/5/2017					0.292 (U)		0.62 (U)
7/7/2017						1.29	
7/10/2017	0.912	0.649 (U)					
3/29/2018			1.41	0.916 (U)			1.37
3/30/2018	0.23 (U)	0.501 (U)			0.948 (U)	0.195 (U)	
6/11/2018							1.27 (U)
6/12/2018				0.666 (U)	0.869 (U)	1.02 (U)	
6/13/2018	0.427 (U)	1.09 (U)	3.69				
10/2/2018	1.41 (U)	0.747 (U)	4.5	0.774 (U)			0.442 (U)
10/3/2018					0.864 (U)	0.713 (U)	
2/27/2019	0.614 (U)	1.27	4.69	1.19	0.947 (U)	0.543 (U)	0.902 (U)
4/1/2019			5	0.777 (U)	0.162 (U)		0.584 (U)
4/2/2019	0.84 (U)	0.708 (U)				0.521 (U)	
Mean	1.162	0.7485	3.505	0.8066	0.5451	0.6385	0.9032
Std. Dev.	1.688	0.2493	1.116	0.3027	0.3013	0.3086	0.4057
Upper Lim.	1.387	0.9156	4.334	1.032	0.7691	0.8679	1.205
Lower Lim.	0.4078	0.5674	2.675	0.5815	0.3211	0.409	0.6015

Confidence Interval

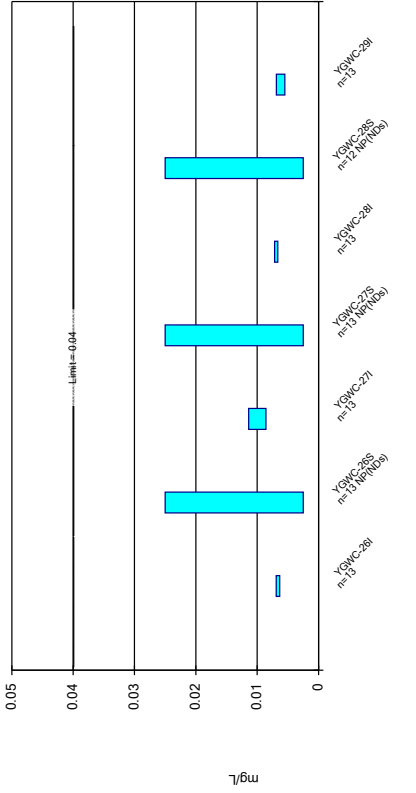
Constituent: Fluoride (mg/L) Analysis Run 6/27/2019 11:00 AM View: Maximum Values in Background

Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWC-26I	YGWC-26S	YGWC-27I	YGWC-27S	YGWC-28I	YGWC-28S	YGWC-29I
6/8/2016	0.094 (J)	<0.2	0.086 (J)	0.12 (J)			
6/9/2016					0.098 (J)	0.16 (J)	0.085 (J)
8/1/2016	0.08 (J)	0.24 (J)	0.14 (J)	0.22 (J)			
8/2/2016					0.38	0.5	0.09 (J)
9/20/2016	0.05 (J)	0.03 (J)	<0.3	0.32			
9/21/2016					0.08 (J)	0.25 (J)	0.09 (J)
11/7/2016	<0.3 (*)	0.44	<0.3 (*)	<0.3 (*)		0.27 (J)	<0.3 (*)
11/8/2016					0.24 (J)		
1/18/2017	0.11 (J)	<0.3 (*)	<0.3 (*)		0.12 (J)	0.34	
1/19/2017				0.25 (J)			<0.3 (*)
2/21/2017	<0.3 (*)	<0.3 (*)				0.27 (J)	
2/22/2017				0.21 (J)	<0.3 (*)		<0.3 (*)
2/23/2017			<0.3 (*)				
5/3/2017		0.16 (J)					
5/5/2017					0.08 (J)	0.2 (J)	
5/8/2017	0.08 (J)		0.07 (J)	0.19 (J)			0.06 (J)
6/30/2017			<0.3 (*)	0.2 (J)			
7/5/2017					0.11 (J)		0.08 (J)
7/7/2017						0.18 (J)	
7/10/2017	<0.3 (*)	<0.3 (*)					
10/5/2017					<0.3 (*)		<0.3 (*)
10/6/2017				<0.3 (*)			
10/9/2017			<0.3 (*)			<0.3 (*)	
10/10/2017	<0.3	<0.3					
3/29/2018			<0.3	0.49			<0.3
3/30/2018	<0.3	0.35			<0.3	<0.3	
6/11/2018							<0.3
6/12/2018				0.037 (J)	<0.3	0.13 (J)	
6/13/2018	0.088 (J)	0.044 (J)	<0.3				
10/2/2018	<0.3	<0.3	<0.3	<0.3			<0.3
10/3/2018					<0.3	0.31	
2/27/2019	<0.3	<0.3	<0.3	0.14 (J)	0.14 (J)	0.22 (J)	0.15 (J)
4/1/2019			0.034 (J)	0.088 (J)	0.078 (J)		0.059 (J)
4/2/2019	0.071 (J)	<0.3				0.14 (J)	
Mean	0.1159	0.1724	0.1307	0.1939	0.1483	0.2336	0.1189
Std. Dev.	0.03759	0.1086	0.03807	0.1101	0.07906	0.1016	0.03836
Upper Lim.	0.15	0.24	0.15	0.3429	0.24	0.2952	0.15
Lower Lim.	0.071	0.1	0.086	0.1487	0.08	0.1638	0.08

Parametric and Non-Parametric (NP) Confidence Interval

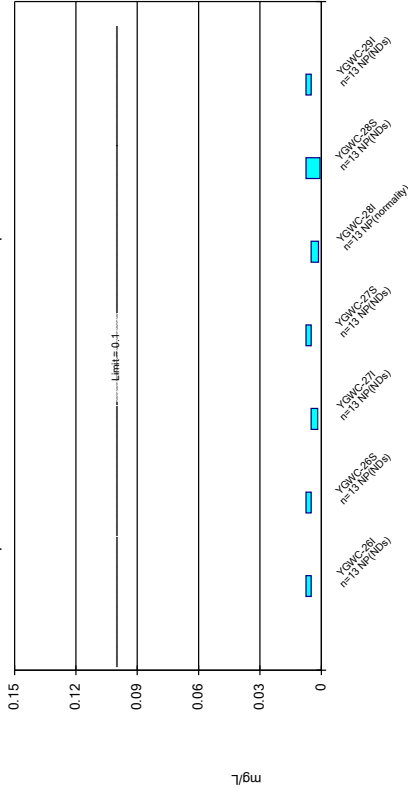
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Lithium Analysis Run 6/27/2019 10:54 AM View: Maximum Values in Background
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Non-Parametric Confidence Interval

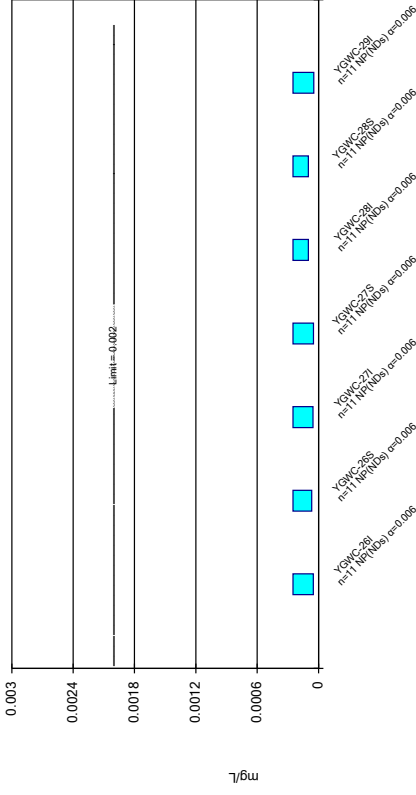
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Molybdenum Analysis Run 6/27/2019 10:54 AM View: Maximum Values in Background
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Non-Parametric Confidence Interval

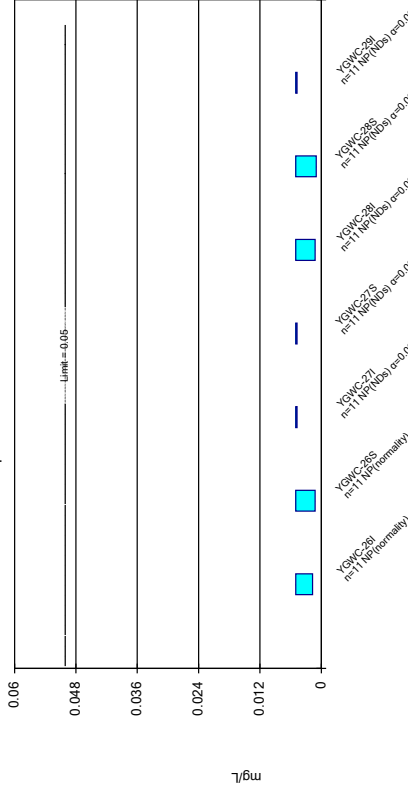
Compliance Limit is not exceeded.



