

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

**Newnan, Georgia  
Coweta County**

**2018 ANNUAL GROUNDWATER MONITORING &  
CORRECTIVE ACTION REPORT**



## CERTIFICATION STATEMENT

This 2018 *Annual Groundwater Monitoring and Corrective Action Report*, Georgia Power Company – Plant Yates – Ash Pond 2 has been prepared in accordance with the United States Environmental Protection Agency (US EPA) coal combustion residual (CCR) rule (40 Code of Federal Regulations (CFR) 257 Subpart D) and the Georgia Environmental Protection Division (GA EPD) Rules for Solid Waste Management 391-3-4-.10 under the supervision of a licensed professional 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 (EPD) Rules for Solid Waste Management 391-3-4-.10, Atlantic Coast Consulting, Inc. (ACC) has prepared this *2018 Annual Groundwater Monitoring and Corrective Action Report* to document assessment groundwater monitoring activities conducted at the Georgia Power Company (GPC) Plant Yates, Ash Pond 2. Semi-annual monitoring and reporting 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).

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. Figure 2, Well Location Map, depicts the general configuration of the Site and the location of the monitoring wells.

This report documents the activities completed to establish the groundwater monitoring program and actions through the 2018 calendar year in accordance with 40 CFR §257.90(e).

### 1.1 Regional Geology and Hydrogeologic Setting

Plant Yates lies is located in the Inner Piedmont 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. At ground surface the units have weathered in place to form a layer of saprolite. 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 from 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. Rock becomes increasing competent with depth and movement of groundwater occurs only in 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.

Hydraulic conductivity is defined as the rate at which water can move through a permeable medium. In situ rising-head and falling-head slug tests were performed at multiple locations on the site. The range in hydraulic conductivity at these locations was very low, indicating a fairly uniform medium across the saprolite and weathered rock horizon (typically range from  $10^{-3}$  to  $10^{-4}$  cm/sec). The values from the field test fall within the standard range of hydraulic conductivity values associated with a silty sand.

The bedrock becomes increasingly more competent with depth and thus, groundwater flow occurs mostly through fractures (i.e. secondary porosity). Recharge to the water-bearing zones in fractured bedrock takes place by seepage through the overlying mantle of residuum/saprolite, or by direct entrance through openings in outcrops.

Groundwater flow across the Site is from both the south-southeast to north-northwest and from northeast to southwest as illustrated in Figure 3, June 2018 Water Table Contour Map and Figure 4, September 2018 Water Table Contour Map.

## 1.2 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. 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). The monitoring well network was certified by a Professional Engineer in Georgia on October 17, 2017, and the certification is maintained in the Operating Record pursuant to §257.90(f)(6).

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 2018. All groundwater sampling was performed in accordance with §257.93. Samples were collected from each well in the certified monitoring system shown on Figure 2.

Pursuant to §257.90(e)(3), Table 2, Groundwater Sampling Event Summary for 2018, presents a summary of groundwater sampling events completed at Plant Yates during 2018. Groundwater events were conducted at AP-2 during March 2018, June 2018 and October 2018. During the March 2018 event, groundwater samples were collected and analyzed for Appendix IV constituents to meet the requirement of §257.95(b). During the June and October 2018 semi-annual sampling events, groundwater samples were collected for both Appendix III and the Appendix IV constituents detected during the March 2018 event at each detection monitoring

well. Results of sampling activities conducted in 2018 are presented in Appendix A, Laboratory Analytical and Field Sampling Reports.

## 2.1 Monitoring Well Installation and Maintenance

There was no change to the groundwater monitoring system in 2018; the network remained the same as in the 2017 (previous) reporting year. Monitoring well-related activities were limited to the following: visual inspection of well conditions prior to sampling, recording the site conditions, and performing exterior maintenance to provide safe access for sampling.

## 2.2 Assessment Monitoring

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.

Pursuant to §257.95(d)(1), the AP-2 monitoring wells were sampled for Appendix IV parameters in March 2018 as the initial assessment monitoring event. Monitoring wells were sampled for Appendix III and detected Appendix IV parameters in June and October 2018. The June 2018 event was conducted within 90 days of obtaining the results from the March 2018 sampling event. A summary of groundwater sampling events completed in 2018 is provided in Table 2.

## 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 2018 monitoring events are summarized in Tables 3A, 3B, and 3C, Summary of Groundwater Elevations – March 2018, June 2018 and September 2018, respectively. Groundwater elevation data was used to develop potentiometric surface elevation contour maps (Figures 3 and 4). The general direction of groundwater flow across the site is towards the west. The groundwater flow patterns observed during the 2018 monitoring events 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 permeability based on previous slug test data, and an estimated effective porosity of 0.20 (based on a review of several sources, including Driscoll, 1986; US EPA, 1989; Freeze and Cherry, 1979). Groundwater flow velocities have been calculated and are tabulated on Tables 4A and 4B, Groundwater Flow Velocity Calculations – June 2018 and September 2018, respectively. The calculated flow velocity ranges between 0.010 to 0.40 feet per day or 4.0 to 153 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:

- $\pm 0.1$  standard units for pH
- $\pm 5\%$  for specific conductance
- DO  $\pm 0.2$  milligrams per liter (mg/L) or  $\pm 10\%$ , whichever is greater. 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 three monitoring events performed in 2018. During the March 2018 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 subsequent respective semi-annual events in June and October 2018 were analyzed for Appendix III and IV parameters detected above the laboratory method detection limit (MDL) during the March 2018 event in accordance with 40 CFR §257.95(b). Parameters not detected above the laboratory MDL included: antimony, beryllium, cadmium, chromium, lead, mercury, selenium, and thallium. Analytical methods used for groundwater sample analysis are listed on the analytical laboratory reports included in Appendix A.

Analytical data collected in respective 2018 monitoring events (March 2018, June 2018 and September 2018) are summarized in Table 5A, Summary of Groundwater Analytical Data –

March 2018, Table 5B, Summary of Groundwater Analytical Data – June 2018, and Table 5C, Summary of Groundwater Analytical Data – September 2018.

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 assessment 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 Groundwater Stats Consulting, LLC. (GSC), in accordance with 40 CFR §257.93(f) using methodology presented in *Statistical Analysis of Groundwater Data at RCRA Facilities, Unified Guidance*, March 2009, US EPA 530/R-09-007 (US EPA, 2009). To develop the statistical method, analytical data collected during the background period were evaluated and used to develop statistical limits for each Appendix III parameter. 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 proprietary 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.

#### 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 6, 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 events in June and October 2018 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.

### **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 groundwater protection standard.

### **4.2.2 Second 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% LCL exceeded the respective groundwater protection standard.

## **5.0 MONITORING PROGRAM STATUS**

In accordance with 40 CFR §257.94(e), an assessment monitoring program was implemented in January 2018. 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 first half of 2019.

## **7.0 REFERENCES**

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

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

## TABLES

**Table 1A**  
**Monitoring Network Well Summary**

Well ID	Installation Date (mm/dd/yyyy)	Bottom Depth (ft BTOC)	Bottom Elevation (ft MSL)	Depth to Top of Screen (ft MSL)	Top of Screen Elevation (ft MSL)	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)	Hydraulic Location
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**  
**Groundwater Sampling Event Summary for 2018**

Well	Hydraulic Location	Mar. 27-30, 2018	Jun. 5-13, 2018	Oct. 1-3, 2018
Purpose of Sampling Event		Initial Assessment	First Semi-Annual	Second Semi-Annual
YGWA-1I	Upgradient	Initial	A-01	A-02
YGWA-1D	Upgradient	Initial	A-01	A-02
YGWA-2I	Upgradient	Initial	A-01	A-02
YGWA-3I	Upgradient	Initial	A-01	A-02
YGWA-3D	Upgradient	Initial	A-01	A-02
YGWA-14S	Downgradient	Initial	A-01	A-02
YGWA-30I	Downgradient	Initial	A-01	A-02
YGWC-26S	Downgradient	Initial	A-01	A-02
YGWC-26I	Downgradient	Initial	A-01	A-02
YGWC-27S	Downgradient	Initial	A-01	A-02
YGWC-27I	Downgradient	Initial	A-01	A-02
YGWC-28S	Downgradient	Initial	A-01	A-02
YGWC-28I	Downgradient	Initial	A-01	A-02
YGWC-29I	Downgradient	Initial	A-01	A-02

Notes:

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

**Table 3A**  
**Summary of Groundwater Elevations**  
**March 2018**

Well ID	TOC Elevation (ft MSL)	Depth-to- Water (ft BTOC)	Groundwater Elevation (ft MSL)
YGWA-1I	836.48	37.91	798.57
YGWA-1D	837.13	50.62	786.51
YGWA-2I	866.15	45.34	820.81
YGWA-3I	796.33	52.63	743.70
YGWA-3D	796.70	31.97	764.73
YGWA-14S	748.77	17.01	731.76
YGWA-30I	762.59	36.46	726.13
YGWC-26S	716.20	23.06	693.14
YGWC-26I	715.91	19.07	696.84
YGWC-27S	716.66	26.14	690.52
YGWC-27I	716.23	25.56	690.67
YGWC-28S	717.92	21.68	696.24
YGWC-28I	717.89	22.24	695.65
YGWC-29I	717.24	25.23	692.01
PZ-1S	836.74	32.45	804.29
PZ-3S	796.21	36.71	759.50
PZ-13S	807.89	37.30	770.59
PZ-13I	807.72	40.19	767.53
PZ-14I	749.11	18.43	730.68
PZ-25S	766.50	35.44	731.06
PZ-25I	766.25	36.63	729.62
PZ-31S	738.79	15.52	723.27

Notes:

1. ft BTOC indicates feet below top of casing.
2. ft MSL indicates feet mean sea level.
3. Depths to water measured March 26-27, 2018.

**Table 3B**  
**Summary of Groundwater Elevations**  
**June 2018**

Well ID	TOC Elevation (ft MSL)	Depth-to- Water (ft BTOC)	Groundwater Elevation (ft MSL)
YGWA-1I	836.48	36.30	800.18
YGWA-1D	837.13	49.72	787.41
YGWA-2I	866.15	44.20	821.95
YGWA-3I	796.33	53.55	742.78
YGWA-3D	796.70	31.85	764.85
YGWA-14S	748.77	17.55	731.22
YGWA-30I	762.59	36.38	726.21
YGWC-26S	716.20	19.61	696.59
YGWC-26I	715.91	22.90	693.01
YGWC-27S	716.66	24.50	692.16
YGWC-27I	716.23	24.96	691.27
YGWC-28S	717.92	21.26	696.66
YGWC-28I	717.89	21.66	696.23
YGWC-29I	717.24	25.46	691.78
PZ-1S	836.74	31.30	805.44
PZ-3S	796.21	35.51	760.70
PZ-13S	807.89	36.44	771.45
PZ-13I	807.72	39.14	768.58
PZ-14I	749.11	18.98	730.13
PZ-25S	766.50	35.64	730.86
PZ-25I	766.25	36.92	729.33
PZ-31S	738.79	15.88	722.91

Notes:

4. ft BTOC indicates feet below top of casing.
5. ft MSL indicates feet mean sea level.
6. Depths to water measured June 4-5, 2018.

**Table 3C**  
**Summary of Groundwater Elevations**  
**September 2018**

Well ID	TOC Elevation (ft MSL)	Depth-to- Water (ft BTOC)	Groundwater Elevation (ft MSL)
YGWA-1I	836.48	36.65	799.83
YGWA-1D	837.13	49.38	787.75
YGWA-2I	866.15	44.57	821.58
YGWA-3I	796.33	53.13	743.20
YGWA-3D	796.70	32.20	764.50
YGWA-14S	748.77	18.33	730.44
YGWA-30I	762.59	37.03	725.56
YGWC-26S	716.20	21.31	694.89
YGWC-26I	715.91	24.87	691.04
YGWC-27S	716.66	27.83	688.83
YGWC-27I	716.23	28.50	687.73
YGWC-28S	717.92	23.08	694.84
YGWC-28I	717.89	23.79	694.10
YGWC-29I	717.24	27.17	690.07
PZ-1S	836.74	31.68	805.06
PZ-3S	796.21	35.16	761.05
PZ-13S	807.89	35.86	772.03
PZ-13I	807.72	39.10	768.62
PZ-14I	749.11	19.66	729.45
PZ-25S	766.50	36.20	730.30
PZ-25I	766.25	37.43	728.82
PZ-31S	738.79	16.05	722.74

Notes:

1. ft BTOC indicates feet below top of casing.
2. ft MSL indicates feet mean sea level.
3. Depths to water measured September 17, 2018.

**Table 4A**  
**GROUNDWATER FLOW VELOCITY CALCULATIONS**  
**June 2018**

Equation

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

k = hydraulic conductivity  
dh/dl = hydraulic gradient  
P<sub>e</sub> = 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	
$i_1 = 0.005$ unitless $i_2 = 0.009$ unitless $i_{\text{avg}} = 0.007$ 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

$$v_{\min} = \frac{(0.28)(0.007)}{0.20}$$

$$v_{\min} = 0.010 \text{ ft/day, or } 3.6 \text{ ft/year}$$

Maximum Flow Velocity

$$v_{\max} = \frac{(10)(0.007)}{0.20}$$

$$v_{\max} = 0.4 \text{ ft/day, or } 137 \text{ ft/year}$$

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 4B**  
**GROUNDWATER FLOW VELOCITY CALCULATIONS**  
**September 2018**

Equation

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

k = hydraulic conductivity  
dh/dl = hydraulic gradient  
P<sub>e</sub> = effective porosity

Values Used in Calculation

Value	Source
k <sub>max</sub> = 3.7E-03 cm/sec 10 ft/day	See note 1.
k <sub>min</sub> = 9.7E-05 cm/sec 0.28 ft/day	
i <sub>1</sub> = 0.006 unitless i <sub>2</sub> = 0.010 unitless i <sub>avg</sub> = 0.008 unitless	Hydraulic gradient from YGWA-20S to YGWC-33S YGWC-33S to YGWC-36 Average
P <sub>e</sub> = 0.20 unitless	See note 2.

Minimum Flow Velocity

$$v_{\min} = \frac{(0.28)(0.008)}{0.20}$$

$$v_{\min} = 0.011 \text{ ft/day, or } 4 \text{ ft/year}$$

Maximum Flow Velocity

$$v_{\max} = \frac{(10)(0.008)}{0.20}$$

$$v_{\max} = 0.4 \text{ ft/day, or } 153 \text{ ft/year}$$

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**  
**March 2018**

Substance	MCL/ (SMCL)	YGWA-1I	YGWA-1D	YGWA-2I	YGWA-3I	YGWA-3D	YGWA-14S	YGWA-30I	YGWC-26S	
		3/27/2018	3/29/2018	3/28/2018	3/28/2018	3/28/2018	3/27/2018	3/27/2018	3/30/2018	
<b>Appendix IV</b>	<b>Antimony</b>	<b>0.006</b>	ND	ND	ND	ND	ND	ND	ND	
	<b>Arsenic</b>	<b>0.01</b>	ND	ND (0.0017 J)	ND (0.0013 J)	ND	ND	ND	ND	
	<b>Barium</b>	<b>2</b>	ND	ND	ND	ND	ND	ND	0.026	
	<b>Beryllium</b>	<b>0.004</b>	ND	ND	ND	ND	ND	ND	ND	
	<b>Cadmium</b>	<b>0.005</b>	ND	ND	ND	ND	ND	ND	ND	
	<b>Chromium</b>	<b>0.1</b>	ND	ND	ND	ND	ND	ND	ND	
	<b>Cobalt</b>	<b>N/R</b>	ND	ND	ND	ND	ND	0.023	ND	
	<b>Fluoride</b>	<b>4</b>	ND	ND	0.31	ND	0.56	ND	ND	0.35
	<b>Lead</b>	<b>0.015</b>	ND	ND	ND	ND	ND	ND	ND	ND
	<b>Lithium</b>	<b>N/R</b>	ND (0.0023 J)	ND (0.0078 J)	ND (0.0025 J)	ND (0.013 J)	ND (0.020 J)	ND	ND (0.0011 J)	ND
	<b>Mercury</b>	<b>0.002</b>	ND	ND	ND	ND	ND	ND	ND	ND
	<b>Molybdenum</b>	<b>N/R</b>	ND (0.0074 J)	ND (0.0076 J)	ND (0.0038 J)	ND (0.0025 J)	0.011	ND	ND	ND
	<b>Radium</b>	<b>5</b>	0.390 U	0.503 U	0.412 U	0.650 U	3.00	0.189 U	0.310 U	0.501 U
	<b>Selenium</b>	<b>0.05</b>	ND	ND	ND	ND	ND	ND	ND	ND
<b>Thallium</b>	<b>0.002</b>	ND	ND	ND	ND	ND	ND	ND	ND	

Notes:

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

**Table 5A**  
**Summary of Groundwater Analytical Data**  
**March 2018**

Substance	MCL/ (SMCL)	YGWC-26I	YGWC-27S	YGWC-27I	YGWC-28S	YGWC-28I	YGWC-29I	
		3/30/2018	3/29/2018	3/29/2018	3/30/2018	3/30/2018	3/29/2018	
<b>Appendix IV</b>	<b>Antimony</b>	<b>0.006</b>	ND	ND	ND	ND	ND	
	<b>Arsenic</b>	<b>0.01</b>	ND	ND	ND (0.00060 J)	ND (0.00069 J)	ND	
	<b>Barium</b>	<b>2</b>	0.063	0.097	0.062	0.20	0.087	0.055
	<b>Beryllium</b>	<b>0.004</b>	ND	ND	ND	ND	ND	ND
	<b>Cadmium</b>	<b>0.005</b>	ND	ND	ND	ND	ND	ND
	<b>Chromium</b>	<b>0.1</b>	ND	ND	ND	ND	ND	ND
	<b>Cobalt</b>	<b>N/R</b>	ND	ND	0.051	ND	ND	ND
	<b>Fluoride</b>	<b>4</b>	ND	0.49	ND	ND	ND	ND
	<b>Lead</b>	<b>0.015</b>	ND	ND	ND	ND	ND	ND
	<b>Lithium</b>	<b>N/R</b>	ND (0.0068 J)	ND	ND (0.011 J)	ND	ND (0.0070 J)	ND (0.0049 J)
	<b>Mercury</b>	<b>0.002</b>	ND	ND	ND	ND	ND	ND
	<b>Molybdenum</b>	<b>N/R</b>	ND	ND	ND	ND	ND	ND
	<b>Radium</b>	<b>5</b>	0.230 U	0.916 U	1.41	0.195 U	0.948 U	1.37
	<b>Selenium</b>	<b>0.05</b>	ND	ND	ND	ND	ND	ND
<b>Thallium</b>	<b>0.002</b>	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**  
**June 2018**

Substance	MCL/ (SMCL)	YGWA-1I	YGWA-1D	YGWA-2I	YGWA-3I	YGWA-3D	YGWA-14S	YGWA-30I	YGWC-26S	
		6/6/2018	6/5/2018	6/7/2018	6/8/2018	6/7/2018	6/8/2018	6/14/2018	6/13/2018	
Appendix III	Boron	N/R	ND	ND (0.0052 J)	ND	ND	ND (0.0040 J)	ND (0.013 J)	ND (0.014 J)	0.67
	Calcium	N/R	2.3	ND (15.2 J)	25.0	ND (21.9 J)	29.1	1.1	1.1	12.5
	Chloride	(250)	1.4	1.1	1.0	1.2	1.2	3.4	2.0	14.2
	Fluoride	4	ND	ND (0.055 J)	ND (0.11 J)	ND (0.20 J)	0.48	ND	ND	ND (0.044 J)
	Sulfate	(250)	4.4	6.4	8.8	9.6	6.7	6.4	1.1	93.3
	TDS	(500)	96.0	127	146	158	95.0	114	59.0	196
Appendix IV	Arsenic	0.01	ND	ND (0.0013 J)	ND (0.00082 J)	ND	ND	ND	ND	ND
	Barium	2	ND (0.0082 J)	ND (0.0069 J)	ND (0.0037 J)	ND (0.0034 J)	ND (0.0068 J)	ND (0.0070 J)	ND (0.0070 J)	0.026
	Cobalt	N/R	ND	ND	ND	ND	ND	ND	0.023	ND (0.0017 J)
	Lithium	N/R	ND (0.0024 J)	ND (0.0079 J)	ND (0.0017 J)	ND (0.012 J)	ND (0.020 J)	ND	ND (0.0012 J)	ND
	Molybdenum	N/R	ND (0.0073 J)	ND (0.0092 J)	ND (0.0040 J)	ND (0.0041 J)	0.011	ND	ND	ND
	Radium	5	2.80	0.771 U	0.730 U	1.89	2.79	0.218 U	0.608 U	1.09 U

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**  
**June 2018**

Substance	MCL/ (SMCL)	YGWC-26I	YGWC-27S	YGWC-27I	YGWC-28S	YGWC-28I	YGWC-29I	
		6/13/2018	6/12/2018	6/13/2018	6/12/2018	6/12/2018	6/11/2018	
Appendix III	Boron	N/R	0.86	1.6	2.2	2.9	2.8	0.90
	Calcium	N/R	15.5	36.2	29.4	26.4	33	12.1
	Chloride	(250)	18.1	19.8	13.1	19.3	17.6	13.6
	Fluoride	4	ND (0.088 J)	ND (0.037 J)	ND	ND (0.13 J)	ND	ND
	Sulfate	(250)	76.5	18.1	6.1	2.9	8.2	30.6
	TDS	(500)	228	208	219	243	234	156
Appendix IV	Arsenic	0.01	ND	ND	ND	ND (0.00075 J)	ND	ND
	Barium	2	0.064	0.095	0.063	0.21	0.088	0.068
	Cobalt	N/R	ND	ND (0.0025 J)	0.092	ND (0.0011 J)	ND	ND
	Lithium	N/R	ND (0.0071 J)	ND	ND (0.014 J)	ND	ND (0.0073 J)	ND (0.0064 J)
	Molybdenum	N/R	ND	ND	ND	ND	ND	ND
	Radium	5	0.427 U	0.666 U	3.69	1.02 U	0.869 U	1.27 U

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 5C**  
**Summary of Groundwater Analytical Data**  
**October 2018**

Substance	MCL/ (SMCL)	YGWA-1I	YGWA-1D	YGWA-2I	YGWA-3I	YGWA-3D	YGWA-14S	YGWA-30I	YGWC-26S	
		10/1/2018	10/1/2018	10/1/2018	10/1/2018	10/1/2018	10/1/2018	10/2/2018	10/2/2018	
Appendix III	Boron	N/R	ND (0.0049 J)	ND (0.021 J)	ND	ND	ND	ND (0.015 J)	ND	0.62
	Calcium	N/R	1.8	15.1	25.0	19.7	26.9	0.99	1.1	ND (12.4 J)
	Chloride	(250)	1.4	1.1	1.1	1.2	1.5	3.8	1.8	14.0
	Fluoride	4	ND	ND	ND	ND	0.44	ND	ND	ND
	Sulfate	(250)	4.0	5.6	9.1	9.1	7.1	6.8	1.0	99.0
	TDS	(500)	60.0	117	155	138	165	50.0	57.0	191
Appendix IV	Arsenic	0.01	ND	ND (0.0016 J)	ND (0.0011 J)	ND	ND	ND	ND	ND
	Barium	2	ND (0.0084 J)	ND (0.0062 J)	ND (0.0038 J)	ND (0.0034 J)	ND (0.0065 J)	ND (0.0070 J)	ND (0.0069 J)	0.026
	Cobalt	N/R	ND (0.00059 J)	ND	ND	ND	ND	ND	0.022	ND (0.0016 J)
	Lithium	N/R	ND (0.0023 J)	ND (0.0053 J)	ND	ND (0.011 J)	ND (0.020 J)	ND	ND	ND
	Molybdenum	N/R	ND (0.0076 J)	ND (0.0085 J)	ND (0.0042 J)	ND (0.0037 J)	0.012	ND	ND	ND
	Radium	5	1.06 U	0.783 U	0.756 U	1.58	3.14	1.24	0.970 U	0.747 U

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 5C**  
**Summary of Groundwater Analytical Data**  
**October 2018**

Substance	MCL/ (SMCL)	YGWC-26I	YGWC-27S	YGWC-27I	YGWC-28S	YGWC-28I	YGWC-29I	
		10/2/2018	10/2/2018	10/2/2018	10/3/2018	10/3/2018	10/2/2018	
Appendix III	Boron	N/R	0.93	1.4	1.9	2.4	2.3	0.81
	Calcium	N/R	14.7	39.1	29.2	25.8	33	ND (11.7 J)
	Chloride	(250)	18.3	19.9	13.8	20.2	17.7	13.4
	Fluoride	4	ND	ND	ND	0.31	ND	ND
	Sulfate	(250)	83.9	20.2	6.1	2.1	8.0	30.8
	TDS	(500)	227	206	227	237	232	154
Appendix IV	Arsenic	0.01	ND	ND	ND	ND (0.00070 J)	ND	ND
	Barium	2	0.066	0.10	0.062	0.22	0.092	0.067
	Cobalt	N/R	ND	ND (0.0023 J)	0.078	ND (0.0013 J)	ND	ND
	Lithium	N/R	ND (0.0064 J)	ND	ND (0.012 J)	ND	ND (0.0069 J)	ND (0.0060 J)
	Molybdenum	N/R	ND	ND	ND	ND	ND	ND
	Radium	5	1.41 U	0.774 U	4.50	0.713 U	0.864 U	0.442 U

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).
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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**  
**Summary of Background Levels and Groundwater Protection Standards**

Constituent	Units	Site Background	Federal GWPS	State GWPS
Arsenic	mg/L	0.0025	0.010	0.010
Barium	mg/L	0.011	2	2
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
Molybdenum	mg/L	0.014	0.1	0.014
Radium	pCi/L	3.87	5	5

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



P:\Industrial\054 - Southern Company\110 - Groundwater Consulting Services 2018 - 2021\Plant Yates\2 - Annual COR Reports\2018\Ash Pond 2\Figures\Plant Yates Pond 2 Well Location Map.dwg 2018-12-10 MATT MALONE



**LEGEND**

EXISTING	DESCRIPTION
YGWA-21	GROUNDWATER MONITORING WELL (AP-2)
PZ-131	NON-NETWORK LOCATION (AP-2)
YGWC-43	GROUNDWATER MONITORING WELL (NOT RELATED TO AP-2)
PZ-41	NON-NETWORK LOCATION (NOT RELATED TO AP-2)



**ATLANTIC COAST CONSULTING, INC.**  
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PROJECT:  
 PLANT YATES  
 ASH POND 2

708 DYER ROAD  
 NEWNAN, GEORGIA

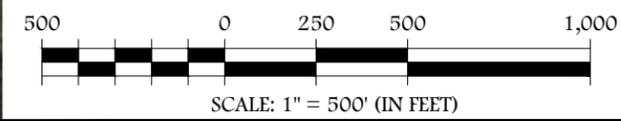
REVISIONS


Drawn by: MM	Checked by: EP
PROJECT NUMBER: I054-110 December 2018	

**WELL LOCATION MAP**

FIGURE 2

NOTE:  
 1. AERIAL PHOTOGRAPH DATED NOVEMBER 2012.