Constituent: Mercury Analysis Run 6/27/2019 10:54 AM View: Maximum Values in Background
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.



Constituent: Selenium Analysis Run 6/27/2019 10:54 AM View: Maximum Values in Background
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Confidence Interval

Constituent: Lithium (mg/L) Analysis Run 6/27/2019 11:00 AM View: Maximum Values in Background

Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWC-26I	YGWC-26S	YGWC-27I	YGWC-27S	YGWC-28I	YGWC-28S	YGWC-29I
6/8/2016	0.007	<0.005	0.0067	<0.005			
6/9/2016					0.0073	<0.005	0.0075
8/1/2016	0.0068 (J)	<0.05	0.008 (J)	<0.05			
8/2/2016					0.0073 (J)	<0.05	0.0078 (J)
9/20/2016	0.0062 (J)	<0.05	0.0111 (J)	<0.05			
9/21/2016					0.0067 (J)	<0.05	0.0074 (J)
11/7/2016	0.0057 (J)	<0.05	0.0097 (J)	<0.05		<0.05	0.0057 (J)
11/8/2016					0.0072 (J)		
1/18/2017	0.0066 (J)	<0.05	0.01 (J)		0.0067 (J)	<0.05	
1/19/2017				<0.05			0.0055 (J)
2/21/2017	0.0067 (J)	<0.05				<0.05	
2/22/2017				<0.05	0.0064 (J)		0.0063 (J)
2/23/2017			0.0099 (J)				
5/3/2017		<0.05					
5/5/2017					0.007 (J)	<0.05	
5/8/2017	0.007 (J)		0.0086 (J)	<0.05			0.0066 (J)
6/30/2017			0.0108 (J)	<0.05			
7/5/2017					0.0072 (J)		0.0058 (J)
7/7/2017						<0.05	
7/10/2017	0.0064 (J)	<0.05					
3/29/2018			0.011 (J)	<0.05			0.0049 (J)
3/30/2018	0.0068 (J)	<0.05			0.007 (J)	<0.05	
6/11/2018							0.0064 (J)
6/12/2018				<0.05	0.0073 (J)	<0.05	
6/13/2018	0.0071 (J)	<0.05	0.014 (J)				
10/2/2018	0.0064 (J)	<0.05	0.012 (J)	<0.05			0.006 (J)
10/3/2018					0.0069 (J)	<0.25 (o)	
2/27/2019	0.0069 (J)	<0.05	0.0096 (J)	<0.05	0.0063 (J)	<0.05	0.0053 (J)
4/1/2019			0.0082 (J)	<0.05	0.0065 (J)		0.0052 (J)
4/2/2019	0.0064 (J)	<0.05				<0.05	
Mean	0.006615	0.02327	0.009969	0.02327	0.006908	0.02313	0.006185
Std. Dev.	0.0003913	0.00624	0.001897	0.00624	0.000357	0.006495	0.0009281
Upper Lim.	0.006906	0.025	0.01138	0.025	0.007173	0.025	0.006875
Lower Lim.	0.006324	0.0025	0.008559	0.0025	0.006642	0.0025	0.005494

Confidence Interval

Constituent: Mercury (mg/L) Analysis Run 6/27/2019 11:00 AM View: Maximum Values in Background

Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWC-26I	YGWC-26S	YGWC-27I	YGWC-27S	YGWC-28I	YGWC-28S	YGWC-29I
6/8/2016	<0.0002	<0.0002	<0.0002	<0.0002			
6/9/2016					<0.0002 (*)	<0.0002 (*)	<0.0002 (*)
8/1/2016	<0.0005	<0.0005	<0.0005	<0.0005			
8/2/2016					<0.0005	<0.0005	<0.0005
9/20/2016	<0.0005	<0.0005	<0.0005	<0.0005			
9/21/2016					<0.0005	<0.0005	<0.0005
11/7/2016	<0.0005	<0.0005	<0.0005	<0.0005		<0.0005	<0.0005
11/8/2016					<0.0005		
1/18/2017	<0.0005	<0.0005	<0.0005		<0.0005	<0.0005	
1/19/2017				<0.0005			<0.0005
2/21/2017	<0.0005	<0.0005				<0.0005	
2/22/2017				<0.0005	<0.0005		<0.0005
2/23/2017			<0.0005				
5/3/2017		<0.0005					
5/5/2017					<0.0005	<0.0005	
5/8/2017	<0.0005		<0.0005	<0.0005			<0.0005
6/30/2017			<0.0005 (*)	<0.0005 (*)			
7/5/2017					<0.0005		<0.0005
7/7/2017						<0.0005	
7/10/2017	<0.0005	<0.0005					
3/29/2018			<0.0005	<0.0005			<0.0005
3/30/2018	<0.0005	<0.0005			<0.0005	<0.0005	
2/27/2019	5.1E-05 (J)	4.9E-05 (J)	5.4E-05 (J)	4.9E-05 (J)	4.8E-05 (J)	5.2E-05 (J)	4.7E-05 (J)
4/1/2019			4.5E-05 (J)	4.1E-05 (J)	<0.0005		3.9E-05 (J)
4/2/2019	5.1E-05 (J)	6.6E-05 (J)				<0.0005	
Mean	0.0002002	0.0002014	0.0001999	0.0001991	0.000218	0.0002184	0.0001987
Std. Dev.	8.626E-05	8.411E-05	8.68E-05	8.836E-05	7.214E-05	7.12E-05	8.906E-05
Upper Lim.	0.00025	0.00025	0.00025	0.00025	0.00025	0.00025	0.00025
Lower Lim.	5.1E-05	6.6E-05	5.4E-05	4.9E-05	0.0001	0.0001	4.7E-05

Confidence Interval

Constituent: Molybdenum (mg/L) Analysis Run 6/27/2019 11:00 AM View: Maximum Values in Background

Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWC-26I	YGWC-26S	YGWC-27I	YGWC-27S	YGWC-28I	YGWC-28S	YGWC-29I
6/8/2016	<0.015	<0.015	0.0011 (J)	<0.015			
6/9/2016					0.0011 (J)	<0.015	<0.015
8/1/2016	<0.01	<0.01	0.0018 (J)	<0.01			
8/2/2016					0.0014 (J)	0.0006 (J)	<0.01
9/20/2016	<0.01	<0.01	<0.01	<0.01			
9/21/2016					<0.01	<0.01	<0.01
11/7/2016	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01
11/8/2016					<0.01		
1/18/2017	<0.01	<0.01	<0.01		<0.01	<0.01	
1/19/2017				<0.01			<0.01
2/21/2017	<0.01	<0.01				<0.01	
2/22/2017				<0.01	<0.01		<0.01
2/23/2017			<0.01				
5/3/2017		<0.01					
5/5/2017					0.0014 (J)	0.0007 (J)	
5/8/2017	<0.01		0.0011 (J)	<0.01			<0.01
6/30/2017			<0.01	<0.01			
7/5/2017					0.0014 (J)		<0.01
7/7/2017						<0.01	
7/10/2017	<0.01	<0.01					
3/29/2018			<0.01	<0.01			<0.01
3/30/2018	<0.01	<0.01			<0.01	<0.01	
6/11/2018							<0.01
6/12/2018				<0.01	<0.01	<0.01	
6/13/2018	<0.01	<0.01	<0.01				
10/2/2018	<0.01	<0.01	<0.01	<0.01			<0.01
10/3/2018					<0.01	<0.01	
2/27/2019	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
4/1/2019			<0.01	<0.01	<0.01		<0.01
4/2/2019	<0.01	<0.01				<0.01	
Mean	0.005192	0.005192	0.004154	0.005192	0.003869	0.004523	0.005192
Std. Dev.	0.0006934	0.0006934	0.001616	0.0006934	0.001767	0.001852	0.0006934
Upper Lim.	0.0075	0.0075	0.005	0.0075	0.005	0.0075	0.0075
Lower Lim.	0.005	0.005	0.0018	0.005	0.0014	0.0007	0.005

Confidence Interval

Constituent: Selenium (mg/L) Analysis Run 6/27/2019 11:00 AM View: Maximum Values in Background

Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWC-26I	YGWC-26S	YGWC-27I	YGWC-27S	YGWC-28I	YGWC-28S	YGWC-29I
6/8/2016	0.0016	0.0003 (J)	<0.0013	<0.0013			
6/9/2016					<0.0013	<0.0013	<0.0013
8/1/2016	0.0023 (J)	0.0014 (J)	<0.01	<0.01			
8/2/2016					<0.01	<0.01	<0.01
9/20/2016	0.0022 (J)	<0.01	<0.01	<0.01			
9/21/2016					<0.01	0.001 (J)	<0.01
11/7/2016	0.0017 (J)	<0.01	<0.01	<0.01		<0.01	<0.01
11/8/2016					<0.01		
1/18/2017	0.002 (J)	0.0012 (J)	<0.01		<0.01	<0.01	
1/19/2017				<0.01			<0.01
2/21/2017	0.0018 (J)	0.0014 (J)				<0.01	
2/22/2017				<0.01	0.0012 (J)		<0.01
2/23/2017			<0.01				
5/3/2017		<0.01					
5/5/2017					<0.01	<0.01	
5/8/2017	<0.01		<0.01	<0.01			<0.01
6/30/2017			<0.01	<0.01			
7/5/2017					<0.01		<0.01
7/7/2017						<0.01	
7/10/2017	0.002 (J)	<0.01					
3/29/2018			<0.01	<0.01			<0.01
3/30/2018	<0.01	<0.01			<0.01	<0.01	
2/27/2019	0.002 (J)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
4/1/2019			<0.01	<0.01	<0.01		<0.01
4/2/2019	0.0017 (J)	<0.01				<0.01	
Mean	0.002482	0.003573	0.004605	0.004605	0.004259	0.004241	0.004605
Std. Dev.	0.001263	0.002001	0.001312	0.001312	0.001653	0.001691	0.001312
Upper Lim.	0.005	0.005	0.005	0.005	0.005	0.005	0.005
Lower Lim.	0.0017	0.0012	0.005	0.005	0.0012	0.001	0.005

Confidence Interval

Plant Yates Client: Southern Company Data: Yates Ash Pond 2 Printed 6/27/2019, 11:02 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Arsenic (mg/L)	YGWC-26I	0.0025	0.00065	0.01	No	8	100	No	0.004	NP (NDs)
Arsenic (mg/L)	YGWC-26S	0.0025	0.00065	0.01	No	8	100	No	0.004	NP (NDs)
Arsenic (mg/L)	YGWC-27I	0.0025	0.0006	0.01	No	8	62.5	No	0.004	NP (normality)
Arsenic (mg/L)	YGWC-27S	0.0025	0.00065	0.01	No	8	100	No	0.004	NP (NDs)
Arsenic (mg/L)	YGWC-28I	0.0025	0.00065	0.01	No	8	100	No	0.004	NP (NDs)
Arsenic (mg/L)	YGWC-28S	0.0025	0.0007	0.01	No	8	75	No	0.004	NP (normality)
Arsenic (mg/L)	YGWC-29I	0.0025	0.00065	0.01	No	8	100	No	0.004	NP (NDs)
Barium (mg/L)	YGWC-26I	0.06954	0.06423	2	No	8	0	No	0.01	Param.
Barium (mg/L)	YGWC-26S	0.03028	0.02744	2	No	8	0	No	0.01	Param.
Barium (mg/L)	YGWC-27I	0.0795	0.06385	2	No	8	0	No	0.01	Param.
Barium (mg/L)	YGWC-27S	0.1146	0.09819	2	No	8	0	No	0.01	Param.
Barium (mg/L)	YGWC-28I	0.09451	0.08401	2	No	8	0	No	0.01	Param.
Barium (mg/L)	YGWC-28S	0.2241	0.2091	2	No	8	0	No	0.01	Param.
Barium (mg/L)	YGWC-29I	0.07937	0.0688	2	No	8	0	No	0.01	Param.
Beryllium (mg/L)	YGWC-26I	0.0015	0.00125	0.004	No	8	100	No	0.004	NP (NDs)
Beryllium (mg/L)	YGWC-26S	0.00125	0.0001	0.004	No	8	12.5	No	0.004	NP (normality)
Beryllium (mg/L)	YGWC-27I	0.0015	0.00009	0.004	No	8	25	No	0.004	NP (normality)
Beryllium (mg/L)	YGWC-27S	0.0015	0.00125	0.004	No	8	100	No	0.004	NP (NDs)
Beryllium (mg/L)	YGWC-28I	0.0015	0.00125	0.004	No	8	100	No	0.004	NP (NDs)
Beryllium (mg/L)	YGWC-28S	0.0015	0.00125	0.004	No	8	100	No	0.004	NP (NDs)
Beryllium (mg/L)	YGWC-29I	0.0015	0.00125	0.004	No	8	100	No	0.004	NP (NDs)
Cadmium (mg/L)	YGWC-26I	0.00125	0.0005	0.005	No	8	100	No	0.004	NP (NDs)
Cadmium (mg/L)	YGWC-26S	0.00125	0.0005	0.005	No	8	100	No	0.004	NP (NDs)
Cadmium (mg/L)	YGWC-27I	0.00125	0.0005	0.005	No	8	100	No	0.004	NP (NDs)
Cadmium (mg/L)	YGWC-27S	0.00125	0.0005	0.005	No	8	100	No	0.004	NP (NDs)
Cadmium (mg/L)	YGWC-28I	0.00055	0.00009	0.005	No	8	0	No	0.004	NP (normality)
Cadmium (mg/L)	YGWC-28S	0.00125	0.0005	0.005	No	8	100	No	0.004	NP (NDs)
Cadmium (mg/L)	YGWC-29I	0.00125	0.0005	0.005	No	8	100	No	0.004	NP (NDs)
Chromium (mg/L)	YGWC-26I	0.005	0.0006	0.1	No	8	75	No	0.004	NP (normality)
Chromium (mg/L)	YGWC-26S	0.009515	-0.0002384	0.1	No	8	25	No	0.01	Param.
Chromium (mg/L)	YGWC-27I	0.005	0.00125	0.1	No	8	100	No	0.004	NP (NDs)
Chromium (mg/L)	YGWC-27S	0.005	0.00125	0.1	No	8	100	No	0.004	NP (NDs)
Chromium (mg/L)	YGWC-28I	0.005	0.0005	0.1	No	8	87.5	No	0.004	NP (NDs)
Chromium (mg/L)	YGWC-28S	0.005	0.0005	0.1	No	8	87.5	No	0.004	NP (NDs)
Chromium (mg/L)	YGWC-29I	0.005	0.0005	0.1	No	8	87.5	No	0.004	NP (NDs)
Cobalt (mg/L)	YGWC-26I	0.005	0.00125	0.035	No	8	100	No	0.004	NP (NDs)
Cobalt (mg/L)	YGWC-26S	0.00303	0.001995	0.035	No	8	0	No	0.01	Param.
Cobalt (mg/L)	YGWC-27I	0.003064	0.001371	0.035	No	8	0	In(x)	0.01	Param.
Cobalt (mg/L)	YGWC-27S	0.002567	0.002258	0.035	No	8	0	No	0.01	Param.
Cobalt (mg/L)	YGWC-28I	0.005	0.00042	0.035	No	8	87.5	No	0.004	NP (NDs)
Cobalt (mg/L)	YGWC-28S	0.001169	0.0008181	0.035	No	8	0	No	0.01	Param.
Cobalt (mg/L)	YGWC-29I	0.005	0.0003	0.035	No	8	50	No	0.004	NP (normality)
Combined Radium 226 + 228 (pCi/L)	YGWC-26I	6.68	0.291	5	No	8	12.5	No	0.004	NP (normality)
Combined Radium 226 + 228 (pCi/L)	YGWC-26S	1.11	0.457	5	No	8	12.5	No	0.004	NP (normality)
Combined Radium 226 + 228 (pCi/L)	YGWC-27I	4.223	2.345	5	No	8	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	YGWC-27S	1.152	0.3886	5	No	8	12.5	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	YGWC-28I	0.6203	0.2037	5	No	8	12.5	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	YGWC-28S	1.014	0.3126	5	No	8	12.5	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	YGWC-29I	1.355	0.4385	5	No	8	12.5	No	0.01	Param.
Fluoride (mg/L)	YGWC-26I	0.15	0.05	4	No	9	44.44	No	0.002	NP (normality)