# APPENDICES

## APPENDIX A

# LABORATORY ANALYTICAL AND FIELD SAMPLING REPORTS

April 18, 2018

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

RE: Project: Plant Yates Ash Ponds  
Pace Project No.: 263336

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on March 28, 2018. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,



Betsy McDaniel  
betsy.mcdaniel@pacelabs.com  
(770)734-4200  
Project Manager

Enclosures

cc: Maria Padilla, Georgia Power  
Chris Parker, Atlantic Coast Consulting  
Evan Perry, Atlantic Coast Consulting  
Lauren Petty, Southern Company Services, Inc.



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: Plant Yates Ash Ponds  
Pace Project No.: 263336

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### Atlanta Certification IDs

110 Technology Parkway Peachtree Corners, GA 30092	North Carolina Certification #: 381
Florida DOH Certification #: E87315	South Carolina Certification #: 98011001
Georgia DW Inorganics Certification #: 812	Texas Certification #: T104704397-08-TX
Georgia DW Microbiology Certification #: 812	Virginia Certification #: 460204

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### Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601	Missouri Certification #: 235
ANAB DOD-ELAP Rad Accreditation #: L2417	Montana Certification #: Cert0082
Alabama Certification #: 41590	Nebraska Certification #: NE-OS-29-14
Arizona Certification #: AZ0734	Nevada Certification #: PA014572018-1
Arkansas Certification	New Hampshire/TNI Certification #: 297617
California Certification #: 04222CA	New Jersey/TNI Certification #: PA051
Colorado Certification #: PA01547	New Mexico Certification #: PA01457
Connecticut Certification #: PH-0694	New York/TNI Certification #: 10888
Delaware Certification	North Carolina Certification #: 42706
EPA Region 4 DW Rad	North Dakota Certification #: R-190
Florida/TNI Certification #: E87683	Ohio EPA Rad Approval: #41249
Georgia Certification #: C040	Oregon/TNI Certification #: PA200002-010
Guam Certification	Pennsylvania/TNI Certification #: 65-00282
Hawaii Certification	Puerto Rico Certification #: PA01457
Idaho Certification	Rhode Island Certification #: 65-00282
Illinois Certification	South Dakota Certification
Indiana Certification	Tennessee Certification #: 02867
Iowa Certification #: 391	Texas/TNI Certification #: T104704188-17-3
Kansas/TNI Certification #: E-10358	Utah/TNI Certification #: PA014572017-9
Kentucky Certification #: KY90133	USDA Soil Permit #: P330-17-00091
KY WW Permit #: KY0098221	Vermont Dept. of Health: ID# VT-0282
KY WW Permit #: KY0000221	Virgin Island/PADEP Certification
Louisiana DHH/TNI Certification #: LA180012	Virginia/VELAP Certification #: 9526
Louisiana DEQ/TNI Certification #: 4086	Washington Certification #: C868
Maine Certification #: 2017020	West Virginia DEP Certification #: 143
Maryland Certification #: 308	West Virginia DHHR Certification #: 9964C
Massachusetts Certification #: M-PA1457	Wisconsin Approve List for Rad
Michigan/PADEP Certification #: 9991	Wyoming Certification #: 8TMS-L

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## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: Plant Yates Ash Ponds

Pace Project No.: 263336

Lab ID	Sample ID	Matrix	Date Collected	Date Received
263336001	YGWA-14S	Water	03/27/18 13:40	03/28/18 17:15
263336002	YGWA-14S	Water	03/27/18 13:40	03/28/18 17:15
263336003	YGWA-30I	Water	03/27/18 14:40	03/28/18 17:15
263336004	YGWA-30I	Water	03/27/18 14:40	03/28/18 17:15
263336005	YGWA-1I	Water	03/27/18 15:35	03/28/18 17:15
263336006	YGWA-1I	Water	03/27/18 15:35	03/28/18 17:15
263336007	YGWA-2I	Water	03/28/18 10:37	03/28/18 17:15
263336008	YGWA-2I	Water	03/28/18 10:37	03/28/18 17:15
263336009	YGWA-3D	Water	03/28/18 12:50	03/28/18 17:15
263336010	YGWA-3D	Water	03/28/18 12:50	03/28/18 17:15
263336011	Dup-1	Water	03/28/18 00:00	03/28/18 17:15
263336012	Dup-1	Water	03/28/18 00:00	03/28/18 17:15

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### SAMPLE ANALYTE COUNT

Project: Plant Yates Ash Ponds  
Pace Project No.: 263336

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
263336001	YGWA-14S	EPA 6020B	CSW	12	PASI-GA
		EPA 7470A	AAP	1	PASI-GA
		EPA 300.0	RLC	1	PASI-GA
263336002	YGWA-14S	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	RMK	1	PASI-PA
263336003	YGWA-30I	EPA 6020B	CSW	12	PASI-GA
		EPA 7470A	AAP	1	PASI-GA
		EPA 300.0	RLC	1	PASI-GA
263336004	YGWA-30I	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	RMK	1	PASI-PA
263336005	YGWA-1I	EPA 6020B	CSW	12	PASI-GA
		EPA 7470A	AAP	1	PASI-GA
		EPA 300.0	RLC	1	PASI-GA
263336006	YGWA-1I	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	RMK	1	PASI-PA
263336007	YGWA-2I	EPA 6020B	CSW	12	PASI-GA
		EPA 7470A	AAP	1	PASI-GA
		EPA 300.0	RLC	1	PASI-GA
263336008	YGWA-2I	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	RMK	1	PASI-PA
263336009	YGWA-3D	EPA 6020B	CSW	12	PASI-GA
		EPA 7470A	AAP	1	PASI-GA
		EPA 300.0	RLC	1	PASI-GA
263336010	YGWA-3D	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	RMK	1	PASI-PA
263336011	Dup-1	EPA 6020B	CSW	12	PASI-GA
		EPA 7470A	AAP	1	PASI-GA
		EPA 300.0	RLC	1	PASI-GA
263336012	Dup-1	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	RMK	1	PASI-PA

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## ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds

Pace Project No.: 263336

<b>Sample: YGWA-14S</b>		<b>Lab ID: 263336001</b>		Collected: 03/27/18 13:40		Received: 03/28/18 17:15		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6020B MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Antimony	ND	mg/L	0.0030	0.00078	1	04/02/18 11:50	04/03/18 13:37	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	04/02/18 11:50	04/03/18 13:37	7440-38-2	
Barium	ND	mg/L	0.010	0.00078	1	04/02/18 11:50	04/03/18 13:37	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	04/02/18 11:50	04/03/18 13:37	7440-41-7	
Cadmium	ND	mg/L	0.0010	0.000093	1	04/02/18 11:50	04/03/18 13:37	7440-43-9	
Chromium	ND	mg/L	0.010	0.0016	1	04/02/18 11:50	04/03/18 13:37	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	04/02/18 11:50	04/03/18 13:37	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	04/02/18 11:50	04/03/18 13:37	7439-92-1	
Lithium	ND	mg/L	0.050	0.00097	1	04/02/18 11:50	04/03/18 13:37	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	04/02/18 11:50	04/03/18 13:37	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	04/02/18 11:50	04/03/18 13:37	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	04/02/18 11:50	04/03/18 13:37	7440-28-0	
<b>7470 Mercury</b>		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00050	0.000036	1	04/06/18 13:55	04/06/18 16:32	7439-97-6	
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0							
Fluoride	ND	mg/L	0.30	0.029	1		04/02/18 15:33	16984-48-8	

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### ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds

Pace Project No.: 263336

Sample: YGWA-30I		Lab ID: 263336003		Collected: 03/27/18 14:40		Received: 03/28/18 17:15		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
<b>6020B MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00078	1	04/02/18 11:50	04/03/18 13:43	7440-36-0		
Arsenic	ND	mg/L	0.0050	0.00057	1	04/02/18 11:50	04/03/18 13:43	7440-38-2		
Barium	ND	mg/L	0.010	0.00078	1	04/02/18 11:50	04/03/18 13:43	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000050	1	04/02/18 11:50	04/03/18 13:43	7440-41-7		
Cadmium	ND	mg/L	0.0010	0.000093	1	04/02/18 11:50	04/03/18 13:43	7440-43-9		
Chromium	ND	mg/L	0.010	0.0016	1	04/02/18 11:50	04/03/18 13:43	7440-47-3		
Cobalt	<b>0.023</b>	mg/L	0.010	0.00052	1	04/02/18 11:50	04/03/18 13:43	7440-48-4		
Lead	ND	mg/L	0.0050	0.00027	1	04/02/18 11:50	04/03/18 13:43	7439-92-1		
Lithium	<b>0.0011J</b>	mg/L	0.050	0.00097	1	04/02/18 11:50	04/03/18 13:43	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.0019	1	04/02/18 11:50	04/03/18 13:43	7439-98-7		
Selenium	ND	mg/L	0.010	0.0014	1	04/02/18 11:50	04/03/18 13:43	7782-49-2		
Thallium	ND	mg/L	0.0010	0.00014	1	04/02/18 11:50	04/03/18 13:43	7440-28-0		
<b>7470 Mercury</b>		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.000036	1	04/06/18 13:55	04/06/18 16:41	7439-97-6		
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0								
Fluoride	ND	mg/L	0.30	0.029	1		04/02/18 16:35	16984-48-8		

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### ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds

Pace Project No.: 263336

Sample: YGWA-1I		Lab ID: 263336005		Collected: 03/27/18 15:35		Received: 03/28/18 17:15		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6020B MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Antimony	ND	mg/L	0.0030	0.00078	1	04/02/18 11:50	04/03/18 13:48	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	04/02/18 11:50	04/03/18 13:48	7440-38-2	
Barium	ND	mg/L	0.010	0.00078	1	04/02/18 11:50	04/03/18 13:48	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	04/02/18 11:50	04/03/18 13:48	7440-41-7	
Cadmium	ND	mg/L	0.0010	0.000093	1	04/02/18 11:50	04/03/18 13:48	7440-43-9	
Chromium	ND	mg/L	0.010	0.0016	1	04/02/18 11:50	04/03/18 13:48	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	04/02/18 11:50	04/03/18 13:48	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	04/02/18 11:50	04/03/18 13:48	7439-92-1	
Lithium	<b>0.0023J</b>	mg/L	0.050	0.00097	1	04/02/18 11:50	04/03/18 13:48	7439-93-2	
Molybdenum	<b>0.0074J</b>	mg/L	0.010	0.0019	1	04/02/18 11:50	04/03/18 13:48	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	04/02/18 11:50	04/03/18 13:48	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	04/02/18 11:50	04/03/18 13:48	7440-28-0	
<b>7470 Mercury</b>		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00050	0.000036	1	04/06/18 13:55	04/06/18 16:44	7439-97-6	
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0							
Fluoride	ND	mg/L	0.30	0.029	1		04/02/18 16:55	16984-48-8	

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### ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds

Pace Project No.: 263336

Sample: YGWA-2I		Lab ID: 263336007		Collected: 03/28/18 10:37		Received: 03/28/18 17:15		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6020B MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Antimony	ND	mg/L	0.0030	0.00078	1	04/02/18 11:50	04/03/18 13:54	7440-36-0	
Arsenic	<b>0.0013J</b>	mg/L	0.0050	0.00057	1	04/02/18 11:50	04/03/18 13:54	7440-38-2	
Barium	ND	mg/L	0.010	0.00078	1	04/02/18 11:50	04/03/18 13:54	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	04/02/18 11:50	04/03/18 13:54	7440-41-7	
Cadmium	ND	mg/L	0.0010	0.000093	1	04/02/18 11:50	04/03/18 13:54	7440-43-9	
Chromium	ND	mg/L	0.010	0.0016	1	04/02/18 11:50	04/03/18 13:54	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	04/02/18 11:50	04/03/18 13:54	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	04/02/18 11:50	04/03/18 13:54	7439-92-1	
Lithium	<b>0.0025J</b>	mg/L	0.050	0.00097	1	04/02/18 11:50	04/03/18 13:54	7439-93-2	
Molybdenum	<b>0.0038J</b>	mg/L	0.010	0.0019	1	04/02/18 11:50	04/03/18 13:54	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	04/02/18 11:50	04/03/18 13:54	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	04/02/18 11:50	04/03/18 13:54	7440-28-0	
<b>7470 Mercury</b>		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00050	0.000036	1	04/06/18 13:55	04/06/18 16:46	7439-97-6	
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0							
Fluoride	<b>0.31</b>	mg/L	0.30	0.029	1		04/02/18 17:16	16984-48-8	

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### ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds

Pace Project No.: 263336

Sample: YGWA-3D		Lab ID: 263336009		Collected: 03/28/18 12:50		Received: 03/28/18 17:15		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
<b>6020B MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00078	1	04/02/18 11:50	04/03/18 14:00	7440-36-0		
Arsenic	ND	mg/L	0.0050	0.00057	1	04/02/18 11:50	04/03/18 14:00	7440-38-2		
Barium	ND	mg/L	0.010	0.00078	1	04/02/18 11:50	04/03/18 14:00	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000050	1	04/02/18 11:50	04/03/18 14:00	7440-41-7		
Cadmium	ND	mg/L	0.0010	0.000093	1	04/02/18 11:50	04/03/18 14:00	7440-43-9		
Chromium	ND	mg/L	0.010	0.0016	1	04/02/18 11:50	04/03/18 14:00	7440-47-3		
Cobalt	ND	mg/L	0.010	0.00052	1	04/02/18 11:50	04/03/18 14:00	7440-48-4		
Lead	ND	mg/L	0.0050	0.00027	1	04/02/18 11:50	04/03/18 14:00	7439-92-1		
Lithium	<b>0.020J</b>	mg/L	0.050	0.00097	1	04/02/18 11:50	04/03/18 14:00	7439-93-2		
Molybdenum	<b>0.011</b>	mg/L	0.010	0.0019	1	04/02/18 11:50	04/03/18 14:00	7439-98-7		
Selenium	ND	mg/L	0.010	0.0014	1	04/02/18 11:50	04/03/18 14:00	7782-49-2		
Thallium	ND	mg/L	0.0010	0.00014	1	04/02/18 11:50	04/03/18 14:00	7440-28-0		
<b>7470 Mercury</b>		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.000036	1	04/06/18 13:55	04/06/18 16:49	7439-97-6		
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0								
Fluoride	<b>0.56</b>	mg/L	0.30	0.029	1		04/02/18 17:37	16984-48-8		

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### ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds  
Pace Project No.: 263336

Sample: Dup-1		Lab ID: 263336011		Collected: 03/28/18 00:00		Received: 03/28/18 17:15		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
<b>6020B MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00078	1	04/02/18 11:50	04/03/18 14:06	7440-36-0		
Arsenic	ND	mg/L	0.0050	0.00057	1	04/02/18 11:50	04/03/18 14:06	7440-38-2		
Barium	ND	mg/L	0.010	0.00078	1	04/02/18 11:50	04/03/18 14:06	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000050	1	04/02/18 11:50	04/03/18 14:06	7440-41-7		
Cadmium	ND	mg/L	0.0010	0.000093	1	04/02/18 11:50	04/03/18 14:06	7440-43-9		
Chromium	ND	mg/L	0.010	0.0016	1	04/02/18 11:50	04/03/18 14:06	7440-47-3		
Cobalt	ND	mg/L	0.010	0.00052	1	04/02/18 11:50	04/03/18 14:06	7440-48-4		
Lead	ND	mg/L	0.0050	0.00027	1	04/02/18 11:50	04/03/18 14:06	7439-92-1		
Lithium	<b>0.021J</b>	mg/L	0.050	0.00097	1	04/02/18 11:50	04/03/18 14:06	7439-93-2		
Molybdenum	<b>0.011</b>	mg/L	0.010	0.0019	1	04/02/18 11:50	04/03/18 14:06	7439-98-7		
Selenium	ND	mg/L	0.010	0.0014	1	04/02/18 11:50	04/03/18 14:06	7782-49-2		
Thallium	ND	mg/L	0.0010	0.00014	1	04/02/18 11:50	04/03/18 14:06	7440-28-0		
<b>7470 Mercury</b>		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.000036	1	04/06/18 13:55	04/06/18 17:07	7439-97-6		
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0								
Fluoride	<b>0.52</b>	mg/L	0.30	0.029	1		04/02/18 17:57	16984-48-8		

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### QUALITY CONTROL DATA

Project: Plant Yates Ash Ponds  
Pace Project No.: 263336

QC Batch: 3611 Analysis Method: EPA 7470A  
QC Batch Method: EPA 7470A Analysis Description: 7470 Mercury  
Associated Lab Samples: 263336001, 263336003, 263336005, 263336007, 263336009, 263336011

METHOD BLANK: 18413 Matrix: Water  
Associated Lab Samples: 263336001, 263336003, 263336005, 263336007, 263336009, 263336011

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00050	0.000036	04/06/18 16:27	

LABORATORY CONTROL SAMPLE: 18414

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	.0025	0.0024	95	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 19801 19802

Parameter	Units	263336001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	mg/L	ND	.0025	.0025	0.0026	0.0026	104	105	75-125	1	20	

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: Plant Yates Ash Ponds

Pace Project No.: 263336

QC Batch: 3540 Analysis Method: EPA 6020B  
QC Batch Method: EPA 3005A Analysis Description: 6020B MET  
Associated Lab Samples: 263336001, 263336003, 263336005, 263336007, 263336009, 263336011

METHOD BLANK: 18161 Matrix: Water  
Associated Lab Samples: 263336001, 263336003, 263336005, 263336007, 263336009, 263336011

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00078	04/03/18 13:26	
Arsenic	mg/L	ND	0.0050	0.00057	04/03/18 13:26	
Barium	mg/L	ND	0.010	0.00078	04/03/18 13:26	
Beryllium	mg/L	ND	0.0030	0.000050	04/03/18 13:26	
Cadmium	mg/L	ND	0.0010	0.000093	04/03/18 13:26	
Chromium	mg/L	ND	0.010	0.0016	04/03/18 13:26	
Cobalt	mg/L	ND	0.010	0.00052	04/03/18 13:26	
Lead	mg/L	ND	0.0050	0.00027	04/03/18 13:26	
Lithium	mg/L	ND	0.050	0.00097	04/03/18 13:26	
Molybdenum	mg/L	ND	0.010	0.0019	04/03/18 13:26	
Selenium	mg/L	ND	0.010	0.0014	04/03/18 13:26	
Thallium	mg/L	ND	0.0010	0.00014	04/03/18 13:26	

LABORATORY CONTROL SAMPLE: 18162

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	.1	0.10	101	80-120	
Arsenic	mg/L	.1	0.099	99	80-120	
Barium	mg/L	.1	0.098	98	80-120	
Beryllium	mg/L	.1	0.097	97	80-120	
Cadmium	mg/L	.1	0.095	95	80-120	
Chromium	mg/L	.1	0.10	101	80-120	
Cobalt	mg/L	.1	0.10	100	80-120	
Lead	mg/L	.1	0.094	94	80-120	
Lithium	mg/L	.1	0.096	96	80-120	
Molybdenum	mg/L	.1	0.10	102	80-120	
Selenium	mg/L	.1	0.096	96	80-120	
Thallium	mg/L	.1	0.095	95	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 18163 18164

Parameter	Units	263338001 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	MS Result	MSD Spike Conc.	MSD Result						
Antimony	mg/L	ND	.1	.1	0.099	0.099	99	99	75-125	0	20	
Arsenic	mg/L	0.00061J	.1	.1	0.096	0.096	95	95	75-125	0	20	
Barium	mg/L	0.021	.1	.1	0.12	0.12	96	95	75-125	1	20	
Beryllium	mg/L	ND	.1	.1	0.099	0.10	99	101	75-125	2	20	
Cadmium	mg/L	ND	.1	.1	0.096	0.095	96	95	75-125	0	20	

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### QUALITY CONTROL DATA

Project: Plant Yates Ash Ponds

Pace Project No.: 263336

Parameter	Units	18163		18164		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
		263338001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result							
Chromium	mg/L	ND	.1	.1	0.10	0.11	103	104	75-125	2	20	
Cobalt	mg/L	ND	.1	.1	0.10	0.10	102	99	75-125	2	20	
Lead	mg/L	ND	.1	.1	0.096	0.093	96	93	75-125	3	20	
Lithium	mg/L	0.0024J	.1	.1	0.098	0.10	96	97	75-125	1	20	
Molybdenum	mg/L	ND	.1	.1	0.10	0.10	103	101	75-125	2	20	
Selenium	mg/L	ND	.1	.1	0.093	0.095	92	94	75-125	2	20	
Thallium	mg/L	ND	.1	.1	0.098	0.093	97	93	75-125	4	20	