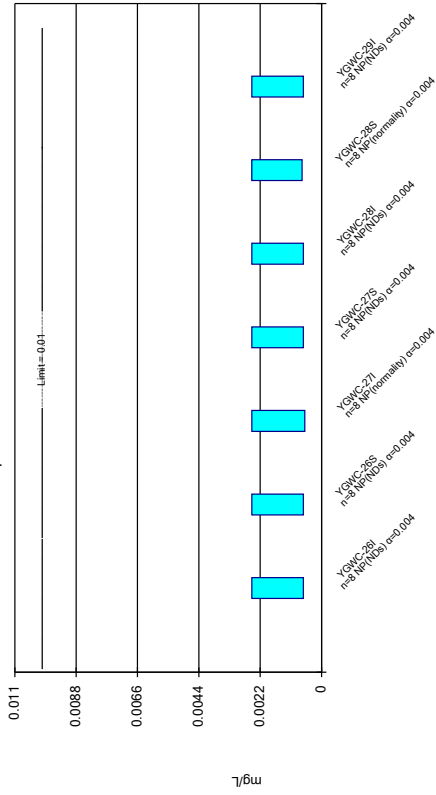
Confidence Interval

Plant Yates Client: Southern Company Data: Yates Ash Pond 2 Printed 6/27/2019, 11:02 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Fluoride (mg/L)	YGWC-26S	0.44	0.03	4	No	9	55.56	No	0.002	NP (Cohens/xfrm)
Fluoride (mg/L)	YGWC-27I	0.15	0.07	4	No	9	66.67	No	0.002	NP (normality)
Fluoride (mg/L)	YGWC-27S	0.3205	0.1691	4	No	9	22.22	No	0.01	Param.
Fluoride (mg/L)	YGWC-28I	0.38	0.08	4	No	9	22.22	No	0.002	NP (Cohens/xfrm)
Fluoride (mg/L)	YGWC-28S	0.3637	0.1518	4	No	9	11.11	No	0.01	Param.
Fluoride (mg/L)	YGWC-29I	0.15	0.06	4	No	9	44.44	No	0.002	NP (normality)
Lithium (mg/L)	YGWC-26I	0.007017	0.006083	0.025	No	8	0	No	0.01	Param.
Lithium (mg/L)	YGWC-26S	0.025	0.0025	0.025	No	8	100	No	0.004	NP (NDs)
Lithium (mg/L)	YGWC-27I	0.01092	0.007777	0.025	No	8	0	No	0.01	Param.
Lithium (mg/L)	YGWC-27S	0.025	0.0025	0.025	No	8	100	No	0.004	NP (NDs)
Lithium (mg/L)	YGWC-28I	0.007332	0.006618	0.025	No	8	0	No	0.01	Param.
Lithium (mg/L)	YGWC-28S	0.025	0.0025	0.025	No	8	100	No	0.004	NP (NDs)
Lithium (mg/L)	YGWC-29I	0.007526	0.005624	0.025	No	8	0	No	0.01	Param.
Mercury (mg/L)	YGWC-26I	0.00025	0.0001	0.002	No	8	100	No	0.004	NP (NDs)
Mercury (mg/L)	YGWC-26S	0.00025	0.0001	0.002	No	8	100	No	0.004	NP (NDs)
Mercury (mg/L)	YGWC-27I	0.00025	0.0001	0.002	No	8	100	No	0.004	NP (NDs)
Mercury (mg/L)	YGWC-27S	0.00025	0.0001	0.002	No	8	100	No	0.004	NP (NDs)
Mercury (mg/L)	YGWC-28I	0.00025	0.0001	0.002	No	8	100	No	0.004	NP (NDs)
Mercury (mg/L)	YGWC-28S	0.00025	0.0001	0.002	No	8	100	No	0.004	NP (NDs)
Mercury (mg/L)	YGWC-29I	0.00025	0.0001	0.002	No	8	100	No	0.004	NP (NDs)
Molybdenum (mg/L)	YGWC-26I	0.0075	0.005	0.014	No	8	100	No	0.004	NP (NDs)
Molybdenum (mg/L)	YGWC-26S	0.0075	0.005	0.014	No	8	100	No	0.004	NP (NDs)
Molybdenum (mg/L)	YGWC-27I	0.005	0.0011	0.014	No	8	62.5	No	0.004	NP (normality)
Molybdenum (mg/L)	YGWC-27S	0.0075	0.005	0.014	No	8	100	No	0.004	NP (NDs)
Molybdenum (mg/L)	YGWC-28I	0.005	0.0011	0.014	No	8	50	No	0.004	NP (normality)
Molybdenum (mg/L)	YGWC-28S	0.0075	0.0006	0.014	No	8	75	No	0.004	NP (normality)
Molybdenum (mg/L)	YGWC-29I	0.0075	0.005	0.014	No	8	100	No	0.004	NP (NDs)
Selenium (mg/L)	YGWC-26I	0.005	0.0016	0.05	No	8	12.5	No	0.004	NP (normality)
Selenium (mg/L)	YGWC-26S	0.005	0.0003	0.05	No	8	50	No	0.004	NP (normality)
Selenium (mg/L)	YGWC-27I	0.005	0.00065	0.05	No	8	100	No	0.004	NP (NDs)
Selenium (mg/L)	YGWC-27S	0.005	0.00065	0.05	No	8	100	No	0.004	NP (NDs)
Selenium (mg/L)	YGWC-28I	0.005	0.00065	0.05	No	8	87.5	No	0.004	NP (NDs)
Selenium (mg/L)	YGWC-28S	0.005	0.00065	0.05	No	8	87.5	No	0.004	NP (NDs)
Selenium (mg/L)	YGWC-29I	0.005	0.00065	0.05	No	8	100	No	0.004	NP (NDs)

Non-Parametric Confidence Interval

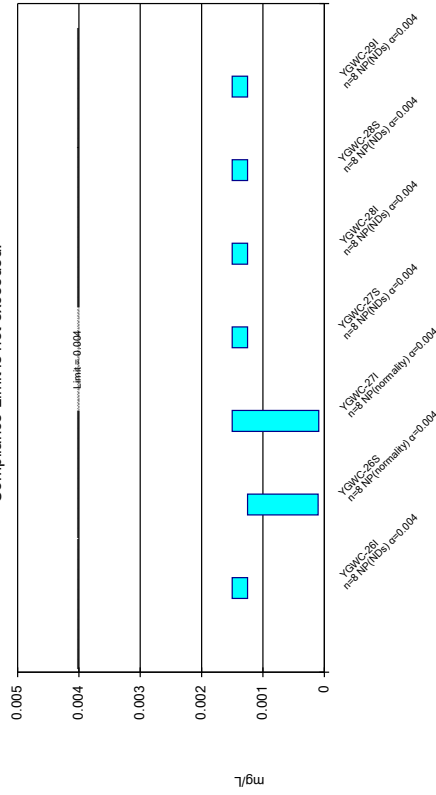
Compliance Limit is not exceeded.



Constituent: Arsenic Analysis Run 6/27/2019 11:01 AM View: Maximum Values in Background
 Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Non-Parametric Confidence Interval

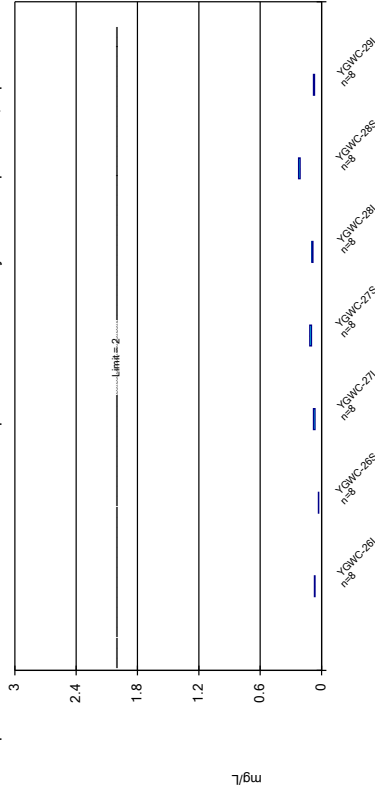
Compliance Limit is not exceeded.



Constituent: Beryllium Analysis Run 6/27/2019 11:01 AM View: Maximum Values in Background
 Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Parametric Confidence Interval

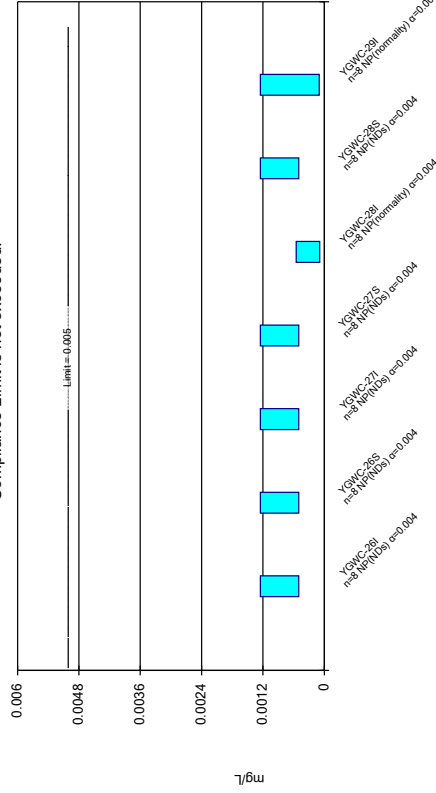
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Barium Analysis Run 6/27/2019 11:01 AM View: Maximum Values in Background
 Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.



Constituent: Cadmium Analysis Run 6/27/2019 11:01 AM View: Maximum Values in Background
 Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Confidence Interval

Constituent: Arsenic (mg/L) Analysis Run 6/27/2019 11:02 AM View: Maximum Values in Background

Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWC-26I	YGWC-26S	YGWC-27I	YGWC-27S	YGWC-28I	YGWC-28S	YGWC-29I
6/8/2016	<0.0013	<0.0013	0.0011 (J)	<0.0013			
6/9/2016					<0.0013	0.00094 (J)	<0.0013
8/1/2016	<0.005	<0.005	0.0009 (J)	<0.005			
8/2/2016					<0.005	<0.005	<0.005
9/20/2016	<0.005	<0.005	<0.005	<0.005			
9/21/2016					<0.005	<0.005	<0.005
11/7/2016	<0.005	<0.005	<0.005	<0.005		<0.005	<0.005
11/8/2016					<0.005		
1/18/2017	<0.005	<0.005	<0.005		<0.005	<0.005	
1/19/2017				<0.005			<0.005
2/21/2017	<0.005	<0.005				<0.005	
2/22/2017				<0.005	<0.005		<0.005
2/23/2017			<0.005				
5/3/2017		<0.005					
5/5/2017					<0.005	<0.005	
5/8/2017	<0.005		0.0006 (J)	<0.005			<0.005
6/30/2017			<0.005 (*)	<0.005 (*)			
7/5/2017					<0.005		<0.005
7/7/2017						0.0007 (J)	
7/10/2017	<0.005	<0.005					
Mean	0.002269	0.002269	0.001887	0.002269	0.002269	0.00208	0.002269
Std. Dev.	0.0006541	0.0006541	0.000856	0.0006541	0.0006541	0.0007803	0.0006541
Upper Lim.	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025
Lower Lim.	0.00065	0.00065	0.0006	0.00065	0.00065	0.0007	0.00065

Confidence Interval

Constituent: Barium (mg/L) Analysis Run 6/27/2019 11:02 AM View: Maximum Values in Background

Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWC-26I	YGWC-26S	YGWC-27I	YGWC-27S	YGWC-28I	YGWC-28S	YGWC-29I
6/8/2016	0.068	0.029	0.081	0.12			
6/9/2016					0.1	0.22	0.082
8/1/2016	0.0688	0.0316	0.0838	0.115			
8/2/2016					0.0836	0.212	0.0781
9/20/2016	0.0663	0.0298	0.0687	0.108			
9/21/2016					0.0889	0.228	0.0782
11/7/2016	0.065	0.0289	0.0639	0.102		0.214	0.0712
11/8/2016					0.0886		
1/18/2017	0.0625	0.0278	0.0645		0.0862	0.213	
1/19/2017				0.102			0.0689
2/21/2017	0.0655	0.0282				0.222	
2/22/2017				0.106	0.0915		0.0741
2/23/2017			0.0728				
5/3/2017		0.0282					
5/5/2017					0.0891	0.219	
5/8/2017	0.0699		0.0721	0.102			0.0725
6/30/2017			0.0666	0.0963			
7/5/2017					0.0862		0.0677
7/7/2017						0.205	
7/10/2017	0.0691	0.0274					
Mean	0.06689	0.02886	0.07168	0.1064	0.08926	0.2166	0.07409
Std. Dev.	0.002506	0.001338	0.007387	0.007762	0.004953	0.00709	0.004988
Upper Lim.	0.06954	0.03028	0.0795	0.1146	0.09451	0.2241	0.07937
Lower Lim.	0.06423	0.02744	0.06385	0.09819	0.08401	0.2091	0.0688

Confidence Interval

Constituent: Beryllium (mg/L) Analysis Run 6/27/2019 11:02 AM View: Maximum Values in Background

Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWC-26I	YGWC-26S	YGWC-27I	YGWC-27S	YGWC-28I	YGWC-28S	YGWC-29I
6/8/2016	<0.0025	<0.0025	<0.0025	<0.0025			
6/9/2016					<0.0025	<0.0025	<0.0025
8/1/2016	<0.003	0.0002 (J)	<0.003	<0.003			
8/2/2016					<0.003	<0.003	<0.003
9/20/2016	<0.003	0.0001 (J)	9E-05 (J)	<0.003			
9/21/2016					<0.003	<0.003	<0.003
11/7/2016	<0.003	0.0001 (J)	0.0001 (J)	<0.003		<0.003	<0.003
11/8/2016					<0.003		
1/18/2017	<0.003	0.0002 (J)	0.0002 (J)		<0.003	<0.003	
1/19/2017				<0.003			<0.003
2/21/2017	<0.003	0.0002 (J)				<0.003	
2/22/2017				<0.003	<0.003		<0.003
2/23/2017			0.0002 (J)				
5/3/2017		0.0002 (J)					
5/5/2017					<0.003	<0.003	
5/8/2017	<0.003		0.0002 (J)	<0.003			<0.003
6/30/2017			0.0002 (J)	<0.003			
7/5/2017					<0.003		<0.003
7/7/2017						<0.003	
7/10/2017	<0.003	0.0002 (J)					
Mean	0.001469	0.0003062	0.0004675	0.001469	0.001469	0.001469	0.001469
Std. Dev.	8.839E-05	0.000384	0.000566	8.839E-05	8.839E-05	8.839E-05	8.839E-05
Upper Lim.	0.0015	0.00125	0.0015	0.0015	0.0015	0.0015	0.0015
Lower Lim.	0.00125	0.0001	9E-05	0.00125	0.00125	0.00125	0.00125

Confidence Interval

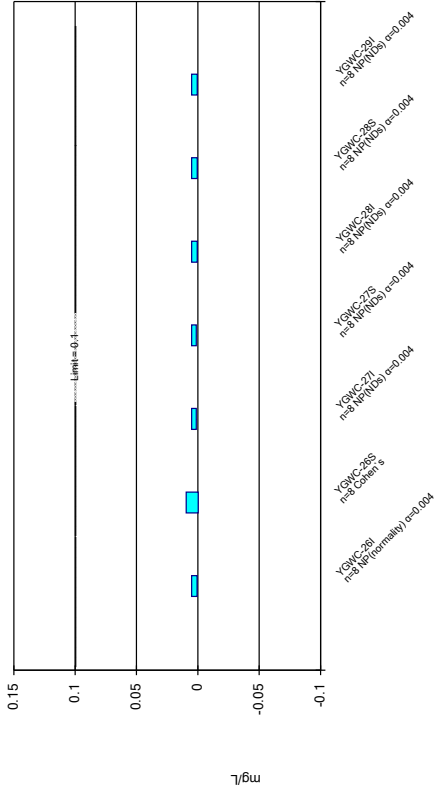
Constituent: Cadmium (mg/L) Analysis Run 6/27/2019 11:02 AM View: Maximum Values in Background

Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWC-26I	YGWC-26S	YGWC-27I	YGWC-27S	YGWC-28I	YGWC-28S	YGWC-29I
6/8/2016	<0.0025	<0.0025	<0.0025	<0.0025			
6/9/2016					0.00055 (J)	<0.0025	<0.0025
8/1/2016	<0.001	<0.001	<0.001	<0.001			
8/2/2016					0.0001 (J)	<0.001	0.0001 (J)
9/20/2016	<0.001	<0.001	<0.001	<0.001			
9/21/2016					0.0001 (J)	<0.001	0.0002 (J)
11/7/2016	<0.001	<0.001	<0.001	<0.001		<0.001	0.0002 (J)
11/8/2016					9E-05 (J)		
1/18/2017	<0.001	<0.001	<0.001		9E-05 (J)	<0.001	
1/19/2017				<0.001			0.0001 (J)
2/21/2017	<0.001	<0.001				<0.001	
2/22/2017				<0.001	0.0001 (J)		0.0001 (J)
2/23/2017			<0.001				
5/3/2017		<0.001					
5/5/2017					9E-05 (J)	<0.001	
5/8/2017	<0.001		<0.001	<0.001			0.0002 (J)
6/30/2017			<0.001	<0.001			
7/5/2017					0.0002 (J)		0.0002 (J)
7/7/2017						<0.001	
7/10/2017	<0.001	<0.001					
Mean	0.0005938	0.0005938	0.0005938	0.0005938	0.000165	0.0005938	0.0002937
Std. Dev.	0.0002652	0.0002652	0.0002652	0.0002652	0.0001599	0.0002652	0.0003895
Upper Lim.	0.00125	0.00125	0.00125	0.00125	0.00055	0.00125	0.00125
Lower Lim.	0.0005	0.0005	0.0005	0.0005	9E-05	0.0005	0.0001

Parametric and Non-Parametric (NP) Confidence Interval

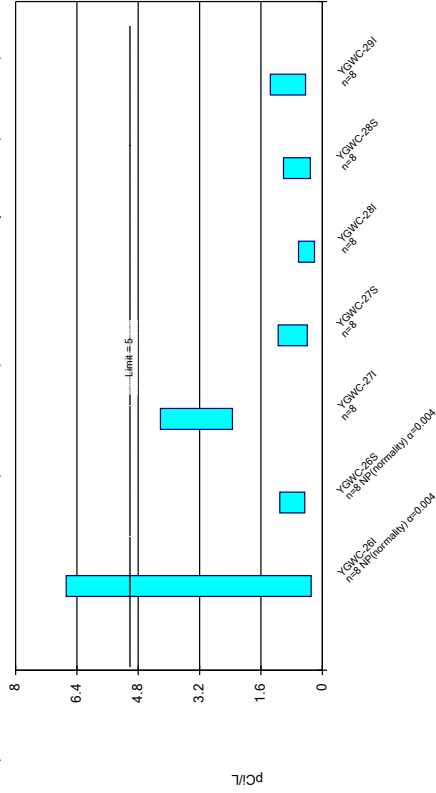
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Chromium Analysis Run 6/27/2019 11:01 AM View: Maximum Values in Background
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Parametric and Non-Parametric (NP) Confidence Interval

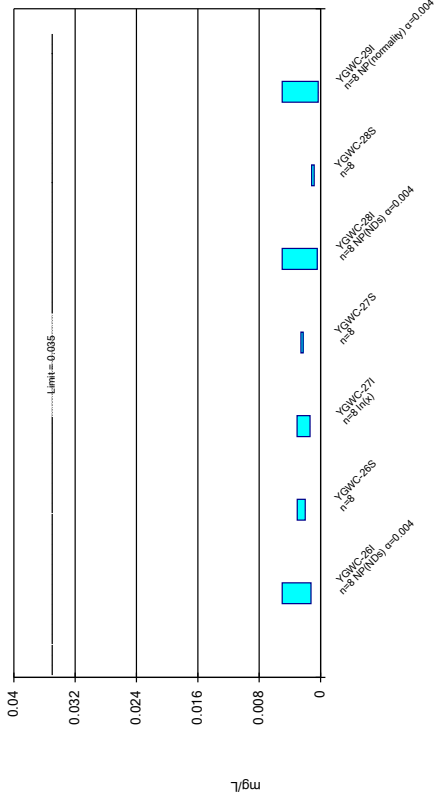
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Combined Radium 226 + 228 Analysis Run 6/27/2019 11:01 AM View: Maximum Values in B
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Parametric and Non-Parametric (NP) Confidence Interval

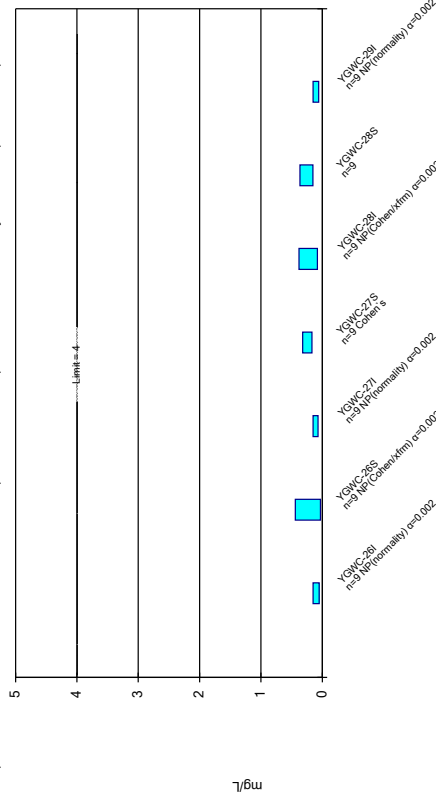
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Cobalt Analysis Run 6/27/2019 11:01 AM View: Maximum Values in Background
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

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: Fluoride Analysis Run 6/27/2019 11:01 AM View: Maximum Values in Background
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Confidence Interval

Constituent: Chromium (mg/L) Analysis Run 6/27/2019 11:02 AM View: Maximum Values in Background

Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWC-26I	YGWC-26S	YGWC-27I	YGWC-27S	YGWC-28I	YGWC-28S	YGWC-29I
6/8/2016	<0.0025	<0.0025	<0.0025	<0.0025			
6/9/2016					<0.0025	<0.0025	<0.0025
8/1/2016	0.0008 (J)	0.0026 (J)	<0.01	<0.01			
8/2/2016					0.0005 (J)	0.0005 (J)	0.0005 (J)
9/20/2016	<0.01	0.001 (J)	<0.01	<0.01			
9/21/2016					<0.01	<0.01	<0.01
11/7/2016	<0.01	0.0013 (J)	<0.01	<0.01		<0.01	<0.01
11/8/2016					<0.01		
1/18/2017	<0.01	0.002 (J)	<0.01		<0.01	<0.01	
1/19/2017				<0.01			<0.01
2/21/2017	<0.01	0.0019 (J)				<0.01	
2/22/2017				<0.01	<0.01		<0.01
2/23/2017			<0.01				
5/3/2017		0.0037 (J)					
5/5/2017					<0.01	<0.01	
5/8/2017	0.0006 (J)		<0.01	<0.01			<0.01
6/30/2017			<0.01	<0.01			
7/5/2017					<0.01		<0.01
7/7/2017						<0.01	
7/10/2017	<0.01 (*)	<0.01 (*)					
Mean	0.003456	0.002344	0.004531	0.004531	0.003969	0.003969	0.003969
Std. Dev.	0.002138	0.001382	0.001326	0.001326	0.00192	0.00192	0.00192
Upper Lim.	0.005	0.009515	0.005	0.005	0.005	0.005	0.005
Lower Lim.	0.0006	-0.0002384	0.00125	0.00125	0.0005	0.0005	0.0005

Confidence Interval

Constituent: Cobalt (mg/L) Analysis Run 6/27/2019 11:02 AM View: Maximum Values in Background

Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWC-26I	YGWC-26S	YGWC-27I	YGWC-27S	YGWC-28I	YGWC-28S	YGWC-29I
6/8/2016	<0.0025	0.0032	0.0016 (J)	0.0024 (J)			
6/9/2016					0.00042 (J)	0.00085 (J)	0.00052 (J)
8/1/2016	<0.01	0.003 (J)	0.0014 (J)	0.0026 (J)			
8/2/2016					<0.01	0.0008 (J)	0.0006 (J)
9/20/2016	<0.01	0.003 (J)	0.002 (J)	0.0026 (J)			
9/21/2016					<0.01	0.0008 (J)	0.0007 (J)
11/7/2016	<0.01	0.0025 (J)	0.0016 (J)	0.0025 (J)		0.001 (J)	<0.01
11/8/2016					<0.01		
1/18/2017	<0.01	0.0022 (J)	0.0017 (J)		<0.01	0.001 (J)	
1/19/2017				0.0024 (J)			<0.01
2/21/2017	<0.01	0.0022 (J)				0.0011 (J)	
2/22/2017				0.0023 (J)	<0.01		<0.01
2/23/2017			0.002 (J)				
5/3/2017		0.002 (J)					
5/5/2017					<0.01	0.0012 (J)	
5/8/2017	<0.01		0.0029 (J)	0.0023 (J)			<0.01
6/30/2017			0.0044 (J)	0.0022 (J)			
7/5/2017					<0.01		0.0003 (J)
7/7/2017						0.0012 (J)	
7/10/2017	<0.01	0.002 (J)					
Mean	0.004531	0.002513	0.0022	0.002413	0.004427	0.0009938	0.002765
Std. Dev.	0.001326	0.0004883	0.001001	0.0001458	0.001619	0.0001657	0.002392
Upper Lim.	0.005	0.00303	0.003064	0.002567	0.005	0.001169	0.005
Lower Lim.	0.00125	0.001995	0.001371	0.002258	0.00042	0.0008181	0.0003

Confidence Interval

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 6/27/2019 11:02 AM View: Maximum Values in Background

Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWC-26I	YGWC-26S	YGWC-27I	YGWC-27S	YGWC-28I	YGWC-28S	YGWC-29I
6/8/2016	6.68	0.677	1.81	0.257 (U)			
6/9/2016					0.194 (U)	0.715	0.523
8/1/2016	0.606 (U)	0.457 (U)	3.79	0.453 (U)			
8/2/2016					0.331 (U)	0.526 (U)	1.25
9/20/2016	0.565 (U)	0.555 (U)	3.12	1.27			
9/21/2016					0.335 (U)	0.176 (U)	1.21 (U)
11/7/2016	0.773 (U)	0.647 (U)	2.66	0.877 (U)		0.609 (U)	1.16
11/8/2016					0.245 (U)		
1/18/2017	<1.39	<1.33	3.44		<1.34	<1.44	
1/19/2017				<1.33			<1.5
2/21/2017	1.06 (U)	1.11 (U)				0.404 (U)	
2/22/2017				1.26 (U)	0.516 (U)		1.45 (U)
2/23/2017			4.73				
5/3/2017		0.654 (U)					
5/5/2017					0.713 (U)	0.868 (U)	
5/8/2017	0.291 (U)		3.87	0.789 (U)			0.21 (U)
6/30/2017			2.85	0.592 (U)			
7/5/2017					0.292 (U)		0.62 (U)
7/7/2017						1.29	
7/10/2017	0.912	0.649 (U)					
Mean	1.448	0.6768	3.284	0.7704	0.412	0.6635	0.8966
Std. Dev.	2.127	0.1902	0.8858	0.3602	0.1965	0.331	0.4322
Upper Lim.	6.68	1.11	4.223	1.152	0.6203	1.014	1.355
Lower Lim.	0.291	0.457	2.345	0.3886	0.2037	0.3126	0.4385

Confidence Interval

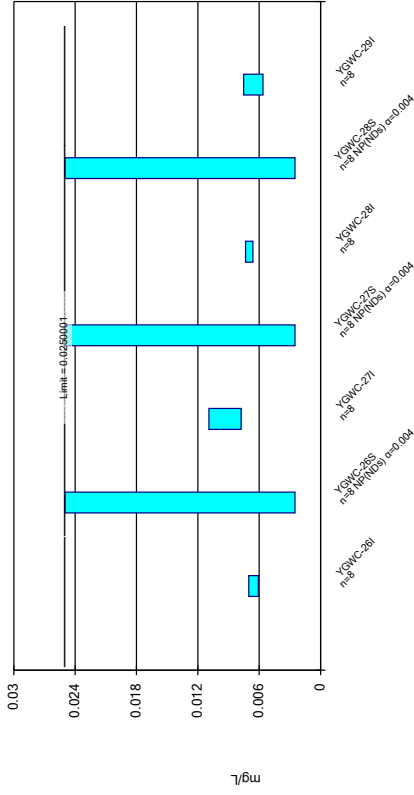
Constituent: Fluoride (mg/L) Analysis Run 6/27/2019 11:02 AM View: Maximum Values in Background

Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWC-26I	YGWC-26S	YGWC-27I	YGWC-27S	YGWC-28I	YGWC-28S	YGWC-29I
6/8/2016	0.094 (J)	<0.2	0.086 (J)	0.12 (J)			
6/9/2016					0.098 (J)	0.16 (J)	0.085 (J)
8/1/2016	0.08 (J)	0.24 (J)	0.14 (J)	0.22 (J)			
8/2/2016					0.38	0.5	0.09 (J)
9/20/2016	0.05 (J)	0.03 (J)	<0.3	0.32			
9/21/2016					0.08 (J)	0.25 (J)	0.09 (J)
11/7/2016	<0.3 (*)	0.44	<0.3 (*)	<0.3 (*)		0.27 (J)	<0.3 (*)
11/8/2016					0.24 (J)		
1/18/2017	0.11 (J)	<0.3 (*)	<0.3 (*)		0.12 (J)	0.34	
1/19/2017				0.25 (J)			<0.3 (*)
2/21/2017	<0.3 (*)	<0.3 (*)				0.27 (J)	
2/22/2017				0.21 (J)	<0.3 (*)		<0.3 (*)
2/23/2017			<0.3 (*)				
5/3/2017		0.16 (J)					
5/5/2017					0.08 (J)	0.2 (J)	
5/8/2017	0.08 (J)		0.07 (J)	0.19 (J)			0.06 (J)
6/30/2017			<0.3 (*)	0.2 (J)			
7/5/2017					0.11 (J)		0.08 (J)
7/7/2017						0.18 (J)	
7/10/2017	<0.3 (*)	<0.3 (*)					
10/5/2017					<0.3 (*)		<0.3 (*)
10/6/2017				<0.3 (*)			
10/9/2017			<0.3 (*)			<0.3 (*)	
10/10/2017	<0.3	<0.3					
Mean	0.1127	0.1744	0.1329	0.2011	0.1564	0.2578	0.1117
Std. Dev.	0.03872	0.1139	0.03155	0.06009	0.09723	0.1097	0.03742
Upper Lim.	0.15	0.44	0.15	0.3205	0.38	0.3637	0.15
Lower Lim.	0.05	0.03	0.07	0.1691	0.08	0.1518	0.06

Parametric and Non-Parametric (NP) Confidence Interval

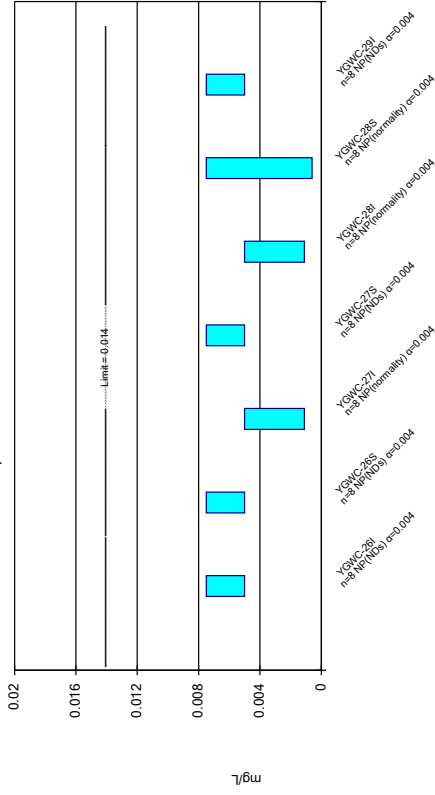
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Lithium Analysis Run 6/27/2019 11:01 AM View: Maximum Values in Background
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Non-Parametric Confidence Interval

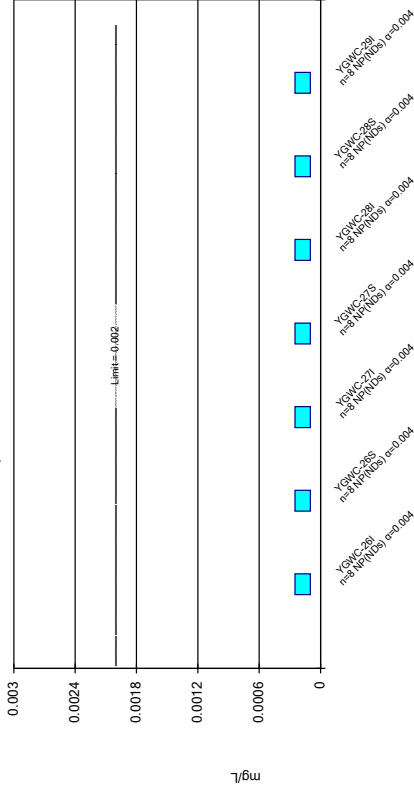
Compliance Limit is not exceeded.