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### QUALITY CONTROL DATA

Project: Plant Yates Ash Ponds

Pace Project No.: 263336

QC Batch: 3544 Analysis Method: EPA 300.0  
 QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions  
 Associated Lab Samples: 263336001, 263336003, 263336005, 263336007, 263336009, 263336011

METHOD BLANK: 18185 Matrix: Water  
 Associated Lab Samples: 263336001, 263336003, 263336005, 263336007, 263336009, 263336011

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Fluoride	mg/L	ND	0.30	0.029	04/02/18 14:10	

LABORATORY CONTROL SAMPLE: 18186

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Fluoride	mg/L	10	9.1	91	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 18187 18188

Parameter	Units	263336001 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	9.2	9.4	92	94	90-110	2	15	

MATRIX SPIKE SAMPLE: 18189

Parameter	Units	263336003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Fluoride	mg/L	ND	10	9.8	98	90-110	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds

Pace Project No.: 263336

**Sample: YGWA-14S**      **Lab ID: 263336002**      Collected: 03/27/18 13:40      Received: 03/28/18 17:15      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	<b>0.189 ± 0.129 (0.209)</b> C:89% T:NA	pCi/L	04/09/18 07:47	13982-63-3	
Radium-228	EPA 9320	<b>-0.0519 ± 0.320 (0.759)</b> C:71% T:81%	pCi/L	04/10/18 10:18	15262-20-1	
Total Radium	Total Radium Calculation	<b>0.189 ± 0.449 (0.968)</b>	pCi/L	04/16/18 15:40	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds

Pace Project No.: 263336

**Sample: YGWA-30I**      **Lab ID: 263336004**      Collected: 03/27/18 14:40      Received: 03/28/18 17:15      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	<b>0.306 ± 0.149 (0.179)</b> <b>C:92% T:NA</b>	pCi/L	04/09/18 07:47	13982-63-3	
Radium-228	EPA 9320	<b>0.00359 ± 0.382 (0.887)</b> <b>C:67% T:75%</b>	pCi/L	04/10/18 10:19	15262-20-1	
Total Radium	Total Radium Calculation	<b>0.310 ± 0.531 (1.07)</b>	pCi/L	04/16/18 15:46	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds

Pace Project No.: 263336

**Sample: YGWA-1I**      **Lab ID: 263336006**      Collected: 03/27/18 15:35      Received: 03/28/18 17:15      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	<b>0.165 ± 0.115 (0.175)</b> <b>C:92% T:NA</b>	pCi/L	04/09/18 07:47	13982-63-3	
Radium-228	EPA 9320	<b>0.225 ± 0.284 (0.601)</b> <b>C:70% T:86%</b>	pCi/L	04/10/18 10:19	15262-20-1	
Total Radium	Total Radium Calculation	<b>0.390 ± 0.399 (0.776)</b>	pCi/L	04/16/18 15:40	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds

Pace Project No.: 263336

**Sample: YGWA-2I**      **Lab ID: 263336008**      Collected: 03/28/18 10:37      Received: 03/28/18 17:15      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	<b>0.334 ± 0.155 (0.153)</b> <b>C:82% T:NA</b>	pCi/L	04/09/18 09:28	13982-63-3	
Radium-228	EPA 9320	<b>0.0780 ± 0.386 (0.875)</b> <b>C:73% T:79%</b>	pCi/L	04/10/18 10:19	15262-20-1	
Total Radium	Total Radium Calculation	<b>0.412 ± 0.541 (1.03)</b>	pCi/L	04/16/18 15:46	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds

Pace Project No.: 263336

**Sample: YGWA-3D**      **Lab ID: 263336010**      Collected: 03/28/18 12:50      Received: 03/28/18 17:15      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	<b>1.47 ± 0.370 (0.183)</b> <b>C:83% T:NA</b>	pCi/L	04/09/18 09:28	13982-63-3	
Radium-228	EPA 9320	<b>1.53 ± 0.545 (0.773)</b> <b>C:70% T:78%</b>	pCi/L	04/10/18 10:19	15262-20-1	
Total Radium	Total Radium Calculation	<b>3.00 ± 0.915 (0.956)</b>	pCi/L	04/16/18 15:40	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds

Pace Project No.: 263336

**Sample: Dup-1**      **Lab ID: 263336012**      Collected: 03/28/18 00:00      Received: 03/28/18 17:15      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	<b>1.27 ± 0.330 (0.188)</b> <b>C:88% T:NA</b>	pCi/L	04/09/18 09:28	13982-63-3	
Radium-228	EPA 9320	<b>1.19 ± 0.502 (0.817)</b> <b>C:65% T:86%</b>	pCi/L	04/10/18 10:19	15262-20-1	
Total Radium	Total Radium Calculation	<b>2.46 ± 0.832 (1.01)</b>	pCi/L	04/16/18 15:40	7440-14-4	

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## QUALIFIERS

Project: Plant Yates Ash Ponds  
Pace Project No.: 263336

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### DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

Act - Activity

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

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

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

TNI - The NELAC Institute.

### LABORATORIES

PASI-GA Pace Analytical Services - Atlanta, GA

PASI-PA Pace Analytical Services - Greensburg

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Yates Ash Ponds  
Pace Project No.: 263336

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
263336001	YGWA-14S	EPA 3005A	3540	EPA 6020B	3662
263336003	YGWA-30I	EPA 3005A	3540	EPA 6020B	3662
263336005	YGWA-1I	EPA 3005A	3540	EPA 6020B	3662
263336007	YGWA-2I	EPA 3005A	3540	EPA 6020B	3662
263336009	YGWA-3D	EPA 3005A	3540	EPA 6020B	3662
263336011	Dup-1	EPA 3005A	3540	EPA 6020B	3662
263336001	YGWA-14S	EPA 7470A	3611	EPA 7470A	3902
263336003	YGWA-30I	EPA 7470A	3611	EPA 7470A	3902
263336005	YGWA-1I	EPA 7470A	3611	EPA 7470A	3902
263336007	YGWA-2I	EPA 7470A	3611	EPA 7470A	3902
263336009	YGWA-3D	EPA 7470A	3611	EPA 7470A	3902
263336011	Dup-1	EPA 7470A	3611	EPA 7470A	3902
263336002	YGWA-14S	EPA 9315	293407		
263336004	YGWA-30I	EPA 9315	293407		
263336006	YGWA-1I	EPA 9315	293407		
263336008	YGWA-2I	EPA 9315	293407		
263336010	YGWA-3D	EPA 9315	293407		
263336012	Dup-1	EPA 9315	293407		
263336002	YGWA-14S	EPA 9320	293334		
263336004	YGWA-30I	EPA 9320	293334		
263336006	YGWA-1I	EPA 9320	293334		
263336008	YGWA-2I	EPA 9320	293334		
263336010	YGWA-3D	EPA 9320	293334		
263336012	Dup-1	EPA 9320	293334		
263336002	YGWA-14S	Total Radium Calculation	294834		
263336004	YGWA-30I	Total Radium Calculation	294834		
263336006	YGWA-1I	Total Radium Calculation	294834		
263336008	YGWA-2I	Total Radium Calculation	294834		
263336010	YGWA-3D	Total Radium Calculation	294834		
263336012	Dup-1	Total Radium Calculation	294834		
263336001	YGWA-14S	EPA 300.0	3544		
263336003	YGWA-30I	EPA 300.0	3544		
263336005	YGWA-1I	EPA 300.0	3544		
263336007	YGWA-2I	EPA 300.0	3544		
263336009	YGWA-3D	EPA 300.0	3544		
263336011	Dup-1	EPA 300.0	3544		

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 (770) 734-4200 : FAX (770) 734-4201 : www.asi-lab.com

**CHAIN OF CUSTODY RECORD**

<b>CLIENT NAME:</b> Georgia Power <b>CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER:</b> 241 Ralph McGill Blvd SE B10185 Atlanta, GA 30308 404-508-7239		<b>REPORT TO:</b> Joju Abraham <b>CC:</b> Maria Pacilla Heath McCorkle <b>PO #:</b> laburch@southernco.com <b>PROJECT NAME/STATE:</b> Plant Yates - Ash Pond 2	
<b>REQUESTED COMPLETION DATE:</b>  <b>PROJECT #:</b> Phase 2 CCR		<b>ANALYSIS REQUESTED</b> P P P P 3 7 3 # of CONTAINERS →	
<b>CONTAINER TYPE:</b> PRESERVATION # of CONTAINERS →		P P P P 3 7 3 # of CONTAINERS →	
<b>CONTAINER TYPE:</b> P - PLASTIC A - AMBER GLASS G - CLEAR GLASS V - VOA VIAL S - STERILE O - OTHER		<b>PRESERVATION</b> 1 - HCl, ≤6°C 2 - H <sub>2</sub> SO <sub>4</sub> , ≤6°C 3 - HNO <sub>3</sub> 4 - NaOH, ≤6°C 5 - NaOH/ZnAc, ≤6°C 6 - Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> , ≤6°C 7 - ≤6°C not frozen	
<b>MATRIX CODES:</b> DW - DRINKING WATER WW - WASTEWATER GW - GROUNDWATER SW - SURFACE WATER ST - STORM WATER W - WATER		<b>MATRIX CODES:</b> S - SOIL SL - SLUDGE SD - SOLID A - AIR L - LIQUID P - PRODUCT	
<b>REMARKS/ADDITIONAL INFORMATION</b>			
Collection DATE	Collection TIME	MATRIX CODE	SAMPLE IDENTIFICATION
3-27-18	1340	GW	YGWA-145
3-27-18	1440	GW	YGWA-30I
3-27-18	1535	GW	YGWA-1I
3-28-18	1037	GW	YGWA-2I
3-28-18	1250	GW	YGWA-3D
3-28-18	-	GW	Dup-1
<b>SAMPLED BY AND TITLE:</b> R.W. K... 3, Beris G... 1500		<b>DATE/TIME:</b> 3-28-18 1500	
<b>RECEIVED BY:</b> R. D. ...		<b>DATE/TIME:</b> 3-28-18 1715	
<b>RECEIVED BY LAB:</b> R. D. ...		<b>DATE/TIME:</b> 3-28-18 1715	
<b>TEMPERATURE:</b> (Yes) No NA (Yes) No NA (Yes) No NA		<b>TEMPERATURE:</b> (Yes) No NA (Yes) No NA (Yes) No NA	
<b>RELINQUISHED BY:</b> R. D. ...		<b>DATE/TIME:</b> 3-28-18 1715	
<b>RELINQUISHED BY:</b> R. D. ...		<b>DATE/TIME:</b> 3-28-18 1715	
<b>SAMPLE SHIPPED VIA:</b> UPS FEDEX USPS		<b>COURIER:</b> CLIENT OTHER FS	
<b>LAB #:</b> 263336		<b>FOR LAB USE ONLY:</b> Entered into LIMS: Tracking #	

WO#: 263336

Yates - Blank COCs.XISX

**Sample Condition Upon Receipt**



Client Name: GA Power

Project # \_\_\_\_\_

**WO#: 263336**

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

PM: **BM** Due Date: **04/05/18**

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

CLIENT: **GAPower-CCR**

Packing Material:  Bubble Wrap  Bubble Bags  None  Other \_\_\_\_\_

Thermometer Used 83 Type of Ice: Wet Blue None

Samples on ice, cooling process has begun

Cooler Temperature 0.1 Biological Tissue is Frozen: Yes No

Date and initials of person examining contents: 3/28/18 MK

Temp should be above freezing to 6°C

Comments: \_\_\_\_\_

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

Client Notification/ Resolution:

Field Data Required? Y / N

Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Comments/ Resolution: \_\_\_\_\_

Project Manager Review: \_\_\_\_\_

Date: \_\_\_\_\_

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

April 25, 2018

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

RE: Project: Plant Yates Ash Ponds 2  
Pace Project No.: 263446

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on March 31, 2018. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

Draft report submitted 4/10/2018 and resubmitted 4/20/2018 with cobalt confirmation data on YGWC-27I per consultant request.

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

Sincerely,



Betsy McDaniel  
betsy.mcdaniel@pacelabs.com  
(770)734-4200  
Project Manager

Enclosures

cc: Maria Padilla, Georgia Power  
Chris Parker, Atlantic Coast Consulting  
Evan Perry, Atlantic Coast Consulting  
Lauren Petty, Southern Company Services, Inc.



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: Plant Yates Ash Ponds 2

Pace Project No.: 263446

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### Atlanta Certification IDs

110 Technology Parkway Peachtree Corners, GA 30092

Florida DOH Certification #: E87315

Georgia DW Inorganics Certification #: 812

Georgia DW Microbiology Certification #: 812

North Carolina Certification #: 381

South Carolina Certification #: 98011001

Texas Certification #: T104704397-08-TX

Virginia Certification #: 460204

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### Pennsylvania Certification IDs

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

ANAB DOD-ELAP Rad Accreditation #: L2417

Alabama Certification #: 41590

Arizona Certification #: AZ0734

Arkansas Certification

California Certification #: 04222CA

Colorado Certification #: PA01547

Connecticut Certification #: PH-0694

Delaware Certification

EPA Region 4 DW Rad

Florida/TNI Certification #: E87683

Georgia Certification #: C040

Guam Certification

Hawaii Certification

Idaho Certification

Illinois Certification

Indiana Certification

Iowa Certification #: 391

Kansas/TNI Certification #: E-10358

Kentucky Certification #: KY90133

KY WW Permit #: KY0098221

KY WW Permit #: KY0000221

Louisiana DHH/TNI Certification #: LA180012

Louisiana DEQ/TNI Certification #: 4086

Maine Certification #: 2017020

Maryland Certification #: 308

Massachusetts Certification #: M-PA1457

Michigan/PADEP Certification #: 9991

Missouri Certification #: 235

Montana Certification #: Cert0082

Nebraska Certification #: NE-OS-29-14

Nevada Certification #: PA014572018-1

New Hampshire/TNI Certification #: 297617

New Jersey/TNI Certification #: PA051

New Mexico Certification #: PA01457

New York/TNI Certification #: 10888

North Carolina Certification #: 42706

North Dakota Certification #: R-190

Ohio EPA Rad Approval: #41249

Oregon/TNI Certification #: PA200002-010

Pennsylvania/TNI Certification #: 65-00282

Puerto Rico Certification #: PA01457

Rhode Island Certification #: 65-00282

South Dakota Certification

Tennessee Certification #: 02867

Texas/TNI Certification #: T104704188-17-3

Utah/TNI Certification #: PA014572017-9

USDA Soil Permit #: P330-17-00091

Vermont Dept. of Health: ID# VT-0282

Virgin Island/PADEP Certification

Virginia/VELAP Certification #: 9526

Washington Certification #: C868

West Virginia DEP Certification #: 143

West Virginia DHHR Certification #: 9964C

Wisconsin Approve List for Rad

Wyoming Certification #: 8TMS-L

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## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: Plant Yates Ash Ponds 2

Pace Project No.: 263446

Lab ID	Sample ID	Matrix	Date Collected	Date Received
263446001	YGWA-3I	Water	03/28/18 17:20	03/31/18 11:15
263446002	YGWA-3I	Water	03/28/18 17:20	03/31/18 11:15
263446003	FB-2-3-28-18	Water	03/28/18 17:40	03/31/18 11:15
263446004	FB-2-3-28-18	Water	03/28/18 17:40	03/31/18 11:15
263446005	YGWA-1D	Water	03/29/18 09:46	03/31/18 11:15
263446006	YGWA-1D	Water	03/29/18 09:46	03/31/18 11:15
263446007	EB-1-3-29-18	Water	03/29/18 10:25	03/31/18 11:15
263446008	EB-1-3-29-18	Water	03/29/18 10:25	03/31/18 11:15
263446009	YGWC-27S	Water	03/29/18 15:38	03/31/18 11:15
263446010	YGWC-27S	Water	03/29/18 15:38	03/31/18 11:15
263446011	YGWC-27I	Water	03/29/18 16:58	03/31/18 11:15
263446012	YGWC-27I	Water	03/29/18 16:58	03/31/18 11:15
263446013	Dup-4	Water	03/29/18 00:00	03/31/18 11:15
263446014	Dup-4	Water	03/29/18 00:00	03/31/18 11:15
263446015	YGWC-28I	Water	03/30/18 09:10	03/31/18 11:15
263446016	YGWC-28I	Water	03/30/18 09:10	03/31/18 11:15
263446017	EB-4-3-30-18	Water	03/30/18 10:30	03/31/18 11:15
263446018	EB-4-3-30-18	Water	03/30/18 10:30	03/31/18 11:15
263446019	YGWC-28S	Water	03/30/18 12:50	03/31/18 11:15
263446020	YGWC-28S	Water	03/30/18 12:50	03/31/18 11:15
263446021	YGWC-26I	Water	03/30/18 13:45	03/31/18 11:15
263446022	YGWC-26I	Water	03/30/18 13:45	03/31/18 11:15
263446023	YGWC-26S	Water	03/30/18 13:17	03/31/18 11:15
263446024	YGWC-26S	Water	03/30/18 13:17	03/31/18 11:15

## REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: Plant Yates Ash Ponds 2

Pace Project No.: 263446

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
263446001	YGWA-3I	EPA 6020B	CSW	12	PASI-GA
		EPA 7470A	AAP	1	PASI-GA
		EPA 300.0	RLC	1	PASI-GA
263446002	YGWA-3I	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	RMK	1	PASI-PA
		EPA 6020B	CSW	12	PASI-GA
263446003	FB-2-3-28-18	EPA 7470A	AAP	1	PASI-GA
		EPA 300.0	RLC	1	PASI-GA
		EPA 9315	LAL	1	PASI-PA
263446004	FB-2-3-28-18	EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	RMK	1	PASI-PA
		EPA 6020B	CSW	12	PASI-GA
		EPA 7470A	AAP	1	PASI-GA
263446005	YGWA-1D	EPA 300.0	RLC	1	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
263446006	YGWA-1D	Total Radium Calculation	RMK	1	PASI-PA
		EPA 6020B	CSW	12	PASI-GA
		EPA 7470A	AAP	1	PASI-GA
		EPA 300.0	RLC	1	PASI-GA
263446007	EB-1-3-29-18	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	RMK	1	PASI-PA
263446008	EB-1-3-29-18	EPA 6020B	CSW	12	PASI-GA
		EPA 7470A	AAP	1	PASI-GA
		EPA 300.0	RLC	1	PASI-GA
		EPA 9315	LAL	1	PASI-PA
263446009	YGWC-27S	EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	RMK	1	PASI-PA
		EPA 6020B	CSW	12	PASI-GA
		EPA 7470A	AAP	1	PASI-GA
		EPA 300.0	RLC	1	PASI-GA
263446010	YGWC-27S	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	RMK	1	PASI-PA
		EPA 6020B	CSW	12	PASI-GA
263446011	YGWC-27I	EPA 7470A	AAP	1	PASI-GA
		EPA 300.0	RLC	1	PASI-GA
		EPA 9315	LAL	1	PASI-PA
263446012	YGWC-27I	EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	RMK	1	PASI-PA
		EPA 6020B	CSW	12	PASI-GA
		EPA 7470A	AAP	1	PASI-GA
263446013	Dup-4	EPA 6020B	CSW	12	PASI-GA

### REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: Plant Yates Ash Ponds 2  
Pace Project No.: 263446

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
263446014	Dup-4	EPA 7470A	AAP	1	PASI-GA
		EPA 300.0	RLC	1	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
263446015	YGWC-28I	Total Radium Calculation	RMK	1	PASI-PA
		EPA 6020B	CSW	12	PASI-GA
		EPA 7470A	AAP	1	PASI-GA
		EPA 300.0	RLC	1	PASI-GA
263446016	YGWC-28I	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	RMK	1	PASI-PA
		EPA 6020B	CSW	12	PASI-GA
263446017	EB-4-3-30-18	EPA 7470A	AAP	1	PASI-GA
		EPA 300.0	RLC	1	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
263446018	EB-4-3-30-18	Total Radium Calculation	RMK	1	PASI-PA
		EPA 6020B	CSW	12	PASI-GA
		EPA 7470A	AAP	1	PASI-GA
		EPA 300.0	RLC	1	PASI-GA
263446019	YGWC-28S	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	RMK	1	PASI-PA
		EPA 6020B	CSW	12	PASI-GA
263446020	YGWC-28S	EPA 7470A	AAP	1	PASI-GA
		EPA 300.0	RLC	1	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
263446021	YGWC-26I	Total Radium Calculation	RMK	1	PASI-PA
		EPA 6020B	CSW	12	PASI-GA
		EPA 7470A	AAP	1	PASI-GA
		EPA 300.0	RLC	1	PASI-GA
263446022	YGWC-26I	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	RMK	1	PASI-PA
		EPA 6020B	CSW	12	PASI-GA
263446023	YGWC-26S	EPA 7470A	AAP	1	PASI-GA
		EPA 300.0	RLC	1	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
263446024	YGWC-26S	Total Radium Calculation	RMK	1	PASI-PA

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### ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds 2

Pace Project No.: 263446

Sample: YGWA-3I		Lab ID: 263446001		Collected: 03/28/18 17:20		Received: 03/31/18 11:15		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6020B MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Antimony	ND	mg/L	0.0030	0.00078	1	04/02/18 12:25	04/03/18 18:13	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	04/02/18 12:25	04/03/18 18:13	7440-38-2	
Barium	ND	mg/L	0.010	0.00078	1	04/02/18 12:25	04/03/18 18:13	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	04/02/18 12:25	04/03/18 18:13	7440-41-7	
Cadmium	ND	mg/L	0.0010	0.000093	1	04/02/18 12:25	04/03/18 18:13	7440-43-9	
Chromium	ND	mg/L	0.010	0.0016	1	04/02/18 12:25	04/03/18 18:13	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	04/02/18 12:25	04/03/18 18:13	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	04/02/18 12:25	04/03/18 18:13	7439-92-1	
Lithium	<b>0.013J</b>	mg/L	0.050	0.00097	1	04/02/18 12:25	04/03/18 18:13	7439-93-2	
Molybdenum	<b>0.0025J</b>	mg/L	0.010	0.0019	1	04/02/18 12:25	04/03/18 18:13	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	04/02/18 12:25	04/03/18 18:13	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	04/02/18 12:25	04/03/18 18:13	7440-28-0	
<b>7470 Mercury</b>		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00050	0.000036	1	04/09/18 12:56	04/09/18 16:03	7439-97-6	
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0							
Fluoride	ND	mg/L	0.30	0.029	1		04/04/18 21:22	16984-48-8	

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds 2

Pace Project No.: 263446

Sample: <b>FB-2-3-28-18</b>		Lab ID: <b>263446003</b>		Collected: 03/28/18 17:40		Received: 03/31/18 11:15		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6020B MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Antimony	ND	mg/L	0.0030	0.00078	1	04/02/18 12:25	04/03/18 18:36	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	04/02/18 12:25	04/03/18 18:36	7440-38-2	
Barium	ND	mg/L	0.010	0.00078	1	04/02/18 12:25	04/03/18 18:36	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	04/02/18 12:25	04/03/18 18:36	7440-41-7	
Cadmium	ND	mg/L	0.0010	0.000093	1	04/02/18 12:25	04/03/18 18:36	7440-43-9	
Chromium	ND	mg/L	0.010	0.0016	1	04/02/18 12:25	04/03/18 18:36	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	04/02/18 12:25	04/03/18 18:36	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	04/02/18 12:25	04/03/18 18:36	7439-92-1	
Lithium	ND	mg/L	0.050	0.00097	1	04/02/18 12:25	04/03/18 18:36	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	04/02/18 12:25	04/03/18 18:36	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	04/02/18 12:25	04/03/18 18:36	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	04/02/18 12:25	04/03/18 18:36	7440-28-0	
<b>7470 Mercury</b>		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00050	0.000036	1	04/09/18 12:56	04/09/18 16:05	7439-97-6	
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0							
Fluoride	ND	mg/L	0.30	0.029	1		04/04/18 22:24	16984-48-8	

## REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds 2

Pace Project No.: 263446

Sample: YGWA-1D		Lab ID: 263446005		Collected: 03/29/18 09:46		Received: 03/31/18 11:15		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6020B MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Antimony	ND	mg/L	0.0030	0.00078	1	04/02/18 12:25	04/03/18 18:42	7440-36-0	
Arsenic	<b>0.0017J</b>	mg/L	0.0050	0.00057	1	04/02/18 12:25	04/03/18 18:42	7440-38-2	
Barium	ND	mg/L	0.010	0.00078	1	04/02/18 12:25	04/03/18 18:42	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	04/02/18 12:25	04/03/18 18:42	7440-41-7	
Cadmium	ND	mg/L	0.0010	0.000093	1	04/02/18 12:25	04/03/18 18:42	7440-43-9	
Chromium	ND	mg/L	0.010	0.0016	1	04/02/18 12:25	04/03/18 18:42	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	04/02/18 12:25	04/03/18 18:42	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	04/02/18 12:25	04/03/18 18:42	7439-92-1	
Lithium	<b>0.0078J</b>	mg/L	0.050	0.00097	1	04/02/18 12:25	04/03/18 18:42	7439-93-2	
Molybdenum	<b>0.0076J</b>	mg/L	0.010	0.0019	1	04/02/18 12:25	04/03/18 18:42	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	04/02/18 12:25	04/03/18 18:42	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	04/02/18 12:25	04/03/18 18:42	7440-28-0	
<b>7470 Mercury</b>		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00050	0.000036	1	04/09/18 12:56	04/09/18 16:08	7439-97-6	
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0							
Fluoride	ND	mg/L	0.30	0.029	1		04/04/18 22:44	16984-48-8	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds 2

Pace Project No.: 263446

Sample: EB-1-3-29-18		Lab ID: 263446007		Collected: 03/29/18 10:25		Received: 03/31/18 11:15		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6020B MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Antimony	ND	mg/L	0.0030	0.00078	1	04/02/18 12:25	04/03/18 18:48	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	04/02/18 12:25	04/03/18 18:48	7440-38-2	
Barium	ND	mg/L	0.010	0.00078	1	04/02/18 12:25	04/03/18 18:48	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	04/02/18 12:25	04/03/18 18:48	7440-41-7	
Cadmium	ND	mg/L	0.0010	0.000093	1	04/02/18 12:25	04/03/18 18:48	7440-43-9	
Chromium	ND	mg/L	0.010	0.0016	1	04/02/18 12:25	04/03/18 18:48	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	04/02/18 12:25	04/03/18 18:48	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	04/02/18 12:25	04/03/18 18:48	7439-92-1	
Lithium	ND	mg/L	0.050	0.00097	1	04/02/18 12:25	04/03/18 18:48	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	04/02/18 12:25	04/03/18 18:48	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	04/02/18 12:25	04/03/18 18:48	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	04/02/18 12:25	04/03/18 18:48	7440-28-0	
<b>7470 Mercury</b>		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00050	0.000036	1	04/09/18 12:56	04/09/18 16:10	7439-97-6	
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0							
Fluoride	ND	mg/L	0.30	0.029	1		04/04/18 23:05	16984-48-8	

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### ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds 2

Pace Project No.: 263446

<b>Sample: YGWC-27S</b>		<b>Lab ID: 263446009</b>		Collected: 03/29/18 15:38		Received: 03/31/18 11:15		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6020B MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Antimony	ND	mg/L	0.0030	0.00078	1	04/02/18 12:25	04/03/18 18:53	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	04/02/18 12:25	04/03/18 18:53	7440-38-2	
Barium	<b>0.097</b>	mg/L	0.010	0.00078	1	04/02/18 12:25	04/03/18 18:53	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	04/02/18 12:25	04/03/18 18:53	7440-41-7	
Cadmium	ND	mg/L	0.0010	0.000093	1	04/02/18 12:25	04/03/18 18:53	7440-43-9	
Chromium	ND	mg/L	0.010	0.0016	1	04/02/18 12:25	04/03/18 18:53	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	04/02/18 12:25	04/03/18 18:53	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	04/02/18 12:25	04/03/18 18:53	7439-92-1	
Lithium	ND	mg/L	0.050	0.00097	1	04/02/18 12:25	04/03/18 18:53	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	04/02/18 12:25	04/03/18 18:53	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	04/02/18 12:25	04/03/18 18:53	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	04/02/18 12:25	04/03/18 18:53	7440-28-0	
<b>7470 Mercury</b>		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00050	0.000036	1	04/09/18 12:56	04/09/18 16:17	7439-97-6	
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0							
Fluoride	<b>0.49</b>	mg/L	0.30	0.029	1		04/04/18 23:26	16984-48-8	

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### ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds 2

Pace Project No.: 263446

Sample: YGWC-271		Lab ID: 263446011		Collected: 03/29/18 16:58		Received: 03/31/18 11:15		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
<b>6020B MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00078	1	04/02/18 12:25	04/03/18 19:11	7440-36-0		
Arsenic	<b>0.00060J</b>	mg/L	0.0050	0.00057	1	04/02/18 12:25	04/03/18 19:11	7440-38-2		
Barium	<b>0.062</b>	mg/L	0.010	0.00078	1	04/02/18 12:25	04/03/18 19:11	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000050	1	04/02/18 12:25	04/03/18 19:11	7440-41-7		
Cadmium	ND	mg/L	0.0010	0.000093	1	04/02/18 12:25	04/03/18 19:11	7440-43-9		
Chromium	ND	mg/L	0.010	0.0016	1	04/02/18 12:25	04/03/18 19:11	7440-47-3		
Cobalt	<b>0.048</b>	mg/L	0.010	0.00052	1	04/02/18 12:25	04/03/18 19:11	7440-48-4		
Cobalt	<b>0.051</b>	mg/L	0.010	0.00052	1	04/17/18 09:10	04/17/18 18:37	7440-48-4		
Lead	ND	mg/L	0.0050	0.00027	1	04/02/18 12:25	04/03/18 19:11	7439-92-1		
Lithium	<b>0.011J</b>	mg/L	0.050	0.00097	1	04/02/18 12:25	04/03/18 19:11	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.0019	1	04/02/18 12:25	04/03/18 19:11	7439-98-7		
Selenium	ND	mg/L	0.010	0.0014	1	04/02/18 12:25	04/03/18 19:11	7782-49-2		
Thallium	ND	mg/L	0.0010	0.00014	1	04/02/18 12:25	04/03/18 19:11	7440-28-0		
<b>7470 Mercury</b>		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.000036	1	04/09/18 12:56	04/09/18 16:19	7439-97-6		
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0								
Fluoride	ND	mg/L	0.30	0.029	1		04/04/18 23:46	16984-48-8		

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### ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds 2

Pace Project No.: 263446

Sample: Dup-4		Lab ID: 263446013		Collected: 03/29/18 00:00		Received: 03/31/18 11:15		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6020B MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Antimony	ND	mg/L	0.0030	0.00078	1	04/02/18 12:25	04/03/18 19:16	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	04/02/18 12:25	04/03/18 19:16	7440-38-2	
Barium	<b>0.093</b>	mg/L	0.010	0.00078	1	04/02/18 12:25	04/03/18 19:16	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	04/02/18 12:25	04/03/18 19:16	7440-41-7	
Cadmium	ND	mg/L	0.0010	0.000093	1	04/02/18 12:25	04/03/18 19:16	7440-43-9	
Chromium	ND	mg/L	0.010	0.0016	1	04/02/18 12:25	04/03/18 19:16	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	04/02/18 12:25	04/03/18 19:16	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	04/02/18 12:25	04/03/18 19:16	7439-92-1	
Lithium	ND	mg/L	0.050	0.00097	1	04/02/18 12:25	04/03/18 19:16	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	04/02/18 12:25	04/03/18 19:16	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	04/02/18 12:25	04/03/18 19:16	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	04/02/18 12:25	04/03/18 19:16	7440-28-0	
<b>7470 Mercury</b>		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00050	0.000036	1	04/09/18 12:56	04/09/18 16:22	7439-97-6	
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0							
Fluoride	ND	mg/L	0.30	0.029	1		04/05/18 00:07	16984-48-8	

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### ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds 2

Pace Project No.: 263446

Sample: YGWC-28I		Lab ID: 263446015		Collected: 03/30/18 09:10		Received: 03/31/18 11:15		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6020B MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Antimony	ND	mg/L	0.0030	0.00078	1	04/02/18 12:25	04/03/18 19:22	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	04/02/18 12:25	04/03/18 19:22	7440-38-2	
Barium	<b>0.087</b>	mg/L	0.010	0.00078	1	04/02/18 12:25	04/03/18 19:22	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	04/02/18 12:25	04/03/18 19:22	7440-41-7	
Cadmium	ND	mg/L	0.0010	0.000093	1	04/02/18 12:25	04/03/18 19:22	7440-43-9	
Chromium	ND	mg/L	0.010	0.0016	1	04/02/18 12:25	04/03/18 19:22	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	04/02/18 12:25	04/03/18 19:22	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	04/02/18 12:25	04/03/18 19:22	7439-92-1	
Lithium	<b>0.0070J</b>	mg/L	0.050	0.00097	1	04/02/18 12:25	04/03/18 19:22	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	04/02/18 12:25	04/03/18 19:22	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	04/02/18 12:25	04/03/18 19:22	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	04/02/18 12:25	04/03/18 19:22	7440-28-0	
<b>7470 Mercury</b>		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00050	0.000036	1	04/09/18 12:56	04/09/18 16:24	7439-97-6	
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0							
Fluoride	ND	mg/L	0.30	0.029	1		04/05/18 00:27	16984-48-8	

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### ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds 2

Pace Project No.: 263446

Sample: EB-4-3-30-18		Lab ID: 263446017		Collected: 03/30/18 10:30		Received: 03/31/18 11:15		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6020B MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Antimony	ND	mg/L	0.0030	0.00078	1	04/02/18 12:25	04/03/18 19:28	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	04/02/18 12:25	04/03/18 19:28	7440-38-2	
Barium	ND	mg/L	0.010	0.00078	1	04/02/18 12:25	04/03/18 19:28	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	04/02/18 12:25	04/03/18 19:28	7440-41-7	
Cadmium	ND	mg/L	0.0010	0.000093	1	04/02/18 12:25	04/03/18 19:28	7440-43-9	
Chromium	ND	mg/L	0.010	0.0016	1	04/02/18 12:25	04/03/18 19:28	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	04/02/18 12:25	04/03/18 19:28	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	04/02/18 12:25	04/03/18 19:28	7439-92-1	
Lithium	ND	mg/L	0.050	0.00097	1	04/02/18 12:25	04/03/18 19:28	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	04/02/18 12:25	04/03/18 19:28	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	04/02/18 12:25	04/03/18 19:28	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	04/02/18 12:25	04/03/18 19:28	7440-28-0	
<b>7470 Mercury</b>		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00050	0.000036	1	04/09/18 12:56	04/09/18 16:27	7439-97-6	
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0							
Fluoride	ND	mg/L	0.30	0.029	1		04/05/18 02:11	16984-48-8	

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### ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds 2

Pace Project No.: 263446

Sample: YGWC-28S		Lab ID: 263446019		Collected: 03/30/18 12:50		Received: 03/31/18 11:15		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6020B MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Antimony	ND	mg/L	0.0030	0.00078	1	04/02/18 12:25	04/03/18 19:33	7440-36-0	
Arsenic	<b>0.00069J</b>	mg/L	0.0050	0.00057	1	04/02/18 12:25	04/03/18 19:33	7440-38-2	
Barium	<b>0.20</b>	mg/L	0.010	0.00078	1	04/02/18 12:25	04/03/18 19:33	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	04/02/18 12:25	04/03/18 19:33	7440-41-7	
Cadmium	ND	mg/L	0.0010	0.000093	1	04/02/18 12:25	04/03/18 19:33	7440-43-9	
Chromium	ND	mg/L	0.010	0.0016	1	04/02/18 12:25	04/03/18 19:33	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	04/02/18 12:25	04/03/18 19:33	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	04/02/18 12:25	04/03/18 19:33	7439-92-1	
Lithium	ND	mg/L	0.050	0.00097	1	04/02/18 12:25	04/03/18 19:33	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	04/02/18 12:25	04/03/18 19:33	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	04/02/18 12:25	04/03/18 19:33	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	04/02/18 12:25	04/03/18 19:33	7440-28-0	
<b>7470 Mercury</b>		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00050	0.000036	1	04/09/18 12:56	04/09/18 16:29	7439-97-6	
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0							
Fluoride	ND	mg/L	0.30	0.029	1		04/05/18 02:31	16984-48-8	

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### ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds 2

Pace Project No.: 263446

Sample: YGWC-26I		Lab ID: 263446021		Collected: 03/30/18 13:45		Received: 03/31/18 11:15		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
<b>6020B MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00078	1	04/02/18 12:25	04/03/18 19:39	7440-36-0		
Arsenic	ND	mg/L	0.0050	0.00057	1	04/02/18 12:25	04/03/18 19:39	7440-38-2		
Barium	<b>0.063</b>	mg/L	0.010	0.00078	1	04/02/18 12:25	04/03/18 19:39	7440-39-3		
Beryllium	ND	mg/L	0.0030	0.000050	1	04/02/18 12:25	04/03/18 19:39	7440-41-7		
Cadmium	ND	mg/L	0.0010	0.000093	1	04/02/18 12:25	04/03/18 19:39	7440-43-9		
Chromium	ND	mg/L	0.010	0.0016	1	04/02/18 12:25	04/03/18 19:39	7440-47-3		
Cobalt	ND	mg/L	0.010	0.00052	1	04/02/18 12:25	04/03/18 19:39	7440-48-4		
Lead	ND	mg/L	0.0050	0.00027	1	04/02/18 12:25	04/03/18 19:39	7439-92-1		
Lithium	<b>0.0068J</b>	mg/L	0.050	0.00097	1	04/02/18 12:25	04/03/18 19:39	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.0019	1	04/02/18 12:25	04/03/18 19:39	7439-98-7		
Selenium	ND	mg/L	0.010	0.0014	1	04/02/18 12:25	04/03/18 19:39	7782-49-2		
Thallium	ND	mg/L	0.0010	0.00014	1	04/02/18 12:25	04/03/18 19:39	7440-28-0		
<b>7470 Mercury</b>		Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.000036	1	04/09/18 12:56	04/09/18 16:31	7439-97-6		
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0								
Fluoride	ND	mg/L	0.30	0.029	1		04/05/18 02:52	16984-48-8		

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## ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds 2

Pace Project No.: 263446

Sample: YGWC-26S		Lab ID: 263446023		Collected: 03/30/18 13:17		Received: 03/31/18 11:15		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6020B MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Antimony	ND	mg/L	0.0030	0.00078	1	04/02/18 12:25	04/03/18 19:45	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	04/02/18 12:25	04/03/18 19:45	7440-38-2	
Barium	<b>0.026</b>	mg/L	0.010	0.00078	1	04/02/18 12:25	04/03/18 19:45	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	04/02/18 12:25	04/03/18 19:45	7440-41-7	
Cadmium	ND	mg/L	0.0010	0.000093	1	04/02/18 12:25	04/03/18 19:45	7440-43-9	
Chromium	ND	mg/L	0.010	0.0016	1	04/02/18 12:25	04/03/18 19:45	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	04/02/18 12:25	04/03/18 19:45	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	04/02/18 12:25	04/03/18 19:45	7439-92-1	
Lithium	ND	mg/L	0.050	0.00097	1	04/02/18 12:25	04/03/18 19:45	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	04/02/18 12:25	04/03/18 19:45	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	04/02/18 12:25	04/03/18 19:45	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	04/02/18 12:25	04/03/18 19:45	7440-28-0	
<b>7470 Mercury</b>		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00050	0.000036	1	04/09/18 12:56	04/09/18 16:34	7439-97-6	
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0							
Fluoride	<b>0.35</b>	mg/L	0.30	0.029	1		04/05/18 03:13	16984-48-8	

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### QUALITY CONTROL DATA

Project: Plant Yates Ash Ponds 2

Pace Project No.: 263446

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QC Batch: 3613 Analysis Method: EPA 7470A  
 QC Batch Method: EPA 7470A Analysis Description: 7470 Mercury  
 Associated Lab Samples: 263446001, 263446003, 263446005, 263446007, 263446009, 263446011, 263446013, 263446015, 263446017, 263446019, 263446021, 263446023

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METHOD BLANK: 18417 Matrix: Water  
 Associated Lab Samples: 263446001, 263446003, 263446005, 263446007, 263446009, 263446011, 263446013, 263446015, 263446017, 263446019, 263446021, 263446023

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00050	0.000036	04/09/18 15:49	

LABORATORY CONTROL SAMPLE: 18418

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	.0025	0.0025	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 20088 20089

Parameter	Units	263498003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	mg/L	ND	.0025	.0025	0.0022	0.0021	88	85	75-125	3	20	

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

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### QUALITY CONTROL DATA

Project: Plant Yates Ash Ponds 2  
Pace Project No.: 263446

QC Batch: 3568 Analysis Method: EPA 6020B  
QC Batch Method: EPA 3005A Analysis Description: 6020B MET  
Associated Lab Samples: 263446001, 263446003, 263446005, 263446007, 263446009, 263446011, 263446013, 263446015, 263446017, 263446019, 263446021, 263446023

METHOD BLANK: 18241 Matrix: Water  
Associated Lab Samples: 263446001, 263446003, 263446005, 263446007, 263446009, 263446011, 263446013, 263446015, 263446017, 263446019, 263446021, 263446023

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00078	04/03/18 18:01	
Arsenic	mg/L	ND	0.0050	0.00057	04/03/18 18:01	
Barium	mg/L	ND	0.010	0.00078	04/03/18 18:01	
Beryllium	mg/L	ND	0.0030	0.000050	04/03/18 18:01	
Cadmium	mg/L	ND	0.0010	0.000093	04/03/18 18:01	
Chromium	mg/L	ND	0.010	0.0016	04/03/18 18:01	
Cobalt	mg/L	ND	0.010	0.00052	04/03/18 18:01	
Lead	mg/L	ND	0.0050	0.00027	04/03/18 18:01	
Lithium	mg/L	ND	0.050	0.00097	04/03/18 18:01	
Molybdenum	mg/L	ND	0.010	0.0019	04/03/18 18:01	
Selenium	mg/L	ND	0.010	0.0014	04/03/18 18:01	
Thallium	mg/L	ND	0.0010	0.00014	04/03/18 18:01	

LABORATORY CONTROL SAMPLE: 18242

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	.1	0.10	102	80-120	
Arsenic	mg/L	.1	0.10	102	80-120	
Barium	mg/L	.1	0.10	100	80-120	
Beryllium	mg/L	.1	0.10	104	80-120	
Cadmium	mg/L	.1	0.098	98	80-120	
Chromium	mg/L	.1	0.11	107	80-120	
Cobalt	mg/L	.1	0.11	105	80-120	
Lead	mg/L	.1	0.10	100	80-120	
Lithium	mg/L	.1	0.11	105	80-120	
Molybdenum	mg/L	.1	0.10	104	80-120	
Selenium	mg/L	.1	0.099	99	80-120	
Thallium	mg/L	.1	0.10	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 18243 18244

Parameter	Units	263446001 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	MS Result	MSD Result	MSD Result						
Antimony	mg/L	ND	.1	.1	0.11	0.10	105	104	75-125	2	20	
Arsenic	mg/L	ND	.1	.1	0.11	0.10	105	102	75-125	3	20	
Barium	mg/L	ND	.1	.1	0.11	0.10	102	100	75-125	2	20	
Beryllium	mg/L	ND	.1	.1	0.098	0.098	98	98	75-125	0	20	

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### QUALITY CONTROL DATA

Project: Plant Yates Ash Ponds 2

Pace Project No.: 263446

Parameter	Units	18243		18244		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
		263446001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result							
Cadmium	mg/L	ND	.1	.1	0.10	0.10	100	100	75-125	0	20	
Chromium	mg/L	ND	.1	.1	0.10	0.11	105	107	75-125	2	20	
Cobalt	mg/L	ND	.1	.1	0.10	0.10	104	104	75-125	0	20	
Lead	mg/L	ND	.1	.1	0.10	0.10	101	101	75-125	1	20	
Lithium	mg/L	0.013J	.1	.1	0.11	0.11	101	98	75-125	2	20	
Molybdenum	mg/L	0.0025J	.1	.1	0.11	0.11	106	105	75-125	1	20	
Selenium	mg/L	ND	.1	.1	0.10	0.10	103	100	75-125	2	20	
Thallium	mg/L	ND	.1	.1	0.10	0.10	102	100	75-125	2	20	

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### QUALITY CONTROL DATA

Project: Plant Yates Ash Ponds 2

Pace Project No.: 263446

QC Batch: 4448	Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A	Analysis Description: 6020B MET
Associated Lab Samples: 263446011	

METHOD BLANK: 21914 Matrix: Water  
Associated Lab Samples: 263446011

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Cobalt	mg/L	ND	0.010	0.00052	04/17/18 18:26	

LABORATORY CONTROL SAMPLE: 21915

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Cobalt	mg/L	.1	0.10	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 21927 21928

Parameter	Units	263942002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Cobalt	mg/L				0.10	0.10				1	20	

SAMPLE DUPLICATE: 21916

Parameter	Units	263446011 Result	Dup Result	RPD	Max RPD	Qualifiers
Cobalt	mg/L	0.051	0.047	7	20	

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### QUALITY CONTROL DATA

Project: Plant Yates Ash Ponds 2  
Pace Project No.: 263446

QC Batch: 3752 Analysis Method: EPA 300.0  
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions  
Associated Lab Samples: 263446001, 263446003, 263446005, 263446007, 263446009, 263446011, 263446013, 263446015, 263446017, 263446019, 263446021, 263446023

METHOD BLANK: 18942 Matrix: Water  
Associated Lab Samples: 263446001, 263446003, 263446005, 263446007, 263446009, 263446011, 263446013, 263446015, 263446017, 263446019, 263446021, 263446023

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Fluoride	mg/L	ND	0.30	0.029	04/04/18 19:59	

LABORATORY CONTROL SAMPLE: 18943

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Fluoride	mg/L	10	9.6	96	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 18944 18945

Parameter	Units	263446001 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	9.6	9.6	94	95	90-110	0	15	

MATRIX SPIKE SAMPLE: 18946

Parameter	Units	263446023 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Fluoride	mg/L	0.35	10	9.6	93	90-110	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds 2

Pace Project No.: 263446

**Sample: YGWA-3I**      **Lab ID: 263446002**      Collected: 03/28/18 17:20      Received: 03/31/18 11:15      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	<b>0.569 ± 0.283 (0.337)</b> <b>C:84% T:NA</b>	pCi/L	04/12/18 13:16	13982-63-3	
Radium-228	EPA 9320	<b>0.0805 ± 0.329 (0.749)</b> <b>C:72% T:78%</b>	pCi/L	04/17/18 13:47	15262-20-1	
Total Radium	Total Radium Calculation	<b>0.650 ± 0.612 (1.09)</b>	pCi/L	04/19/18 11:36	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds 2

Pace Project No.: 263446

**Sample: FB-2-3-28-18**      **Lab ID: 263446004**      Collected: 03/28/18 17:40      Received: 03/31/18 11:15      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	<b>0.122 ± 0.181 (0.393)</b> <b>C:92% T:NA</b>	pCi/L	04/12/18 13:16	13982-63-3	
Radium-228	EPA 9320	<b>0.0311 ± 0.314 (0.725)</b> <b>C:78% T:83%</b>	pCi/L	04/17/18 13:47	15262-20-1	
Total Radium	Total Radium Calculation	<b>0.153 ± 0.495 (1.12)</b>	pCi/L	04/19/18 11:36	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds 2

Pace Project No.: 263446

**Sample: YGWA-1D**      **Lab ID: 263446006**      Collected: 03/29/18 09:46      Received: 03/31/18 11:15      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	<b>0.503 ± 0.287 (0.415)</b> <b>C:84% T:NA</b>	pCi/L	04/12/18 13:16	13982-63-3	
Radium-228	EPA 9320	<b>-0.164 ± 0.310 (0.757)</b> <b>C:76% T:83%</b>	pCi/L	04/17/18 13:47	15262-20-1	
Total Radium	Total Radium Calculation	<b>0.503 ± 0.597 (1.17)</b>	pCi/L	04/19/18 11:36	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds 2

Pace Project No.: 263446

**Sample: EB-1-3-29-18**      **Lab ID: 263446008**      Collected: 03/29/18 10:25      Received: 03/31/18 11:15      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	<b>0.151 ± 0.213 (0.459)</b> C:79% T:NA	pCi/L	04/12/18 09:05	13982-63-3	
Radium-228	EPA 9320	<b>0.757 ± 0.414 (0.752)</b> C:75% T:84%	pCi/L	04/16/18 12:06	15262-20-1	
Total Radium	Total Radium Calculation	<b>0.908 ± 0.627 (1.21)</b>	pCi/L	04/19/18 11:36	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds 2

Pace Project No.: 263446

**Sample: YGWC-27S**      **Lab ID: 263446010**      Collected: 03/29/18 15:38      Received: 03/31/18 11:15      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	<b>0.334 ± 0.240 (0.408)</b> C:96% T:NA	pCi/L	04/12/18 09:05	13982-63-3	
Radium-228	EPA 9320	<b>0.582 ± 0.371 (0.705)</b> C:78% T:85%	pCi/L	04/16/18 12:06	15262-20-1	
Total Radium	Total Radium Calculation	<b>0.916 ± 0.611 (1.11)</b>	pCi/L	04/19/18 11:36	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds 2

Pace Project No.: 263446

**Sample: YGWC-271**      **Lab ID: 263446012**      Collected: 03/29/18 16:58      Received: 03/31/18 11:15      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	<b>0.605 ± 0.286 (0.343)</b> C:95% T:NA	pCi/L	04/12/18 09:05	13982-63-3	
Radium-228	EPA 9320	<b>0.808 ± 0.444 (0.813)</b> C:72% T:85%	pCi/L	04/16/18 12:06	15262-20-1	
Total Radium	Total Radium Calculation	<b>1.41 ± 0.730 (1.16)</b>	pCi/L	04/19/18 11:36	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds 2

Pace Project No.: 263446

**Sample: Dup-4**      **Lab ID: 263446014**      Collected: 03/29/18 00:00      Received: 03/31/18 11:15      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	<b>0.358 ± 0.254 (0.434)</b> C:95% T:NA	pCi/L	04/12/18 09:06	13982-63-3	
Radium-228	EPA 9320	<b>0.884 ± 0.450 (0.809)</b> C:71% T:90%	pCi/L	04/16/18 12:06	15262-20-1	
Total Radium	Total Radium Calculation	<b>1.24 ± 0.704 (1.24)</b>	pCi/L	04/19/18 11:36	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds 2

Pace Project No.: 263446

**Sample: YGWC-28I**      **Lab ID: 263446016**      Collected: 03/30/18 09:10      Received: 03/31/18 11:15      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	<b>0.363 ± 0.252 (0.406)</b> C:86% T:NA	pCi/L	04/12/18 09:06	13982-63-3	
Radium-228	EPA 9320	<b>0.585 ± 0.352 (0.660)</b> C:77% T:94%	pCi/L	04/16/18 12:06	15262-20-1	
Total Radium	Total Radium Calculation	<b>0.948 ± 0.604 (1.07)</b>	pCi/L	04/19/18 11:36	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds 2

Pace Project No.: 263446

**Sample: EB-4-3-30-18**      **Lab ID: 263446018**      Collected: 03/30/18 10:30      Received: 03/31/18 11:15      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	<b>0.198 ± 0.184 (0.331)</b> <b>C:96% T:NA</b>	pCi/L	04/12/18 09:06	13982-63-3	
Radium-228	EPA 9320	<b>0.571 ± 0.368 (0.693)</b> <b>C:77% T:81%</b>	pCi/L	04/16/18 12:06	15262-20-1	
Total Radium	Total Radium Calculation	<b>0.769 ± 0.552 (1.02)</b>	pCi/L	04/19/18 11:36	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds 2

Pace Project No.: 263446

**Sample: YGWC-28S**      **Lab ID: 263446020**      Collected: 03/30/18 12:50      Received: 03/31/18 11:15      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	<b>-0.0165 ± 0.138 (0.394)</b> <b>C:94% T:NA</b>	pCi/L	04/12/18 09:06	13982-63-3	
Radium-228	EPA 9320	<b>0.195 ± 0.366 (0.801)</b> <b>C:81% T:85%</b>	pCi/L	04/16/18 12:06	15262-20-1	
Total Radium	Total Radium Calculation	<b>0.195 ± 0.504 (1.20)</b>	pCi/L	04/19/18 11:36	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds 2

Pace Project No.: 263446

**Sample: YGWC-261**      **Lab ID: 263446022**      Collected: 03/30/18 13:45      Received: 03/31/18 11:15      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	<b>0.230 ± 0.263 (0.547)</b> <b>C:89% T:NA</b>	pCi/L	04/12/18 09:06	13982-63-3	
Radium-228	EPA 9320	<b>-0.186 ± 0.327 (0.800)</b> <b>C:76% T:85%</b>	pCi/L	04/16/18 15:12	15262-20-1	
Total Radium	Total Radium Calculation	<b>0.230 ± 0.590 (1.35)</b>	pCi/L	04/19/18 11:36	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds 2

Pace Project No.: 263446

**Sample: YGWC-26S**      **Lab ID: 263446024**      Collected: 03/30/18 13:17      Received: 03/31/18 11:15      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	<b>0.234 ± 0.264 (0.549)</b> <b>C:89% T:NA</b>	pCi/L	04/12/18 09:06	13982-63-3	
Radium-228	EPA 9320	<b>0.267 ± 0.400 (0.863)</b> <b>C:75% T:77%</b>	pCi/L	04/16/18 15:12	15262-20-1	
Total Radium	Total Radium Calculation	<b>0.501 ± 0.664 (1.41)</b>	pCi/L	04/19/18 11:36	7440-14-4	

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds 2

Pace Project No.: 263446

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QC Batch:	293840	Analysis Method:	EPA 9320
QC Batch Method:	EPA 9320	Analysis Description:	9320 Radium 228
Associated Lab Samples:	263446008, 263446010, 263446012, 263446014, 263446016, 263446018, 263446020, 263446022, 263446024		

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METHOD BLANK:	1438693	Matrix:	Water
Associated Lab Samples:	263446008, 263446010, 263446012, 263446014, 263446016, 263446018, 263446020, 263446022, 263446024		

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	-0.0384 ± 0.272 (0.648) C:79% T:84%	pCi/L	04/16/18 11:04	

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds 2

Pace Project No.: 263446

QC Batch: 293707

Analysis Method: EPA 9320

QC Batch Method: EPA 9320

Analysis Description: 9320 Radium 228

Associated Lab Samples: 263446002, 263446004, 263446006

METHOD BLANK: 1437861

Matrix: Water

Associated Lab Samples: 263446002, 263446004, 263446006

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.115 ± 0.285 (0.637) C:79% T:87%	pCi/L	04/17/18 13:46	

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds 2

Pace Project No.: 263446

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QC Batch:	293839	Analysis Method:	EPA 9315
QC Batch Method:	EPA 9315	Analysis Description:	9315 Total Radium
Associated Lab Samples:	263446008, 263446010, 263446012, 263446014, 263446016, 263446018, 263446020, 263446022, 263446024		

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METHOD BLANK:	1438692	Matrix:	Water
Associated Lab Samples:	263446008, 263446010, 263446012, 263446014, 263446016, 263446018, 263446020, 263446022, 263446024		

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0457 ± 0.172 (0.432) C:92% T:NA	pCi/L	04/12/18 09:04	

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds 2

Pace Project No.: 263446

QC Batch: 293706

Analysis Method: EPA 9315

QC Batch Method: EPA 9315

Analysis Description: 9315 Total Radium

Associated Lab Samples: 263446002, 263446004, 263446006

METHOD BLANK: 1437860

Matrix: Water

Associated Lab Samples: 263446002, 263446004, 263446006

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0134 ± 0.160 (0.434) C:81% T:NA	pCi/L	04/12/18 09:11	

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

### REPORT OF LABORATORY ANALYSIS

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## QUALIFIERS

Project: Plant Yates Ash Ponds 2  
Pace Project No.: 263446

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### DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

Act - Activity

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

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

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

TNI - The NELAC Institute.

### LABORATORIES

PASI-GA Pace Analytical Services - Atlanta, GA

PASI-PA Pace Analytical Services - Greensburg

## REPORT OF LABORATORY ANALYSIS

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**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: Plant Yates Ash Ponds 2  
Pace Project No.: 263446

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
263446001	YGWA-3I	EPA 3005A	3568	EPA 6020B	3687
263446003	FB-2-3-28-18	EPA 3005A	3568	EPA 6020B	3687
263446005	YGWA-1D	EPA 3005A	3568	EPA 6020B	3687
263446007	EB-1-3-29-18	EPA 3005A	3568	EPA 6020B	3687
263446009	YGWC-27S	EPA 3005A	3568	EPA 6020B	3687
263446011	YGWC-27I	EPA 3005A	3568	EPA 6020B	3687
263446011	YGWC-27I	EPA 3005A	4448	EPA 6020B	4533
263446013	Dup-4	EPA 3005A	3568	EPA 6020B	3687
263446015	YGWC-28I	EPA 3005A	3568	EPA 6020B	3687
263446017	EB-4-3-30-18	EPA 3005A	3568	EPA 6020B	3687
263446019	YGWC-28S	EPA 3005A	3568	EPA 6020B	3687
263446021	YGWC-26I	EPA 3005A	3568	EPA 6020B	3687
263446023	YGWC-26S	EPA 3005A	3568	EPA 6020B	3687
263446001	YGWA-3I	EPA 7470A	3613	EPA 7470A	3998
263446003	FB-2-3-28-18	EPA 7470A	3613	EPA 7470A	3998
263446005	YGWA-1D	EPA 7470A	3613	EPA 7470A	3998
263446007	EB-1-3-29-18	EPA 7470A	3613	EPA 7470A	3998
263446009	YGWC-27S	EPA 7470A	3613	EPA 7470A	3998
263446011	YGWC-27I	EPA 7470A	3613	EPA 7470A	3998
263446013	Dup-4	EPA 7470A	3613	EPA 7470A	3998
263446015	YGWC-28I	EPA 7470A	3613	EPA 7470A	3998
263446017	EB-4-3-30-18	EPA 7470A	3613	EPA 7470A	3998
263446019	YGWC-28S	EPA 7470A	3613	EPA 7470A	3998
263446021	YGWC-26I	EPA 7470A	3613	EPA 7470A	3998
263446023	YGWC-26S	EPA 7470A	3613	EPA 7470A	3998
263446002	YGWA-3I	EPA 9315	293706		
263446004	FB-2-3-28-18	EPA 9315	293706		
263446006	YGWA-1D	EPA 9315	293706		
263446008	EB-1-3-29-18	EPA 9315	293839		
263446010	YGWC-27S	EPA 9315	293839		
263446012	YGWC-27I	EPA 9315	293839		
263446014	Dup-4	EPA 9315	293839		
263446016	YGWC-28I	EPA 9315	293839		
263446018	EB-4-3-30-18	EPA 9315	293839		
263446020	YGWC-28S	EPA 9315	293839		
263446022	YGWC-26I	EPA 9315	293839		
263446024	YGWC-26S	EPA 9315	293839		
263446002	YGWA-3I	EPA 9320	293707		
263446004	FB-2-3-28-18	EPA 9320	293707		
263446006	YGWA-1D	EPA 9320	293707		
263446008	EB-1-3-29-18	EPA 9320	293840		
263446010	YGWC-27S	EPA 9320	293840		
263446012	YGWC-27I	EPA 9320	293840		
263446014	Dup-4	EPA 9320	293840		
263446016	YGWC-28I	EPA 9320	293840		

**REPORT OF LABORATORY ANALYSIS**

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**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: Plant Yates Ash Ponds 2  
Pace Project No.: 263446

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
263446018	EB-4-3-30-18	EPA 9320	293840		
263446020	YGWC-28S	EPA 9320	293840		
263446022	YGWC-26I	EPA 9320	293840		
263446024	YGWC-26S	EPA 9320	293840		
263446002	YGWA-3I	Total Radium Calculation	295021		
263446004	FB-2-3-28-18	Total Radium Calculation	295021		
263446006	YGWA-1D	Total Radium Calculation	295021		
263446008	EB-1-3-29-18	Total Radium Calculation	295021		
263446010	YGWC-27S	Total Radium Calculation	295021		
263446012	YGWC-27I	Total Radium Calculation	295021		
263446014	Dup-4	Total Radium Calculation	295021		
263446016	YGWC-28I	Total Radium Calculation	295021		
263446018	EB-4-3-30-18	Total Radium Calculation	295021		
263446020	YGWC-28S	Total Radium Calculation	295021		
263446022	YGWC-26I	Total Radium Calculation	295021		
263446024	YGWC-26S	Total Radium Calculation	295021		
263446001	YGWA-3I	EPA 300.0	3752		
263446003	FB-2-3-28-18	EPA 300.0	3752		
263446005	YGWA-1D	EPA 300.0	3752		
263446007	EB-1-3-29-18	EPA 300.0	3752		
263446009	YGWC-27S	EPA 300.0	3752		
263446011	YGWC-27I	EPA 300.0	3752		
263446013	Dup-4	EPA 300.0	3752		
263446015	YGWC-28I	EPA 300.0	3752		
263446017	EB-4-3-30-18	EPA 300.0	3752		
263446019	YGWC-28S	EPA 300.0	3752		
263446021	YGWC-26I	EPA 300.0	3752		
263446023	YGWC-26S	EPA 300.0	3752		

**REPORT OF LABORATORY ANALYSIS**

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Sample Condition Upon Receipt



Client Name: Georgia Power

WO#: **263446**

PM: **BM** Due Date: **04/09/18**

CLIENT: **GAPower-CCR**

Courier:  Fed Ex  UPS  USPS  Client  Commercial  Pace Other

Tracking #: \_\_\_\_\_

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

Proj. Due Date: \_\_\_\_\_  
Proj. Name: \_\_\_\_\_

Packing Material:  Bubble Wrap  Bubble Bags  None  Other

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

Cooler Temperature 0.4°C Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: 3/31/18/ra

Temp should be above freezing to 6°C

Comments:

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input 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 checked="" type="checkbox"/> <del>No</del> <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)

April 24, 2018

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

RE: Project: Plant Yates Ash Ponds  
Pace Project No.: 263448

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on March 31, 2018. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,



Betsy McDaniel  
betsy.mcdaniel@pacelabs.com  
(770)734-4200  
Project Manager

Enclosures

cc: Maria Padilla, Georgia Power  
Chris Parker, Atlantic Coast Consulting  
Evan Perry, Atlantic Coast Consulting  
Lauren Petty, Southern Company Services, Inc.



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: Plant Yates Ash Ponds

Pace Project No.: 263448

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### Atlanta Certification IDs

110 Technology Parkway Peachtree Corners, GA 30092

Florida DOH Certification #: E87315

Georgia DW Inorganics Certification #: 812

Georgia DW Microbiology Certification #: 812

North Carolina Certification #: 381

South Carolina Certification #: 98011001

Texas Certification #: T104704397-08-TX

Virginia Certification #: 460204

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### Pennsylvania Certification IDs

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

ANAB DOD-ELAP Rad Accreditation #: L2417

Alabama Certification #: 41590

Arizona Certification #: AZ0734

Arkansas Certification

California Certification #: 04222CA

Colorado Certification #: PA01547

Connecticut Certification #: PH-0694

Delaware Certification

EPA Region 4 DW Rad

Florida/TNI Certification #: E87683

Georgia Certification #: C040

Guam Certification

Hawaii Certification

Idaho Certification

Illinois Certification

Indiana Certification

Iowa Certification #: 391

Kansas/TNI Certification #: E-10358

Kentucky Certification #: KY90133

KY WW Permit #: KY0098221

KY WW Permit #: KY0000221

Louisiana DHH/TNI Certification #: LA180012

Louisiana DEQ/TNI Certification #: 4086

Maine Certification #: 2017020

Maryland Certification #: 308

Massachusetts Certification #: M-PA1457

Michigan/PADEP Certification #: 9991

Missouri Certification #: 235

Montana Certification #: Cert0082

Nebraska Certification #: NE-OS-29-14

Nevada Certification #: PA014572018-1

New Hampshire/TNI Certification #: 297617

New Jersey/TNI Certification #: PA051

New Mexico Certification #: PA01457

New York/TNI Certification #: 10888

North Carolina Certification #: 42706

North Dakota Certification #: R-190

Ohio EPA Rad Approval: #41249

Oregon/TNI Certification #: PA200002-010

Pennsylvania/TNI Certification #: 65-00282

Puerto Rico Certification #: PA01457

Rhode Island Certification #: 65-00282

South Dakota Certification

Tennessee Certification #: 02867

Texas/TNI Certification #: T104704188-17-3

Utah/TNI Certification #: PA014572017-9

USDA Soil Permit #: P330-17-00091

Vermont Dept. of Health: ID# VT-0282

Virgin Island/PADEP Certification

Virginia/VELAP Certification #: 9526

Washington Certification #: C868

West Virginia DEP Certification #: 143

West Virginia DHHR Certification #: 9964C

Wisconsin Approve List for Rad

Wyoming Certification #: 8TMS-L

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## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: Plant Yates Ash Ponds

Pace Project No.: 263448

Lab ID	Sample ID	Matrix	Date Collected	Date Received
263448001	YGWA-5D	Water	03/29/18 09:50	03/31/18 11:15
263448002	YGWA-5D	Water	03/29/18 09:50	03/31/18 11:15
263448003	YGWA-5I	Water	03/29/18 11:45	03/31/18 11:15
263448004	YGWA-5I	Water	03/29/18 11:45	03/31/18 11:15
263448005	YGWA-4I	Water	03/29/18 13:40	03/31/18 11:15
263448006	YGWA-4I	Water	03/29/18 13:40	03/31/18 11:15
263448007	EB-2-3-29-18	Water	03/29/18 13:20	03/31/18 11:15
263448008	EB-2-3-29-18	Water	03/29/18 13:20	03/31/18 11:15
263448009	FB-3-3-29-18	Water	03/29/18 15:10	03/31/18 11:15
263448010	FB-3-3-29-18	Water	03/29/18 15:10	03/31/18 11:15
263448011	YGWC-29I	Water	03/29/18 15:30	03/31/18 11:15
263448012	YGWC-29I	Water	03/29/18 15:30	03/31/18 11:15
263448013	Dup-2	Water	03/29/18 00:00	03/31/18 11:15
263448014	Dup-2	Water	03/29/18 00:00	03/31/18 11:15
263448015	Dup-3	Water	03/29/18 00:00	03/31/18 11:15
263448016	Dup-3	Water	03/29/18 00:00	03/31/18 11:15
263448017	YGWA-20S	Water	03/29/18 13:56	03/31/18 11:15
263448018	YGWA-20S	Water	03/29/18 13:56	03/31/18 11:15
263448019	YGWA-21I	Water	03/29/18 11:50	03/31/18 11:15
263448020	YGWA-21I	Water	03/29/18 11:50	03/31/18 11:15
263448021	YGWC-23S	Water	03/30/18 09:01	03/31/18 11:15
263448022	YGWC-23S	Water	03/30/18 09:01	03/31/18 11:15
263448023	YGWC-33S	Water	03/30/18 11:22	03/31/18 11:15
263448024	YGWC-33S	Water	03/30/18 11:22	03/31/18 11:15
263448025	FB-4-3-30-18	Water	03/30/18 11:40	03/31/18 11:15
263448026	FB-4-3-30-18	Water	03/30/18 11:40	03/31/18 11:15
263448027	YGWC-36	Water	03/30/18 10:55	03/31/18 11:15
263448028	YGWC-36	Water	03/30/18 10:55	03/31/18 11:15
263448029	YGWC-24S	Water	03/30/18 12:00	03/31/18 11:15
263448030	YGWC-24S	Water	03/30/18 12:00	03/31/18 11:15
263448031	EB-3-3-30-18	Water	03/30/18 11:40	03/31/18 11:15
263448032	EB-3-3-30-18	Water	03/30/18 11:40	03/31/18 11:15

## REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: Plant Yates Ash Ponds

Pace Project No.: 263448

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
263448001	YGWA-5D	EPA 6020B	CSW	12	PASI-GA
		EPA 7470A	AAP	1	PASI-GA
		EPA 300.0	RLC	1	PASI-GA
263448002	YGWA-5D	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	RMK	1	PASI-PA
263448003	YGWA-5I	EPA 6020B	CSW	12	PASI-GA
		EPA 7470A	AAP	1	PASI-GA
		EPA 300.0	RLC	1	PASI-GA
263448004	YGWA-5I	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	RMK	1	PASI-PA
263448005	YGWA-4I	EPA 6020B	CSW	12	PASI-GA
		EPA 7470A	AAP	1	PASI-GA
		EPA 300.0	RLC	1	PASI-GA
263448006	YGWA-4I	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	RMK	1	PASI-PA
263448007	EB-2-3-29-18	EPA 6020B	CSW	12	PASI-GA
		EPA 7470A	AAP	1	PASI-GA
		EPA 300.0	RLC	1	PASI-GA
263448008	EB-2-3-29-18	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	RMK	1	PASI-PA
263448009	FB-3-3-29-18	EPA 6020B	CSW	12	PASI-GA
		EPA 7470A	AAP	1	PASI-GA
		EPA 300.0	RLC	1	PASI-GA
263448010	FB-3-3-29-18	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	RMK	1	PASI-PA
263448011	YGWC-29I	EPA 6020B	CSW	12	PASI-GA
		EPA 7470A	AAP	1	PASI-GA
		EPA 300.0	RLC	1	PASI-GA
263448012	YGWC-29I	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	RMK	1	PASI-PA
263448013	Dup-2	EPA 6020B	CSW	12	PASI-GA

### REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: Plant Yates Ash Ponds  
Pace Project No.: 263448

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
263448014	Dup-2	EPA 7470A	AAP	1	PASI-GA
		EPA 300.0	RLC	1	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
263448015	Dup-3	Total Radium Calculation	RMK	1	PASI-PA
		EPA 6020B	CSW	12	PASI-GA
263448016	Dup-3	EPA 7470A	AAP	1	PASI-GA
		EPA 300.0	RLC	1	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
263448017	YGWA-20S	Total Radium Calculation	RMK	1	PASI-PA
		EPA 6020B	CSW	12	PASI-GA
263448018	YGWA-20S	EPA 7470A	AAP	1	PASI-GA
		EPA 300.0	RLC	1	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
263448019	YGWA-21I	Total Radium Calculation	RMK	1	PASI-PA
		EPA 6020B	CSW	12	PASI-GA
263448020	YGWA-21I	EPA 7470A	AAP	1	PASI-GA
		EPA 300.0	RLC	1	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
263448021	YGWC-23S	Total Radium Calculation	RMK	1	PASI-PA
		EPA 6020B	CSW	12	PASI-GA
263448022	YGWC-23S	EPA 7470A	AAP	1	PASI-GA
		EPA 300.0	RLC	1	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
263448023	YGWC-33S	Total Radium Calculation	RMK	1	PASI-PA
		EPA 6020B	CSW	12	PASI-GA
263448024	YGWC-33S	EPA 7470A	AAP	1	PASI-GA
		EPA 300.0	RLC	1	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
263448025	FB-4-3-30-18	Total Radium Calculation	RMK	1	PASI-PA
		EPA 6020B	CSW	12	PASI-GA
		EPA 7470A	AAP	1	PASI-GA