Constituent: Molybdenum Analysis Run 6/27/2019 11:01 AM View: Maximum Values in Background
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Non-Parametric Confidence Interval

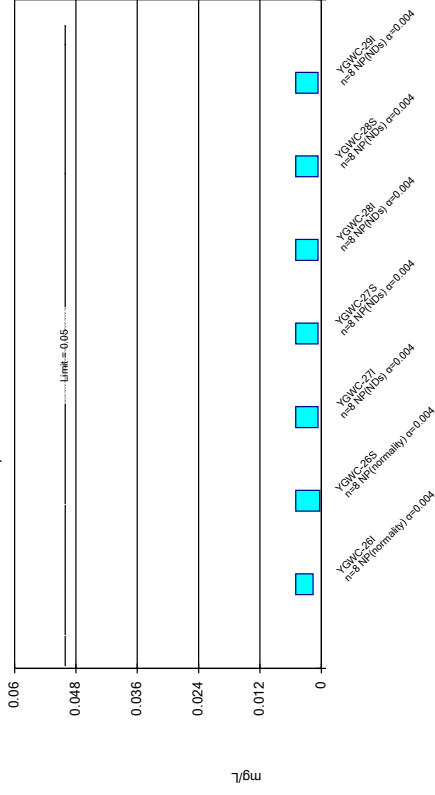
Compliance Limit is not exceeded.



Constituent: Mercury Analysis Run 6/27/2019 11:01 AM View: Maximum Values in Background
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.



Constituent: Selenium Analysis Run 6/27/2019 11:01 AM View: Maximum Values in Background
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Confidence Interval

Constituent: Lithium (mg/L) Analysis Run 6/27/2019 11:02 AM View: Maximum Values in Background

Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWC-26I	YGWC-26S	YGWC-27I	YGWC-27S	YGWC-28I	YGWC-28S	YGWC-29I
6/8/2016	0.007	<0.005	0.0067	<0.005			
6/9/2016					0.0073	<0.005	0.0075
8/1/2016	0.0068 (J)	<0.05	0.008 (J)	<0.05			
8/2/2016					0.0073 (J)	<0.05	0.0078 (J)
9/20/2016	0.0062 (J)	<0.05	0.0111 (J)	<0.05			
9/21/2016					0.0067 (J)	<0.05	0.0074 (J)
11/7/2016	0.0057 (J)	<0.05	0.0097 (J)	<0.05		<0.05	0.0057 (J)
11/8/2016					0.0072 (J)		
1/18/2017	0.0066 (J)	<0.05	0.01 (J)		0.0067 (J)	<0.05	
1/19/2017				<0.05			0.0055 (J)
2/21/2017	0.0067 (J)	<0.05				<0.05	
2/22/2017				<0.05	0.0064 (J)		0.0063 (J)
2/23/2017			0.0099 (J)				
5/3/2017		<0.05					
5/5/2017					0.007 (J)	<0.05	
5/8/2017	0.007 (J)		0.0086 (J)	<0.05			0.0066 (J)
6/30/2017			0.0108 (J)	<0.05			
7/5/2017					0.0072 (J)		0.0058 (J)
7/7/2017						<0.05	
7/10/2017	0.0064 (J)	<0.05					
Mean	0.00655	0.02219	0.00935	0.02219	0.006975	0.02219	0.006575
Std. Dev.	0.0004408	0.007955	0.001484	0.007955	0.000337	0.007955	0.0008972
Upper Lim.	0.007017	0.025	0.01092	0.025	0.007332	0.025	0.007526
Lower Lim.	0.006083	0.0025	0.007777	0.0025	0.006618	0.0025	0.005624

Confidence Interval

Constituent: Molybdenum (mg/L) Analysis Run 6/27/2019 11:02 AM View: Maximum Values in Background

Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWC-26I	YGWC-26S	YGWC-27I	YGWC-27S	YGWC-28I	YGWC-28S	YGWC-29I
6/8/2016	<0.015	<0.015	0.0011 (J)	<0.015			
6/9/2016					0.0011 (J)	<0.015	<0.015
8/1/2016	<0.01	<0.01	0.0018 (J)	<0.01			
8/2/2016					0.0014 (J)	0.0006 (J)	<0.01
9/20/2016	<0.01	<0.01	<0.01	<0.01			
9/21/2016					<0.01	<0.01	<0.01
11/7/2016	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01
11/8/2016					<0.01		
1/18/2017	<0.01	<0.01	<0.01		<0.01	<0.01	
1/19/2017				<0.01			<0.01
2/21/2017	<0.01	<0.01				<0.01	
2/22/2017				<0.01	<0.01		<0.01
2/23/2017			<0.01				
5/3/2017		<0.01					
5/5/2017					0.0014 (J)	0.0007 (J)	
5/8/2017	<0.01		0.0011 (J)	<0.01			<0.01
6/30/2017			<0.01	<0.01			
7/5/2017					0.0014 (J)		<0.01
7/7/2017						<0.01	
7/10/2017	<0.01	<0.01					
Mean	0.005312	0.005312	0.003625	0.005312	0.003162	0.004225	0.005312
Std. Dev.	0.0008839	0.0008839	0.00191	0.0008839	0.001967	0.002369	0.0008839
Upper Lim.	0.0075	0.0075	0.005	0.0075	0.005	0.0075	0.0075
Lower Lim.	0.005	0.005	0.0011	0.005	0.0011	0.0006	0.005

Confidence Interval

Constituent: Selenium (mg/L) Analysis Run 6/27/2019 11:02 AM View: Maximum Values in Background

Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWC-26I	YGWC-26S	YGWC-27I	YGWC-27S	YGWC-28I	YGWC-28S	YGWC-29I
6/8/2016	0.0016	0.0003 (J)	<0.0013	<0.0013			
6/9/2016					<0.0013	<0.0013	<0.0013
8/1/2016	0.0023 (J)	0.0014 (J)	<0.01	<0.01			
8/2/2016					<0.01	<0.01	<0.01
9/20/2016	0.0022 (J)	<0.01	<0.01	<0.01			
9/21/2016					<0.01	0.001 (J)	<0.01
11/7/2016	0.0017 (J)	<0.01	<0.01	<0.01		<0.01	<0.01
11/8/2016					<0.01		
1/18/2017	0.002 (J)	0.0012 (J)	<0.01		<0.01	<0.01	
1/19/2017				<0.01			<0.01
2/21/2017	0.0018 (J)	0.0014 (J)				<0.01	
2/22/2017				<0.01	0.0012 (J)		<0.01
2/23/2017			<0.01				
5/3/2017		<0.01					
5/5/2017					<0.01	<0.01	
5/8/2017	<0.01		<0.01	<0.01			<0.01
6/30/2017			<0.01	<0.01			
7/5/2017					<0.01		<0.01
7/7/2017						<0.01	
7/10/2017	0.002 (J)	<0.01					
Mean	0.002325	0.003037	0.004456	0.004456	0.003981	0.003956	0.004456
Std. Dev.	0.001107	0.002126	0.001538	0.001538	0.001892	0.001935	0.001538
Upper Lim.	0.005	0.005	0.005	0.005	0.005	0.005	0.005
Lower Lim.	0.0016	0.0003	0.00065	0.00065	0.00065	0.00065	0.00065