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### SAMPLE ANALYTE COUNT

Project: Plant Yates Ash Ponds

Pace Project No.: 263448

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
263448026	FB-4-3-30-18	EPA 300.0	RLC	1	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	RMK	1	PASI-PA
263448027	YGWC-36	EPA 6020B	CSW	12	PASI-GA
		EPA 7470A	AAP	1	PASI-GA
		EPA 300.0	RLC	1	PASI-GA
263448028	YGWC-36	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	RMK	1	PASI-PA
		EPA 6020B	CSW	12	PASI-GA
263448029	YGWC-24S	EPA 7470A	AAP	1	PASI-GA
		EPA 300.0	RLC	1	PASI-GA
		EPA 9315	LAL	1	PASI-PA
263448030	YGWC-24S	EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		EPA 6020B	CSW	12	PASI-GA
		EPA 7470A	AAP	1	PASI-GA
263448031	EB-3-3-30-18	EPA 300.0	RLC	1	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
263448032	EB-3-3-30-18	Total Radium Calculation	CMC	1	PASI-PA

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### ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds

Pace Project No.: 263448

Sample: YGWA-5D		Lab ID: 263448001		Collected: 03/29/18 09:50		Received: 03/31/18 11:15		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6020B MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Antimony	ND	mg/L	0.0030	0.00078	1	04/04/18 10:34	04/05/18 14:21	7440-36-0	
Arsenic	<b>0.00060J</b>	mg/L	0.0050	0.00057	1	04/04/18 10:34	04/05/18 14:21	7440-38-2	
Barium	ND	mg/L	0.010	0.00078	1	04/04/18 10:34	04/05/18 14:21	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	04/04/18 10:34	04/05/18 14:21	7440-41-7	
Cadmium	ND	mg/L	0.0010	0.000093	1	04/04/18 10:34	04/05/18 14:21	7440-43-9	
Chromium	ND	mg/L	0.010	0.0016	1	04/04/18 10:34	04/05/18 14:21	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	04/04/18 10:34	04/05/18 14:21	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	04/04/18 10:34	04/05/18 14:21	7439-92-1	
Lithium	<b>0.0058J</b>	mg/L	0.050	0.00097	1	04/04/18 10:34	04/05/18 14:21	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	04/04/18 10:34	04/05/18 14:21	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	04/04/18 10:34	04/05/18 14:21	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	04/04/18 10:34	04/05/18 14:21	7440-28-0	
<b>7470 Mercury</b>		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00050	0.000036	1	04/06/18 10:45	04/06/18 15:35	7439-97-6	
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0							
Fluoride	ND	mg/L	0.30	0.029	1		04/05/18 05:37	16984-48-8	M1

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### ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds

Pace Project No.: 263448

Sample: YGWA-5I		Lab ID: 263448003		Collected: 03/29/18 11:45		Received: 03/31/18 11:15		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6020B MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Antimony	ND	mg/L	0.0030	0.00078	1	04/04/18 10:34	04/05/18 14:44	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	04/04/18 10:34	04/05/18 14:44	7440-38-2	
Barium	<b>0.021</b>	mg/L	0.010	0.00078	1	04/04/18 10:34	04/05/18 14:44	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	04/04/18 10:34	04/05/18 14:44	7440-41-7	
Cadmium	ND	mg/L	0.0010	0.000093	1	04/04/18 10:34	04/05/18 14:44	7440-43-9	
Chromium	ND	mg/L	0.010	0.0016	1	04/04/18 10:34	04/05/18 14:44	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	04/04/18 10:34	04/05/18 14:44	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	04/04/18 10:34	04/05/18 14:44	7439-92-1	
Lithium	<b>0.0034J</b>	mg/L	0.050	0.00097	1	04/04/18 10:34	04/05/18 14:44	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	04/04/18 10:34	04/05/18 14:44	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	04/04/18 10:34	04/05/18 14:44	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	04/04/18 10:34	04/05/18 14:44	7440-28-0	
<b>7470 Mercury</b>		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00050	0.000036	1	04/06/18 10:45	04/06/18 15:24	7439-97-6	
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0							
Fluoride	ND	mg/L	0.30	0.029	1		04/05/18 06:40	16984-48-8	

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### ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds

Pace Project No.: 263448

Sample: YGWA-4I		Lab ID: 263448005		Collected: 03/29/18 13:40		Received: 03/31/18 11:15		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6020B MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Antimony	ND	mg/L	0.0030	0.00078	1	04/04/18 10:34	04/05/18 14:50	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	04/04/18 10:34	04/05/18 14:50	7440-38-2	
Barium	<b>0.014</b>	mg/L	0.010	0.00078	1	04/04/18 10:34	04/05/18 14:50	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	04/04/18 10:34	04/05/18 14:50	7440-41-7	
Cadmium	ND	mg/L	0.0010	0.000093	1	04/04/18 10:34	04/05/18 14:50	7440-43-9	
Chromium	ND	mg/L	0.010	0.0016	1	04/04/18 10:34	04/05/18 14:50	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	04/04/18 10:34	04/05/18 14:50	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	04/04/18 10:34	04/05/18 14:50	7439-92-1	
Lithium	<b>0.014J</b>	mg/L	0.050	0.00097	1	04/04/18 10:34	04/05/18 14:50	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	04/04/18 10:34	04/05/18 14:50	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	04/04/18 10:34	04/05/18 14:50	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	04/04/18 10:34	04/05/18 14:50	7440-28-0	
<b>7470 Mercury</b>		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00050	0.000036	1	04/06/18 10:45	04/06/18 15:37	7439-97-6	
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0							
Fluoride	ND	mg/L	0.30	0.029	1		04/05/18 07:01	16984-48-8	

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### ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds

Pace Project No.: 263448

Sample: EB-2-3-29-18		Lab ID: 263448007		Collected: 03/29/18 13:20		Received: 03/31/18 11:15		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6020B MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Antimony	ND	mg/L	0.0030	0.00078	1	04/04/18 10:34	04/05/18 14:55	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	04/04/18 10:34	04/05/18 14:55	7440-38-2	
Barium	ND	mg/L	0.010	0.00078	1	04/04/18 10:34	04/05/18 14:55	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	04/04/18 10:34	04/05/18 14:55	7440-41-7	
Cadmium	ND	mg/L	0.0010	0.000093	1	04/04/18 10:34	04/05/18 14:55	7440-43-9	
Chromium	ND	mg/L	0.010	0.0016	1	04/04/18 10:34	04/05/18 14:55	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	04/04/18 10:34	04/05/18 14:55	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	04/04/18 10:34	04/05/18 14:55	7439-92-1	
Lithium	ND	mg/L	0.050	0.00097	1	04/04/18 10:34	04/05/18 14:55	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	04/04/18 10:34	04/05/18 14:55	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	04/04/18 10:34	04/05/18 14:55	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	04/04/18 10:34	04/05/18 14:55	7440-28-0	
<b>7470 Mercury</b>		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00050	0.000036	1	04/06/18 10:45	04/06/18 15:40	7439-97-6	
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0							
Fluoride	ND	mg/L	0.30	0.029	1		04/05/18 07:22	16984-48-8	

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### ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds

Pace Project No.: 263448

Sample: <b>FB-3-3-29-18</b>		Lab ID: <b>263448009</b>		Collected: 03/29/18 15:10		Received: 03/31/18 11:15		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6020B MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Antimony	ND	mg/L	0.0030	0.00078	1	04/04/18 10:34	04/05/18 15:01	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	04/04/18 10:34	04/05/18 15:01	7440-38-2	
Barium	ND	mg/L	0.010	0.00078	1	04/04/18 10:34	04/05/18 15:01	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	04/04/18 10:34	04/05/18 15:01	7440-41-7	
Cadmium	ND	mg/L	0.0010	0.000093	1	04/04/18 10:34	04/05/18 15:01	7440-43-9	
Chromium	ND	mg/L	0.010	0.0016	1	04/04/18 10:34	04/05/18 15:01	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	04/04/18 10:34	04/05/18 15:01	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	04/04/18 10:34	04/05/18 15:01	7439-92-1	
Lithium	ND	mg/L	0.050	0.00097	1	04/04/18 10:34	04/05/18 15:01	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	04/04/18 10:34	04/05/18 15:01	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	04/04/18 10:34	04/05/18 15:01	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	04/04/18 10:34	04/05/18 15:01	7440-28-0	
<b>7470 Mercury</b>		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00050	0.000036	1	04/06/18 10:45	04/06/18 15:42	7439-97-6	
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0							
Fluoride	ND	mg/L	0.30	0.029	1		04/05/18 07:44	16984-48-8	

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### ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds

Pace Project No.: 263448

Sample: YGWC-29I		Lab ID: 263448011		Collected: 03/29/18 15:30		Received: 03/31/18 11:15		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6020B MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Antimony	ND	mg/L	0.0030	0.00078	1	04/04/18 10:34	04/05/18 15:34	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	04/04/18 10:34	04/05/18 15:34	7440-38-2	
Barium	<b>0.055</b>	mg/L	0.010	0.00078	1	04/04/18 10:34	04/05/18 15:34	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	04/04/18 10:34	04/05/18 15:34	7440-41-7	
Cadmium	ND	mg/L	0.0010	0.000093	1	04/04/18 10:34	04/05/18 15:34	7440-43-9	
Chromium	ND	mg/L	0.010	0.0016	1	04/04/18 10:34	04/05/18 15:34	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	04/04/18 10:34	04/05/18 15:34	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	04/04/18 10:34	04/05/18 15:34	7439-92-1	
Lithium	<b>0.0049J</b>	mg/L	0.050	0.00097	1	04/04/18 10:34	04/05/18 15:34	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	04/04/18 10:34	04/05/18 15:34	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	04/04/18 10:34	04/05/18 15:34	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	04/04/18 10:34	04/05/18 15:34	7440-28-0	
<b>7470 Mercury</b>		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00050	0.000036	1	04/06/18 10:45	04/06/18 15:49	7439-97-6	
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0							
Fluoride	ND	mg/L	0.30	0.029	1		04/05/18 08:05	16984-48-8	

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### ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds  
Pace Project No.: 263448

Sample: Dup-2		Lab ID: 263448013		Collected: 03/29/18 00:00		Received: 03/31/18 11:15		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6020B MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Antimony	ND	mg/L	0.0030	0.00078	1	04/04/18 10:34	04/05/18 15:39	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	04/04/18 10:34	04/05/18 15:39	7440-38-2	
Barium	<b>0.021</b>	mg/L	0.010	0.00078	1	04/04/18 10:34	04/05/18 15:39	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	04/04/18 10:34	04/05/18 15:39	7440-41-7	
Cadmium	ND	mg/L	0.0010	0.000093	1	04/04/18 10:34	04/05/18 15:39	7440-43-9	
Chromium	ND	mg/L	0.010	0.0016	1	04/04/18 10:34	04/05/18 15:39	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	04/04/18 10:34	04/05/18 15:39	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	04/04/18 10:34	04/05/18 15:39	7439-92-1	
Lithium	<b>0.0036J</b>	mg/L	0.050	0.00097	1	04/04/18 10:34	04/05/18 15:39	7439-93-2	
Molybdenum	<b>0.0021J</b>	mg/L	0.010	0.0019	1	04/04/18 10:34	04/05/18 15:39	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	04/04/18 10:34	04/05/18 15:39	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	04/04/18 10:34	04/05/18 15:39	7440-28-0	
<b>7470 Mercury</b>		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00050	0.000036	1	04/06/18 10:45	04/06/18 15:52	7439-97-6	
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0							
Fluoride	ND	mg/L	0.30	0.029	1		04/05/18 08:26	16984-48-8	

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### ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds

Pace Project No.: 263448

Sample: Dup-3		Lab ID: 263448015		Collected: 03/29/18 00:00		Received: 03/31/18 11:15		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6020B MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Antimony	ND	mg/L	0.0030	0.00078	1	04/04/18 10:34	04/05/18 15:45	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	04/04/18 10:34	04/05/18 15:45	7440-38-2	
Barium	<b>0.013</b>	mg/L	0.010	0.00078	1	04/04/18 10:34	04/05/18 15:45	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	04/04/18 10:34	04/05/18 15:45	7440-41-7	
Cadmium	ND	mg/L	0.0010	0.000093	1	04/04/18 10:34	04/05/18 15:45	7440-43-9	
Chromium	ND	mg/L	0.010	0.0016	1	04/04/18 10:34	04/05/18 15:45	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	04/04/18 10:34	04/05/18 15:45	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	04/04/18 10:34	04/05/18 15:45	7439-92-1	
Lithium	ND	mg/L	0.050	0.00097	1	04/04/18 10:34	04/05/18 15:45	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	04/04/18 10:34	04/05/18 15:45	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	04/04/18 10:34	04/05/18 15:45	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	04/04/18 10:34	04/05/18 15:45	7440-28-0	
<b>7470 Mercury</b>		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00050	0.000036	1	04/06/18 10:45	04/06/18 15:54	7439-97-6	
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0							
Fluoride	ND	mg/L	0.30	0.029	1		04/05/18 08:47	16984-48-8	

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### ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds

Pace Project No.: 263448

<b>Sample: YGWA-20S</b>		<b>Lab ID: 263448017</b>		Collected: 03/29/18 13:56		Received: 03/31/18 11:15		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6020B MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Antimony	ND	mg/L	0.0030	0.00078	1	04/04/18 10:34	04/05/18 15:51	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	04/04/18 10:34	04/05/18 15:51	7440-38-2	
Barium	<b>0.014</b>	mg/L	0.010	0.00078	1	04/04/18 10:34	04/05/18 15:51	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	04/04/18 10:34	04/05/18 15:51	7440-41-7	
Cadmium	ND	mg/L	0.0010	0.000093	1	04/04/18 10:34	04/05/18 15:51	7440-43-9	
Chromium	ND	mg/L	0.010	0.0016	1	04/04/18 10:34	04/05/18 15:51	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	04/04/18 10:34	04/05/18 15:51	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	04/04/18 10:34	04/05/18 15:51	7439-92-1	
Lithium	ND	mg/L	0.050	0.00097	1	04/04/18 10:34	04/05/18 15:51	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	04/04/18 10:34	04/05/18 15:51	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	04/04/18 10:34	04/05/18 15:51	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	04/04/18 10:34	04/05/18 15:51	7440-28-0	
<b>7470 Mercury</b>		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00050	0.000036	1	04/06/18 10:45	04/06/18 15:56	7439-97-6	
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0							
Fluoride	ND	mg/L	0.30	0.029	1		04/05/18 10:33	16984-48-8	

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## ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds

Pace Project No.: 263448

Sample: YGWA-211		Lab ID: 263448019		Collected: 03/29/18 11:50		Received: 03/31/18 11:15		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6020B MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Antimony	ND	mg/L	0.0030	0.00078	1	04/04/18 10:34	04/05/18 15:57	7440-36-0	
Arsenic	<b>0.0015J</b>	mg/L	0.0050	0.00057	1	04/04/18 10:34	04/05/18 15:57	7440-38-2	
Barium	ND	mg/L	0.010	0.00078	1	04/04/18 10:34	04/05/18 15:57	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	04/04/18 10:34	04/05/18 15:57	7440-41-7	
Cadmium	ND	mg/L	0.0010	0.000093	1	04/04/18 10:34	04/05/18 15:57	7440-43-9	
Chromium	ND	mg/L	0.010	0.0016	1	04/04/18 10:34	04/05/18 15:57	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	04/04/18 10:34	04/05/18 15:57	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	04/04/18 10:34	04/05/18 15:57	7439-92-1	
Lithium	<b>0.0062J</b>	mg/L	0.050	0.00097	1	04/04/18 10:34	04/05/18 15:57	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	04/04/18 10:34	04/05/18 15:57	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	04/04/18 10:34	04/05/18 15:57	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	04/04/18 10:34	04/05/18 15:57	7440-28-0	
<b>7470 Mercury</b>		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00050	0.000036	1	04/06/18 10:45	04/06/18 15:59	7439-97-6	
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0							
Fluoride	ND	mg/L	0.30	0.029	1		04/05/18 11:15	16984-48-8	

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### ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds

Pace Project No.: 263448

Sample: YGWC-23S		Lab ID: 263448021		Collected: 03/30/18 09:01		Received: 03/31/18 11:15		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6020B MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Antimony	ND	mg/L	0.0030	0.00078	1	04/04/18 10:34	04/05/18 16:02	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	04/04/18 10:34	04/05/18 16:02	7440-38-2	
Barium	<b>0.030</b>	mg/L	0.010	0.00078	1	04/04/18 10:34	04/05/18 16:02	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	04/04/18 10:34	04/05/18 16:02	7440-41-7	
Cadmium	ND	mg/L	0.0010	0.000093	1	04/04/18 10:34	04/05/18 16:02	7440-43-9	
Chromium	ND	mg/L	0.010	0.0016	1	04/04/18 10:34	04/05/18 16:02	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	04/04/18 10:34	04/05/18 16:02	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	04/04/18 10:34	04/05/18 16:02	7439-92-1	
Lithium	<b>0.0039J</b>	mg/L	0.050	0.00097	1	04/04/18 10:34	04/05/18 16:02	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	04/04/18 10:34	04/05/18 16:02	7439-98-7	
Selenium	<b>0.028</b>	mg/L	0.010	0.0014	1	04/04/18 10:34	04/05/18 16:02	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	04/04/18 10:34	04/05/18 16:02	7440-28-0	
<b>7470 Mercury</b>		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00050	0.000036	1	04/06/18 10:45	04/06/18 16:01	7439-97-6	
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0							
Fluoride	ND	mg/L	0.30	0.029	1		04/05/18 11:37	16984-48-8	

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### ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds

Pace Project No.: 263448

Sample: YGWC-33S		Lab ID: 263448023		Collected: 03/30/18 11:22		Received: 03/31/18 11:15		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6020B MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Antimony	ND	mg/L	0.0030	0.00078	1	04/04/18 10:34	04/05/18 16:08	7440-36-0	
Arsenic	<b>0.0049J</b>	mg/L	0.0050	0.00057	1	04/04/18 10:34	04/05/18 16:08	7440-38-2	
Barium	<b>0.012</b>	mg/L	0.010	0.00078	1	04/04/18 10:34	04/05/18 16:08	7440-39-3	
Beryllium	<b>0.018</b>	mg/L	0.015	0.00025	5	04/04/18 10:34	04/06/18 13:36	7440-41-7	
Cadmium	<b>0.0028</b>	mg/L	0.0010	0.000093	1	04/04/18 10:34	04/05/18 16:08	7440-43-9	
Chromium	ND	mg/L	0.010	0.0016	1	04/04/18 10:34	04/05/18 16:08	7440-47-3	
Cobalt	<b>0.013</b>	mg/L	0.010	0.00052	1	04/04/18 10:34	04/05/18 16:08	7440-48-4	
Lead	ND	mg/L	0.025	0.0014	5	04/04/18 10:34	04/06/18 13:36	7439-92-1	D3
Lithium	<b>0.024J</b>	mg/L	0.25	0.0049	5	04/04/18 10:34	04/06/18 13:36	7439-93-2	D3
Molybdenum	ND	mg/L	0.010	0.0019	1	04/04/18 10:34	04/05/18 16:08	7439-98-7	
Selenium	<b>0.011</b>	mg/L	0.010	0.0014	1	04/04/18 10:34	04/05/18 16:08	7782-49-2	
Thallium	ND	mg/L	0.0050	0.00071	5	04/04/18 10:34	04/06/18 13:36	7440-28-0	D3
<b>7470 Mercury</b>		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00050	0.000036	1	04/06/18 10:45	04/06/18 16:03	7439-97-6	
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0							
Fluoride	<b>1.4</b>	mg/L	0.30	0.029	1		04/05/18 11:58	16984-48-8	

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## ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds

Pace Project No.: 263448

Sample: <b>FB-4-3-30-18</b>		Lab ID: <b>263448025</b>		Collected: 03/30/18 11:40		Received: 03/31/18 11:15		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6020B MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Antimony	ND	mg/L	0.0030	0.00078	1	04/04/18 10:34	04/05/18 16:14	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	04/04/18 10:34	04/05/18 16:14	7440-38-2	
Barium	ND	mg/L	0.010	0.00078	1	04/04/18 10:34	04/05/18 16:14	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	04/04/18 10:34	04/05/18 16:14	7440-41-7	
Cadmium	ND	mg/L	0.0010	0.000093	1	04/04/18 10:34	04/05/18 16:14	7440-43-9	
Chromium	ND	mg/L	0.010	0.0016	1	04/04/18 10:34	04/05/18 16:14	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	04/04/18 10:34	04/05/18 16:14	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	04/04/18 10:34	04/05/18 16:14	7439-92-1	
Lithium	ND	mg/L	0.050	0.00097	1	04/04/18 10:34	04/05/18 16:14	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	04/04/18 10:34	04/05/18 16:14	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	04/04/18 10:34	04/05/18 16:14	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	04/04/18 10:34	04/05/18 16:14	7440-28-0	
<b>7470 Mercury</b>		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00050	0.000036	1	04/06/18 10:45	04/06/18 16:06	7439-97-6	
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0							
Fluoride	ND	mg/L	0.30	0.029	1		04/05/18 12:19	16984-48-8	

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### ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds

Pace Project No.: 263448

Sample: YGWC-36		Lab ID: 263448027		Collected: 03/30/18 10:55		Received: 03/31/18 11:15		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6020B MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Antimony	ND	mg/L	0.0030	0.00078	1	04/04/18 10:34	04/05/18 16:19	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	04/04/18 10:34	04/05/18 16:19	7440-38-2	
Barium	<b>0.043</b>	mg/L	0.010	0.00078	1	04/04/18 10:34	04/05/18 16:19	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	04/04/18 10:34	04/05/18 16:19	7440-41-7	
Cadmium	ND	mg/L	0.0010	0.000093	1	04/04/18 10:34	04/05/18 16:19	7440-43-9	
Chromium	ND	mg/L	0.010	0.0016	1	04/04/18 10:34	04/05/18 16:19	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	04/04/18 10:34	04/05/18 16:19	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	04/04/18 10:34	04/05/18 16:19	7439-92-1	
Lithium	<b>0.0061J</b>	mg/L	0.050	0.00097	1	04/04/18 10:34	04/05/18 16:19	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	04/04/18 10:34	04/05/18 16:19	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	04/04/18 10:34	04/05/18 16:19	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	04/04/18 10:34	04/05/18 16:19	7440-28-0	
<b>7470 Mercury</b>		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00050	0.000036	1	04/06/18 10:45	04/06/18 16:08	7439-97-6	
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0							
Fluoride	ND	mg/L	0.30	0.029	1		04/05/18 12:40	16984-48-8	

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### ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds  
Pace Project No.: 263448

<b>Sample: YGWC-24S</b>		<b>Lab ID: 263448029</b>		Collected: 03/30/18 12:00		Received: 03/31/18 11:15		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6020B MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Antimony	ND	mg/L	0.0030	0.00078	1	04/04/18 10:34	04/05/18 16:25	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	04/04/18 10:34	04/05/18 16:25	7440-38-2	
Barium	<b>0.020</b>	mg/L	0.010	0.00078	1	04/04/18 10:34	04/05/18 16:25	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	04/04/18 10:34	04/05/18 16:25	7440-41-7	
Cadmium	ND	mg/L	0.0010	0.000093	1	04/04/18 10:34	04/05/18 16:25	7440-43-9	
Chromium	ND	mg/L	0.010	0.0016	1	04/04/18 10:34	04/05/18 16:25	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	04/04/18 10:34	04/05/18 16:25	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	04/04/18 10:34	04/05/18 16:25	7439-92-1	
Lithium	ND	mg/L	0.050	0.00097	1	04/04/18 10:34	04/05/18 16:25	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	04/04/18 10:34	04/05/18 16:25	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	04/04/18 10:34	04/05/18 16:25	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	04/04/18 10:34	04/05/18 16:25	7440-28-0	
<b>7470 Mercury</b>		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00050	0.000036	1	04/06/18 10:45	04/06/18 16:11	7439-97-6	
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0							
Fluoride	ND	mg/L	0.30	0.029	1		04/05/18 13:01	16984-48-8	

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### ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds

Pace Project No.: 263448

Sample: EB-3-3-30-18		Lab ID: 263448031		Collected: 03/30/18 11:40		Received: 03/31/18 11:15		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6020B MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Antimony	ND	mg/L	0.0030	0.00078	1	04/04/18 10:34	04/05/18 16:55	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00057	1	04/04/18 10:34	04/05/18 16:55	7440-38-2	
Barium	ND	mg/L	0.010	0.00078	1	04/04/18 10:34	04/05/18 16:55	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000050	1	04/04/18 10:34	04/05/18 16:55	7440-41-7	
Cadmium	ND	mg/L	0.0010	0.000093	1	04/04/18 10:34	04/05/18 16:55	7440-43-9	
Chromium	ND	mg/L	0.010	0.0016	1	04/04/18 10:34	04/05/18 16:55	7440-47-3	
Cobalt	ND	mg/L	0.010	0.00052	1	04/04/18 10:34	04/05/18 16:55	7440-48-4	
Lead	ND	mg/L	0.0050	0.00027	1	04/04/18 10:34	04/05/18 16:55	7439-92-1	
Lithium	ND	mg/L	0.050	0.00097	1	04/04/18 10:34	04/05/18 16:55	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	04/04/18 10:34	04/05/18 16:55	7439-98-7	
Selenium	ND	mg/L	0.010	0.0014	1	04/04/18 10:34	04/05/18 16:55	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	04/04/18 10:34	04/05/18 16:55	7440-28-0	
<b>7470 Mercury</b>		Analytical Method: EPA 7470A Preparation Method: EPA 7470A							
Mercury	ND	mg/L	0.00050	0.000036	1	04/06/18 10:45	04/06/18 16:18	7439-97-6	
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0							
Fluoride	ND	mg/L	0.30	0.029	1		04/05/18 13:22	16984-48-8	

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### QUALITY CONTROL DATA

Project: Plant Yates Ash Ponds  
Pace Project No.: 263448

QC Batch: 3616 Analysis Method: EPA 7470A  
QC Batch Method: EPA 7470A Analysis Description: 7470 Mercury  
Associated Lab Samples: 263448001, 263448003, 263448005, 263448007, 263448009, 263448011, 263448013, 263448015, 263448017, 263448019, 263448021, 263448023, 263448025, 263448027, 263448029, 263448031

METHOD BLANK: 18425 Matrix: Water  
Associated Lab Samples: 263448001, 263448003, 263448005, 263448007, 263448009, 263448011, 263448013, 263448015, 263448017, 263448019, 263448021, 263448023, 263448025, 263448027, 263448029, 263448031

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00050	0.000036	04/06/18 15:19	

LABORATORY CONTROL SAMPLE: 18426

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	.0025	0.0023	92	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 19655 19656

Parameter	Units	263448003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	mg/L	ND	.0025	.0025	0.0023	0.0020	93	81	75-125	14	20	

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

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### QUALITY CONTROL DATA

Project: Plant Yates Ash Ponds  
Pace Project No.: 263448

QC Batch: 3707 Analysis Method: EPA 6020B  
QC Batch Method: EPA 3005A Analysis Description: 6020B MET  
Associated Lab Samples: 263448001, 263448003, 263448005, 263448007, 263448009, 263448011, 263448013, 263448015, 263448017, 263448019, 263448021, 263448023, 263448025, 263448027, 263448029, 263448031

METHOD BLANK: 18765 Matrix: Water  
Associated Lab Samples: 263448001, 263448003, 263448005, 263448007, 263448009, 263448011, 263448013, 263448015, 263448017, 263448019, 263448021, 263448023, 263448025, 263448027, 263448029, 263448031

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00078	04/05/18 14:10	
Arsenic	mg/L	ND	0.0050	0.00057	04/05/18 14:10	
Barium	mg/L	ND	0.010	0.00078	04/05/18 14:10	
Beryllium	mg/L	ND	0.0030	0.000050	04/05/18 14:10	
Cadmium	mg/L	ND	0.0010	0.000093	04/05/18 14:10	
Chromium	mg/L	ND	0.010	0.0016	04/05/18 14:10	
Cobalt	mg/L	ND	0.010	0.00052	04/05/18 14:10	
Lead	mg/L	ND	0.0050	0.00027	04/05/18 14:10	
Lithium	mg/L	ND	0.050	0.00097	04/05/18 14:10	
Molybdenum	mg/L	ND	0.010	0.0019	04/05/18 14:10	
Selenium	mg/L	ND	0.010	0.0014	04/05/18 14:10	
Thallium	mg/L	ND	0.0010	0.00014	04/05/18 14:10	

LABORATORY CONTROL SAMPLE: 18766

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	.1	0.10	100	80-120	
Arsenic	mg/L	.1	0.096	96	80-120	
Barium	mg/L	.1	0.098	98	80-120	
Beryllium	mg/L	.1	0.10	100	80-120	
Cadmium	mg/L	.1	0.10	101	80-120	
Chromium	mg/L	.1	0.10	102	80-120	
Cobalt	mg/L	.1	0.10	100	80-120	
Lead	mg/L	.1	0.10	100	80-120	
Lithium	mg/L	.1	0.11	106	80-120	
Molybdenum	mg/L	.1	0.10	101	80-120	
Selenium	mg/L	.1	0.098	98	80-120	
Thallium	mg/L	.1	0.10	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 18767 18768

Parameter	Units	263448001 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	Spike Conc.	Result	Result						
Antimony	mg/L	ND	.1	.1	0.098	0.097	98	96	75-125	1	20	
Arsenic	mg/L	0.00060J	.1	.1	0.096	0.096	96	96	75-125	0	20	
Barium	mg/L	ND	.1	.1	0.11	0.10	98	96	75-125	2	20	
Beryllium	mg/L	ND	.1	.1	0.097	0.094	97	94	75-125	2	20	

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### QUALITY CONTROL DATA

Project: Plant Yates Ash Ponds

Pace Project No.: 263448

Parameter	Units	MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 18767		18768		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
		263448001 Result	MS Spike Conc.	MSD Spike Conc.								
Cadmium	mg/L	ND	.1	.1	0.098	0.096	98	96	75-125	1	20	
Chromium	mg/L	ND	.1	.1	0.097	0.095	97	95	75-125	3	20	
Cobalt	mg/L	ND	.1	.1	0.098	0.095	98	95	75-125	3	20	
Lead	mg/L	ND	.1	.1	0.098	0.095	98	95	75-125	4	20	
Lithium	mg/L	0.0058J	.1	.1	0.10	0.099	97	93	75-125	4	20	
Molybdenum	mg/L	ND	.1	.1	0.10	0.099	100	97	75-125	2	20	
Selenium	mg/L	ND	.1	.1	0.099	0.097	99	97	75-125	2	20	
Thallium	mg/L	ND	.1	.1	0.10	0.098	100	98	75-125	2	20	

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### QUALITY CONTROL DATA

Project: Plant Yates Ash Ponds  
Pace Project No.: 263448

QC Batch: 3754 Analysis Method: EPA 300.0  
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions  
Associated Lab Samples: 263448001, 263448003, 263448005, 263448007, 263448009, 263448011, 263448013, 263448015, 263448017, 263448019, 263448021, 263448023, 263448025, 263448027, 263448029, 263448031

METHOD BLANK: 18952 Matrix: Water  
Associated Lab Samples: 263448001, 263448003, 263448005, 263448007, 263448009, 263448011, 263448013, 263448015, 263448017, 263448019, 263448021, 263448023, 263448025, 263448027, 263448029, 263448031

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Fluoride	mg/L	ND	0.30	0.029	04/05/18 04:15	

LABORATORY CONTROL SAMPLE: 18953

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

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 18954 18955

Parameter	Units	263448001 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	9.7	9.6	95	94	90-110	1	15	

MATRIX SPIKE SAMPLE: 18956

Parameter	Units	263448001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Fluoride	mg/L	ND	10	9.1	89	90-110 M1	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds

Pace Project No.: 263448

**Sample: YGWA-5D**      **Lab ID: 263448002**      Collected: 03/29/18 09:50      Received: 03/31/18 11:15      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	<b>2.70 ± 0.707 (0.549)</b> C:89% T:NA	pCi/L	04/11/18 09:11	13982-63-3	
Radium-228	EPA 9320	<b>0.720 ± 0.367 (0.626)</b> C:78% T:84%	pCi/L	04/10/18 12:56	15262-20-1	
Total Radium	Total Radium Calculation	<b>3.42 ± 1.07 (1.18)</b>	pCi/L	04/16/18 15:54	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds

Pace Project No.: 263448

**Sample: YGWA-5I**      **Lab ID: 263448004**      Collected: 03/29/18 11:45      Received: 03/31/18 11:15      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	<b>0.353 ± 0.221 (0.284)</b> C:92% T:NA	pCi/L	04/11/18 08:59	13982-63-3	
Radium-228	EPA 9320	<b>0.295 ± 0.284 (0.576)</b> C:80% T:85%	pCi/L	04/10/18 12:57	15262-20-1	
Total Radium	Total Radium Calculation	<b>0.648 ± 0.505 (0.860)</b>	pCi/L	04/16/18 15:54	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds

Pace Project No.: 263448

**Sample: YGWA-4I**      **Lab ID: 263448006**      Collected: 03/29/18 13:40      Received: 03/31/18 11:15      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	<b>0.703 ± 0.320 (0.347)</b> C:84% T:NA	pCi/L	04/11/18 08:59	13982-63-3	
Radium-228	EPA 9320	<b>-0.457 ± 0.415 (1.09)</b> C:77% T:75%	pCi/L	04/10/18 16:00	15262-20-1	
Total Radium	Total Radium Calculation	<b>0.703 ± 0.735 (1.44)</b>	pCi/L	04/16/18 15:54	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds

Pace Project No.: 263448

**Sample: EB-2-3-29-18**      **Lab ID: 263448008**      Collected: 03/29/18 13:20      Received: 03/31/18 11:15      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	<b>0.169 ± 0.185 (0.362)</b> <b>C:93% T:NA</b>	pCi/L	04/11/18 08:59	13982-63-3	
Radium-228	EPA 9320	<b>0.401 ± 0.471 (0.988)</b> <b>C:75% T:80%</b>	pCi/L	04/10/18 16:00	15262-20-1	
Total Radium	Total Radium Calculation	<b>0.570 ± 0.656 (1.35)</b>	pCi/L	04/16/18 15:54	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds

Pace Project No.: 263448

**Sample: FB-3-3-29-18**      **Lab ID: 263448010**      Collected: 03/29/18 15:10      Received: 03/31/18 11:15      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	<b>0.314 ± 0.220 (0.338)</b> C:94% T:NA	pCi/L	04/11/18 08:59	13982-63-3	
Radium-228	EPA 9320	<b>0.368 ± 0.444 (0.932)</b> C:77% T:75%	pCi/L	04/10/18 16:00	15262-20-1	
Total Radium	Total Radium Calculation	<b>0.682 ± 0.664 (1.27)</b>	pCi/L	04/16/18 15:54	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds

Pace Project No.: 263448

**Sample: YGWC-291**      **Lab ID: 263448012**      Collected: 03/29/18 15:30      Received: 03/31/18 11:15      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	<b>0.631 ± 0.294 (0.331)</b> C:92% T:NA	pCi/L	04/11/18 08:59	13982-63-3	
Radium-228	EPA 9320	<b>0.734 ± 0.524 (0.999)</b> C:72% T:80%	pCi/L	04/10/18 16:00	15262-20-1	
Total Radium	Total Radium Calculation	<b>1.37 ± 0.818 (1.33)</b>	pCi/L	04/16/18 15:54	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds

Pace Project No.: 263448

**Sample: Dup-2**      **Lab ID: 263448014**      Collected: 03/29/18 00:00      Received: 03/31/18 11:15      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	<b>0.395 ± 0.257 (0.407)</b> C:93% T:NA	pCi/L	04/11/18 08:59	13982-63-3	
Radium-228	EPA 9320	<b>0.624 ± 0.543 (1.08)</b> C:69% T:73%	pCi/L	04/10/18 16:00	15262-20-1	
Total Radium	Total Radium Calculation	<b>1.02 ± 0.800 (1.49)</b>	pCi/L	04/16/18 15:54	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds

Pace Project No.: 263448

**Sample: Dup-3**      **Lab ID: 263448016**      Collected: 03/29/18 00:00      Received: 03/31/18 11:15      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	<b>0.137 ± 0.185 (0.391)</b> <b>C:92% T:NA</b>	pCi/L	04/11/18 08:59	13982-63-3	
Radium-228	EPA 9320	<b>0.646 ± 0.487 (0.944)</b> <b>C:78% T:80%</b>	pCi/L	04/10/18 16:01	15262-20-1	
Total Radium	Total Radium Calculation	<b>0.783 ± 0.672 (1.34)</b>	pCi/L	04/16/18 15:54	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds

Pace Project No.: 263448

**Sample: YGWA-20S**      **Lab ID: 263448018**      Collected: 03/29/18 13:56      Received: 03/31/18 11:15      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	<b>0.490 ± 0.263 (0.343)</b> C:97% T:NA	pCi/L	04/11/18 08:59	13982-63-3	
Radium-228	EPA 9320	<b>1.24 ± 0.616 (1.06)</b> C:76% T:79%	pCi/L	04/10/18 16:01	15262-20-1	
Total Radium	Total Radium Calculation	<b>1.73 ± 0.879 (1.40)</b>	pCi/L	04/16/18 15:54	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds

Pace Project No.: 263448

**Sample: YGWA-211**      **Lab ID: 263448020**      Collected: 03/29/18 11:50      Received: 03/31/18 11:15      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	<b>1.03 ± 0.393 (0.364)</b> C:86% T:NA	pCi/L	04/11/18 08:59	13982-63-3	
Radium-228	EPA 9320	<b>0.879 ± 0.587 (1.12)</b> C:79% T:76%	pCi/L	04/10/18 16:01	15262-20-1	
Total Radium	Total Radium Calculation	<b>1.91 ± 0.980 (1.48)</b>	pCi/L	04/16/18 15:54	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds

Pace Project No.: 263448

**Sample: YGWC-23S**      **Lab ID: 263448022**      Collected: 03/30/18 09:01      Received: 03/31/18 11:15      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	<b>0.444 ± 0.250 (0.295)</b> <b>C:84% T:NA</b>	pCi/L	04/11/18 10:37	13982-63-3	
Radium-228	EPA 9320	<b>0.215 ± 0.447 (0.988)</b> <b>C:75% T:85%</b>	pCi/L	04/10/18 16:01	15262-20-1	
Total Radium	Total Radium Calculation	<b>0.659 ± 0.697 (1.28)</b>	pCi/L	04/16/18 15:54	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds

Pace Project No.: 263448

**Sample: YGWC-33S**      **Lab ID: 263448024**      Collected: 03/30/18 11:22      Received: 03/31/18 11:15      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	<b>0.607 ± 0.287 (0.323)</b> <b>C:89% T:NA</b>	pCi/L	04/11/18 10:37	13982-63-3	
Radium-228	EPA 9320	<b>-0.0132 ± 0.429 (1.01)</b> <b>C:78% T:78%</b>	pCi/L	04/10/18 16:01	15262-20-1	
Total Radium	Total Radium Calculation	<b>0.607 ± 0.716 (1.33)</b>	pCi/L	04/16/18 15:54	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds

Pace Project No.: 263448

**Sample: FB-4-3-30-18**      **Lab ID: 263448026**      Collected: 03/30/18 11:40      Received: 03/31/18 11:15      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	<b>0.162 ± 0.178 (0.348)</b> <b>C:91% T:NA</b>	pCi/L	04/11/18 10:37	13982-63-3	
Radium-228	EPA 9320	<b>0.268 ± 0.417 (0.901)</b> <b>C:80% T:81%</b>	pCi/L	04/10/18 16:01	15262-20-1	
Total Radium	Total Radium Calculation	<b>0.430 ± 0.595 (1.25)</b>	pCi/L	04/16/18 15:54	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds

Pace Project No.: 263448

**Sample: YGWC-36**      **Lab ID: 263448028**      Collected: 03/30/18 10:55      Received: 03/31/18 11:15      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	<b>0.414 ± 0.246 (0.340)</b> <b>C:92% T:NA</b>	pCi/L	04/11/18 10:37	13982-63-3	
Radium-228	EPA 9320	<b>0.307 ± 0.464 (1.00)</b> <b>C:71% T:78%</b>	pCi/L	04/10/18 16:01	15262-20-1	
Total Radium	Total Radium Calculation	<b>0.721 ± 0.710 (1.34)</b>	pCi/L	04/16/18 15:54	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds

Pace Project No.: 263448

**Sample: YGWC-24S**      **Lab ID: 263448030**      Collected: 03/30/18 12:00      Received: 03/31/18 11:15      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	<b>0.333 ± 0.253 (0.414)</b> <b>C:78% T:NA</b>	pCi/L	04/12/18 09:11	13982-63-3	
Radium-228	EPA 9320	<b>0.0758 ± 0.331 (0.752)</b> <b>C:73% T:88%</b>	pCi/L	04/17/18 13:46	15262-20-1	
Total Radium	Total Radium Calculation	<b>0.409 ± 0.584 (1.17)</b>	pCi/L	04/18/18 14:08	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds

Pace Project No.: 263448

**Sample: EB-3-3-30-18**      **Lab ID: 263448032**      Collected: 03/30/18 11:40      Received: 03/31/18 11:15      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	<b>0.212 ± 0.201 (0.363)</b> C:85% T:NA	pCi/L	04/12/18 09:11	13982-63-3	
Radium-228	EPA 9320	<b>0.504 ± 0.333 (0.632)</b> C:77% T:96%	pCi/L	04/17/18 13:46	15262-20-1	
Total Radium	Total Radium Calculation	<b>0.716 ± 0.534 (0.995)</b>	pCi/L	04/18/18 14:08	7440-14-4	

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds

Pace Project No.: 263448

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QC Batch:	293659	Analysis Method:	EPA 9320
QC Batch Method:	EPA 9320	Analysis Description:	9320 Radium 228
Associated Lab Samples:	263448002, 263448004, 263448006, 263448008, 263448010, 263448012, 263448014, 263448016, 263448018, 263448020, 263448022, 263448024, 263448026, 263448028		

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METHOD BLANK:	1437645	Matrix:	Water
Associated Lab Samples:	263448002, 263448004, 263448006, 263448008, 263448010, 263448012, 263448014, 263448016, 263448018, 263448020, 263448022, 263448024, 263448026, 263448028		

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.474 ± 0.343 (0.651) C:76% T:78%	pCi/L	04/10/18 12:56	

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 Ponds

Pace Project No.: 263448

---

QC Batch:	293681	Analysis Method:	EPA 9315
QC Batch Method:	EPA 9315	Analysis Description:	9315 Total Radium
Associated Lab Samples:	263448002, 263448004, 263448006, 263448008, 263448010, 263448012, 263448014, 263448016, 263448018, 263448020, 263448022, 263448024, 263448026, 263448028		

---

METHOD BLANK:	1437735	Matrix:	Water
Associated Lab Samples:	263448002, 263448004, 263448006, 263448008, 263448010, 263448012, 263448014, 263448016, 263448018, 263448020, 263448022, 263448024, 263448026, 263448028		

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.281 ± 0.226 (0.405) C:96% T:NA	pCi/L	04/11/18 09:10	

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

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds

Pace Project No.: 263448

QC Batch: 293707

Analysis Method: EPA 9320

QC Batch Method: EPA 9320

Analysis Description: 9320 Radium 228

Associated Lab Samples: 263448030, 263448032

METHOD BLANK: 1437861

Matrix: Water

Associated Lab Samples: 263448030, 263448032

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.115 ± 0.285 (0.637) C:79% T:87%	pCi/L	04/17/18 13:46	

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

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds

Pace Project No.: 263448

QC Batch: 293706

Analysis Method: EPA 9315

QC Batch Method: EPA 9315

Analysis Description: 9315 Total Radium

Associated Lab Samples: 263448030, 263448032

METHOD BLANK: 1437860

Matrix: Water

Associated Lab Samples: 263448030, 263448032

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0134 ± 0.160 (0.434) C:81% T:NA	pCi/L	04/12/18 09:11	

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

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## QUALIFIERS

Project: Plant Yates Ash Ponds

Pace Project No.: 263448

---

### DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

Act - Activity

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

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

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

TNI - The NELAC Institute.

### LABORATORIES

PASI-GA Pace Analytical Services - Atlanta, GA

PASI-PA Pace Analytical Services - Greensburg

### ANALYTE QUALIFIERS

D3 Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

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  
Pace Project No.: 263448

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
263448001	YGWA-5D	EPA 3005A	3707	EPA 6020B	3818
263448003	YGWA-5I	EPA 3005A	3707	EPA 6020B	3818
263448005	YGWA-4I	EPA 3005A	3707	EPA 6020B	3818
263448007	EB-2-3-29-18	EPA 3005A	3707	EPA 6020B	3818
263448009	FB-3-3-29-18	EPA 3005A	3707	EPA 6020B	3818
263448011	YGWC-29I	EPA 3005A	3707	EPA 6020B	3818
263448013	Dup-2	EPA 3005A	3707	EPA 6020B	3818
263448015	Dup-3	EPA 3005A	3707	EPA 6020B	3818
263448017	YGWA-20S	EPA 3005A	3707	EPA 6020B	3818
263448019	YGWA-21I	EPA 3005A	3707	EPA 6020B	3818
263448021	YGWC-23S	EPA 3005A	3707	EPA 6020B	3818
263448023	YGWC-33S	EPA 3005A	3707	EPA 6020B	3818
263448025	FB-4-3-30-18	EPA 3005A	3707	EPA 6020B	3818
263448027	YGWC-36	EPA 3005A	3707	EPA 6020B	3818
263448029	YGWC-24S	EPA 3005A	3707	EPA 6020B	3818
263448031	EB-3-3-30-18	EPA 3005A	3707	EPA 6020B	3818
263448001	YGWA-5D	EPA 7470A	3616	EPA 7470A	3888
263448003	YGWA-5I	EPA 7470A	3616	EPA 7470A	3888
263448005	YGWA-4I	EPA 7470A	3616	EPA 7470A	3888
263448007	EB-2-3-29-18	EPA 7470A	3616	EPA 7470A	3888
263448009	FB-3-3-29-18	EPA 7470A	3616	EPA 7470A	3888
263448011	YGWC-29I	EPA 7470A	3616	EPA 7470A	3888
263448013	Dup-2	EPA 7470A	3616	EPA 7470A	3888
263448015	Dup-3	EPA 7470A	3616	EPA 7470A	3888
263448017	YGWA-20S	EPA 7470A	3616	EPA 7470A	3888
263448019	YGWA-21I	EPA 7470A	3616	EPA 7470A	3888
263448021	YGWC-23S	EPA 7470A	3616	EPA 7470A	3888
263448023	YGWC-33S	EPA 7470A	3616	EPA 7470A	3888
263448025	FB-4-3-30-18	EPA 7470A	3616	EPA 7470A	3888
263448027	YGWC-36	EPA 7470A	3616	EPA 7470A	3888
263448029	YGWC-24S	EPA 7470A	3616	EPA 7470A	3888
263448031	EB-3-3-30-18	EPA 7470A	3616	EPA 7470A	3888
263448002	YGWA-5D	EPA 9315	293681		
263448004	YGWA-5I	EPA 9315	293681		
263448006	YGWA-4I	EPA 9315	293681		
263448008	EB-2-3-29-18	EPA 9315	293681		
263448010	FB-3-3-29-18	EPA 9315	293681		
263448012	YGWC-29I	EPA 9315	293681		
263448014	Dup-2	EPA 9315	293681		
263448016	Dup-3	EPA 9315	293681		
263448018	YGWA-20S	EPA 9315	293681		
263448020	YGWA-21I	EPA 9315	293681		
263448022	YGWC-23S	EPA 9315	293681		
263448024	YGWC-33S	EPA 9315	293681		
263448026	FB-4-3-30-18	EPA 9315	293681		
263448028	YGWC-36	EPA 9315	293681		
263448030	YGWC-24S	EPA 9315	293706		

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Yates Ash Ponds  
Pace Project No.: 263448

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
263448032	EB-3-3-30-18	EPA 9315	293706		
263448002	YGWA-5D	EPA 9320	293659		
263448004	YGWA-5I	EPA 9320	293659		
263448006	YGWA-4I	EPA 9320	293659		
263448008	EB-2-3-29-18	EPA 9320	293659		
263448010	FB-3-3-29-18	EPA 9320	293659		
263448012	YGWC-29I	EPA 9320	293659		
263448014	Dup-2	EPA 9320	293659		
263448016	Dup-3	EPA 9320	293659		
263448018	YGWA-20S	EPA 9320	293659		
263448020	YGWA-21I	EPA 9320	293659		
263448022	YGWC-23S	EPA 9320	293659		
263448024	YGWC-33S	EPA 9320	293659		
263448026	FB-4-3-30-18	EPA 9320	293659		
263448028	YGWC-36	EPA 9320	293659		
263448030	YGWC-24S	EPA 9320	293707		
263448032	EB-3-3-30-18	EPA 9320	293707		
263448002	YGWA-5D	Total Radium Calculation	294835		
263448004	YGWA-5I	Total Radium Calculation	294835		
263448006	YGWA-4I	Total Radium Calculation	294835		
263448008	EB-2-3-29-18	Total Radium Calculation	294835		
263448010	FB-3-3-29-18	Total Radium Calculation	294835		
263448012	YGWC-29I	Total Radium Calculation	294835		
263448014	Dup-2	Total Radium Calculation	294835		
263448016	Dup-3	Total Radium Calculation	294835		
263448018	YGWA-20S	Total Radium Calculation	294835		
263448020	YGWA-21I	Total Radium Calculation	294835		
263448022	YGWC-23S	Total Radium Calculation	294835		
263448024	YGWC-33S	Total Radium Calculation	294835		
263448026	FB-4-3-30-18	Total Radium Calculation	294835		
263448028	YGWC-36	Total Radium Calculation	294835		
263448030	YGWC-24S	Total Radium Calculation	295143		
263448032	EB-3-3-30-18	Total Radium Calculation	295143		
263448001	YGWA-5D	EPA 300.0	3754		
263448003	YGWA-5I	EPA 300.0	3754		
263448005	YGWA-4I	EPA 300.0	3754		
263448007	EB-2-3-29-18	EPA 300.0	3754		
263448009	FB-3-3-29-18	EPA 300.0	3754		
263448011	YGWC-29I	EPA 300.0	3754		
263448013	Dup-2	EPA 300.0	3754		
263448015	Dup-3	EPA 300.0	3754		
263448017	YGWA-20S	EPA 300.0	3754		
263448019	YGWA-21I	EPA 300.0	3754		
263448021	YGWC-23S	EPA 300.0	3754		
263448023	YGWC-33S	EPA 300.0	3754		
263448025	FB-4-3-30-18	EPA 300.0	3754		

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Yates Ash Ponds

Pace Project No.: 263448

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
263448027	YGWC-36	EPA 300.0	3754		
263448029	YGWC-24S	EPA 300.0	3754		
263448031	EB-3-3-30-18	EPA 300.0	3754		

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

**CHAIN OF CUSTODY RECORD**

PAGE: \_\_\_\_\_ OF \_\_\_\_\_

<b>CLIENT NAME:</b> Georgia Power <b>CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER:</b> 241 Ralph McGill Blvd SE B10185 Atlanta, GA 30308 404-506-7239		<b>REPORT TO:</b> Joju Abraham <b>CC:</b> Maria Padilla Heath McCorkle <b>PO #:</b> laburch@southernco.com <b>PROJECT NAME/STATE:</b> Plant Yates - Ash Pond 3 <b>PROJECT #:</b> Phase 2 CCR	
<b>CONTAINER TYPE:</b> PRESERVATION # of	<b>ANALYSIS REQUESTED</b> P P P 3 7 3 Metals App IV (EPA 6020/7470) Flouride Radium 226 & 228 (SW-846 9315/9320)	<b>CONTAINER TYPE</b> P - PLASTIC A - AMBER GLASS G - CLEAR GLASS V - VOA VIAL S - STERILE O - OTHER	<b>PRESERVATION</b> 1 - HCl, ≤6°C 2 - H <sub>2</sub> SO <sub>4</sub> , ≤6°C 3 - HNO <sub>3</sub> 4 - NaOH, ≤6°C 5 - NaOH/ZnAc, ≤6°C 6 - Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> , ≤6°C 7 - ≤6°C not frozen
<b>CONTAINERS</b> →		<b>*MATRIX CODES:</b> DW - DRINKING WATER S - SOIL MW - WASTEWATER SL - SLUDGE GW - GROUNDWATER SD - SOLID SW - SURFACE WATER A - AIR ST - STORM WATER L - LIQUID W - WATER P - PRODUCT	
<b>COLLECTION DATE</b> 3-24-18 3-24-18 3-29-18 3-24-18 3-29-18 3-29-18 3-29-18 3-29-18 3-24-18 3-24-18 3-30-18	<b>COLLECTION TIME</b> 0950 1145 1340 1320 1510 1530 — — 1356 1150 0901	<b>MATRIX CODE*</b> G W G W	<b>SAMPLE IDENTIFICATION</b> X Y6WA-5D X Y6WA-5I X Y6WA-4I X FB-2-3-24-18 X FB-3-3-24-18 X Y6WC-29I X Dup-2 X Dup-3 X Y6WA-20S X Y6WA-21I X Y6WC-25S
<b>SAMPLED BY AND TITLE:</b> K. Walker, Sr. Bears Forel <b>RECEIVED BY:</b>	<b>DATE/TIME:</b> 3-30-18 1700 <b>DATE/TIME:</b>	<b>RELINQUISHED BY:</b> [Signature] <b>RELINQUISHED BY:</b>	<b>DATE/TIME:</b> 3-31-18 115 <b>DATE/TIME:</b>
<b>RECEIVED BY LAB:</b> [Signature] <b>Checked:</b> Yes No NA <b>Temp:</b> Min: 0.4°C Max:	<b>SAMPLE SHIPPED VIA:</b> UPS FED-EX USPS <b>Cooler ID:</b> CLIENT OTHER <b># of Coolers:</b> Not Present	<b>LAB #:</b> <b>Entered into LIMS:</b> <b>Tracking #:</b>	<b>FOR LAB USE ONLY</b>

**WO# : 263448**  
  
 263448

Yates Ash Pond 3 - Blank COCs.xlsx



WO#: 263448

Due Date: 04/09/18

PM: BM

CLIENT: GAPower-CCR



Client Name: Georgia Power

Courier:  Fed Ex  UPS  USPS  Client  Commercial  Pace  Other

Tracking #: \_\_\_\_\_

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

Proj. Due Date: \_\_\_\_\_  
Proj. Name: \_\_\_\_\_

Packing Material:  Bubble Wrap  Bubble Bags  None  Other

Thermometer Used: THROB2  
Cooler Temperature: 0.4°C

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

Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: 3/31/18/JS

Temp should be above freezing to 6°C

Comments:

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input checked="" 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
Samples checked for dechlorination:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	Lot # of added preservative
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	16.
Pace Trip Blank Lot # (if purchased):	_____	

Client Notification/ Resolution:

Field Data Required? Y / N

Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Comments/ Resolution: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Project Manager Review: \_\_\_\_\_

Date: \_\_\_\_\_

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

Product Name: Low-Flow System

Date: 2018-03-27 15:37:45

Project Information:

Operator Name Ryan Walker  
Company Name Atlantic Coast Consulting  
Project Name Plant Yates  
Site Name Ash Pond 2  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 541714  
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED Bladder  
Tubing Type Teflon  
Tubing Diameter .375 in  
Tubing Length 59 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 37.91 ft

Pumping Information:

Final Pumping Rate 60 mL/min  
Total System Volume 1.6714 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 19.08 in  
Total Volume Pumped 6.2 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 3%	+/- 10		+/- 0.3	+/- 10
Last 5	15:15:26	5116.97	16.08	6.28	61.15	0.87	39.50	2.57	47.52
Last 5	15:20:26	5416.97	16.04	6.27	60.64	1.20	39.50	2.71	49.00
Last 5	15:25:26	5716.96	15.94	6.26	60.28	1.39	39.50	2.85	49.81
Last 5	15:30:26	6016.96	16.00	6.26	60.33	1.25	39.50	2.95	50.13
Last 5	15:35:26	6316.96	16.26	6.25	60.31	1.32	39.50	3.05	50.82
Variance 0			-0.10	-0.01	-0.36			0.14	0.81
Variance 1			0.05	-0.00	0.05			0.10	0.32
Variance 2			0.27	-0.01	-0.02			0.10	0.68

Notes

Sampled at 15:35. Cloudy, 50's.

Grab Samples

Product Name: Low-Flow System

Date: 2018-03-29 09:47:18

Project Information:

Operator Name Ryan Walker  
Company Name Atlantic Coast Consulting  
Project Name Plant Yates  
Site Name Ash Pond 2  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 541714  
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED Bladder  
Tubing Type Teflon  
Tubing Diameter .375 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 50.51 ft

Pumping Information:

Final Pumping Rate 100 mL/min  
Total System Volume 2.735614 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 1.08 in  
Total Volume Pumped 4 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 3%	+/- 10		+/- 0.3	+/- 10
Last 5	09:26:27	1201.02	15.88	7.41	167.68	7.89	50.60	0.43	-92.22
Last 5	09:31:27	1501.02	16.04	7.41	168.60	5.28	50.60	0.34	-93.79
Last 5	09:36:27	1801.01	16.18	7.40	168.53	3.67	50.60	0.30	-91.81
Last 5	09:41:27	2101.01	16.36	7.39	168.09	2.99	50.60	0.27	-93.00
Last 5	09:46:30	2404.01	16.45	7.38	167.24	2.59	50.60	0.25	-93.82
Variance 0			0.14	-0.01	-0.07			-0.04	1.98
Variance 1			0.18	-0.01	-0.44			-0.03	-1.19
Variance 2			0.09	-0.02	-0.85			-0.02	-0.82

Notes

Sampled at 09:46. Sunny, 60's.

Grab Samples

Product Name: Low-Flow System

Date: 2018-03-28 10:38:15

Project Information:

Operator Name Ryan Walker  
Company Name Atlantic Coast Consulting  
Project Name Plant Yates  
Site Name Ash Pond 2  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 541714  
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED Bladder  
Tubing Type Teflon  
Tubing Diameter .375 in  
Tubing Length 70 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 45.28 ft

Pumping Information:

Final Pumping Rate 60 mL/min  
Total System Volume 1.910305 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 71.04 in  
Total Volume Pumped 4.9 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 3%	+/- 10		+/- 0.3	+/- 10
Last 5	10:17:22	3600.99	15.85	7.34	221.50	0.47	50.70	0.42	-41.10
Last 5	10:22:22	3900.99	15.90	7.33	220.89	0.63	50.90	0.42	-40.05
Last 5	10:27:22	4200.98	16.01	7.32	220.56	0.49	51.00	0.42	-38.87
Last 5	10:32:22	4500.98	16.28	7.31	220.11	0.51	51.10	0.40	-37.32
Last 5	10:37:22	4800.98	16.40	7.30	219.56	0.46	51.20	0.40	-38.23
Variance 0			0.11	-0.01	-0.32			-0.00	1.18
Variance 1			0.27	-0.01	-0.45			-0.01	1.56
Variance 2			0.12	-0.01	-0.55			-0.01	-0.91

Notes

Sampled at 10:37. Sunny, 60's.

Grab Samples

Product Name: Low-Flow System

Date: 2018-03-28 17:22:50

Project Information:

Operator Name Ryan Walker  
Company Name Atlantic Coast Consulting  
Project Name Plant Yates  
Site Name Ash Pond 2  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 541714  
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED Bladder  
Tubing Type Teflon  
Tubing Diameter .375 in  
Tubing Length 65 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 51.60 ft

Pumping Information:

Final Pumping Rate 160 mL/min  
Total System Volume 1.801712 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 15.6 in  
Total Volume Pumped 15.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 3%	+/- 10		+/- 0.3	+/- 10
Last 5	17:01:06	5706.97	17.79	7.75	198.34	0.34	52.90	0.67	-110.15
Last 5	17:06:06	6006.96	17.87	7.74	197.79	0.52	52.90	0.66	-110.02
Last 5	17:11:06	6306.96	17.85	7.74	197.49	0.41	52.90	0.61	-109.93
Last 5	17:16:06	6606.96	17.74	7.74	197.38	0.58	52.90	0.58	-110.09
Last 5	17:21:06	6906.95	17.70	7.74	196.33	0.32	52.90	0.53	-110.09
Variance 0			-0.02	-0.00	-0.30			-0.05	0.09
Variance 1			-0.11	-0.00	-0.11			-0.03	-0.16
Variance 2			-0.04	0.00	-1.05			-0.05	0.00

Notes

Sampled at 17:20. Sunny, 70's. FB-2 here.

Grab Samples

Product Name: Low-Flow System

Date: 2018-03-28 12:52:48

Project Information:

Operator Name Ryan Walker  
Company Name Atlantic Coast Consulting  
Project Name Plant Yates  
Site Name Ash Pond 2  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 541714  
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED Bladder  
Tubing Type Teflon  
Tubing Diameter .375 in  
Tubing Length 152 ft

Pump placement from TOC 142 ft

Well Information:

Well ID YGWA-3D  
Well diameter 2 in  
Well Total Depth 137.10 ft  
Screen Length 50 ft  
Depth to Water 31.92 ft

Pumping Information:

Final Pumping Rate 100 mL/min  
Total System Volume 3.691234 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 0.96 in  
Total Volume Pumped 7 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 3%	+/- 10		+/- 0.3	+/- 10
Last 5	12:30:31	300.09	18.68	7.89	230.54	0.88	32.00	0.67	-108.61
Last 5	12:35:31	600.03	18.77	7.90	231.01	2.00	32.00	0.70	-111.03
Last 5	12:40:31	900.02	18.88	7.90	231.00	0.96	32.00	0.68	-115.23
Last 5	12:45:31	1200.02	19.06	7.91	230.79	0.34	32.00	0.68	-114.44
Last 5	12:50:31	1500.02	19.12	7.91	231.13	0.23	32.00	0.67	-115.93
Variance 0			0.12	0.00	-0.02			-0.02	-4.20
Variance 1			0.17	0.00	-0.21			0.00	0.79
Variance 2			0.07	0.00	0.34			-0.01	-1.49

Notes

Sampled at 12:50. Sunny, 70's.

Grab Samples

Product Name: Low-Flow System

Date: 2018-03-27 13:41:44

Project Information:

Operator Name J Berisford  
Company Name Atlantic Coast Consulting  
Project Name Ash Ponds  
Site Name Plant Yates  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 440275  
Turbidity Make/Model HACH 2100Q

Pump Information:

Pump Model/Type QED Bladder  
Tubing Type poly  
Tubing Diameter .375 in  
Tubing Length 49 ft

Pump placement from TOC 44 ft

Well Information:

Well ID YGWA-4I  
Well diameter 2 in  
Well Total Depth 49.70 ft  
Screen Length 10 ft  
Depth to Water 17.02 ft

Pumping Information:

Final Pumping Rate 200 mL/min  
Total System Volume 1.549214 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 200 in  
Total Volume Pumped 6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 0
Last 5	13:20:04	600.02	15.76	5.46	61.74	1.11	17.30	6.98	86.98
Last 5	13:25:04	900.02	15.93	5.47	61.14	0.89	17.30	6.84	84.56
Last 5	13:30:04	1200.02	15.94	5.48	60.40	0.77	17.30	6.76	82.82
Last 5	13:35:04	1500.50	15.98	5.45	60.71	0.93	17.30	6.72	83.93
Last 5	13:40:04	1800.51	16.16	5.47	59.93	0.77	17.30	6.68	83.78
Variance 0			0.01	0.01	-0.74			-0.08	-1.74
Variance 1			0.04	-0.03	0.30			-0.04	1.11
Variance 2			0.18	0.02	-0.78			-0.04	-0.15

Notes

Cloudy, sample time-1340

Grab Samples

Product Name: Low-Flow System

Date: 2018-03-27 14:41:51

Project Information:

Operator Name J Berisford  
Company Name Atlantic Coast Consulting  
Project Name Ash Ponds  
Site Name Plant Yates  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 440275  
Turbidity Make/Model HACH 2100Q

Pump Information:

Pump Model/Type QED Bladder  
Tubing Type poly  
Tubing Diameter .375 in  
Tubing Length 59 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 36.45 ft

Pumping Information:

Final Pumping Rate 170 mL/min  
Total System Volume 1.7664 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 4.2 in  
Total Volume Pumped 5.1 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 0
Last 5	14:20:03	600.02	16.18	6.05	38.89	2.05	36.80	7.03	87.67
Last 5	14:25:03	900.02	16.83	5.90	39.31	2.12	36.80	6.84	85.28
Last 5	14:30:03	1200.02	16.92	5.84	39.40	1.88	36.80	6.81	85.00
Last 5	14:35:03	1500.02	16.89	5.75	40.50	2.32	36.80	6.84	84.84
Last 5	14:40:03	1800.02	17.10	5.83	39.43	2.22	36.80	6.77	83.88
Variance 0			0.09	-0.06	0.08			-0.03	-0.28
Variance 1			-0.02	-0.10	1.10			0.03	-0.16
Variance 2			0.20	0.08	-1.07			-0.07	-0.96

Notes

Cloudy: sample time :1440

Grab Samples

Product Name: Low-Flow System

Date: 2018-03-30 13:18:56

Project Information:

Operator Name Ryan Walker  
Company Name Atlantic Coast Consulting  
Project Name Plant Yates  
Site Name Ash Pond 2  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 541714  
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED Bladder  
Tubing Type Teflon  
Tubing Diameter .375 in  
Tubing Length 45 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 18.88 ft

Pumping Information:

Final Pumping Rate 100 mL/min  
Total System Volume 1.367339 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 14.62 in  
Total Volume Pumped 9.12 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 3%	+/- 10		+/- 0.3	+/- 10
Last 5	12:57:42	3000.00	19.12	5.18	287.73	5.67	20.10	1.65	97.93
Last 5	13:02:42	3300.00	19.17	5.18	288.76	5.34	20.10	1.65	97.27
Last 5	13:07:42	3599.99	19.08	5.18	288.69	5.20	20.10	1.65	96.36
Last 5	13:12:43	3900.99	18.94	5.18	289.42	5.18	20.10	1.65	95.58
Last 5	13:17:43	4200.99	18.87	5.19	289.96	4.50	20.10	1.62	94.83
Variance 0			-0.09	0.00	-0.08			0.01	-0.90
Variance 1			-0.14	-0.00	0.73			-0.00	-0.78
Variance 2			-0.07	0.01	0.54			-0.03	-0.75

Notes

Sampled at 13:17. Sunny, 60's.

Grab Samples

Product Name: Low-Flow System

Date: 2018-03-30 13:49:00

Project Information:

Operator Name J Berisford  
Company Name Atlantic Coast Consulting  
Project Name Ash Ponds  
Site Name Plant Yates  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 440275  
Turbidity Make/Model HACH 2100Q

Pump Information:

Pump Model/Type QED Bladder  
Tubing Type poly  
Tubing Diameter .375 in  
Tubing Length 69 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 22.34 ft

Pumping Information:

Final Pumping Rate 150 mL/min  
Total System Volume 1.983587 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 3.12 in  
Total Volume Pumped 4.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 0
Last 5	13:25:33	600.84	19.55	6.42	314.15	8.62	22.60	0.40	11.10
Last 5	13:30:33	900.84	19.62	6.30	314.81	7.25	22.60	0.25	13.60
Last 5	13:35:33	1200.84	19.31	6.24	316.11	6.54	22.60	0.17	17.05
Last 5	13:40:33	1500.84	19.63	6.22	317.16	5.50	22.60	0.15	19.45
Last 5	13:45:33	1800.84	19.75	6.19	316.70	4.34	22.60	0.14	22.25
Variance 0			-0.30	-0.05	1.30			-0.08	3.45
Variance 1			0.31	-0.02	1.06			-0.02	2.40
Variance 2			0.13	-0.03	-0.46			-0.01	2.80

Notes

Sunny, sample time -1345

Grab Samples

Product Name: Low-Flow System

Date: 2018-03-29 15:54:59

Project Information:

Operator Name Ryan Walker  
Company Name Atlantic Coast Consulting  
Project Name Plant Yates  
Site Name Ash Pond 2  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 541714  
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED Bladder  
Tubing Type Teflon  
Tubing Diameter .375 in  
Tubing Length 49 ft

Pump placement from TOC 39 ft

Well Information:

Well ID YGWC-27S  
Well diameter 2 in  
Well Total Depth 44.85 ft  
Screen Length 10 ft  
Depth to Water 26.04 ft

Pumping Information:

Final Pumping Rate 180 mL/min  
Total System Volume 1.454214 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 0.72 in  
Total Volume Pumped 11 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 3%	+/- 10		+/- 0.3	+/- 10
Last 5	15:33:27	2102.01	19.70	6.25	412.77	5.36	26.10	1.62	60.74
Last 5	15:38:27	2402.01	19.82	6.25	412.02	3.68	26.10	1.45	60.08
Last 5	15:43:28	2703.01	19.67	6.25	411.70	4.28	26.10	1.37	59.19
Last 5	15:48:28	3003.00	19.65	6.25	412.13	3.23	26.10	1.30	58.37
Last 5	15:53:28	3303.00	19.74	6.25	412.32	3.03	26.10	1.19	57.78
Variance 0			-0.15	0.00	-0.32			-0.08	-0.89
Variance 1			-0.02	-0.00	0.43			-0.07	-0.82
Variance 2			0.09	0.00	0.19			-0.11	-0.59

Notes

Sampled at 15:53. Cloudy, 70's.

Grab Samples

Product Name: Low-Flow System

Date: 2018-03-29 16:59:08

Project Information:

Operator Name Ryan Walker  
Company Name Atlantic Coast Consulting  
Project Name Plant Yates  
Site Name Ash Pond 2  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 541714  
Turbidity Make/Model Hach 2100Q

Pump Information:

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

Pump placement from TOC 74 ft

Well Information:

Well ID YGWC-27I  
Well diameter 2 in  
Well Total Depth 79.84 ft  
Screen Length 10 ft  
Depth to Water 26.60 ft

Pumping Information:

Final Pumping Rate 150 mL/min  
Total System Volume 2.214366 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 6 in  
Total Volume Pumped 3.85 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 3%	+/- 10		+/- 0.3	+/- 10
Last 5	16:38:21	600.03	19.43	6.38	340.06	4.50	27.00	0.46	-14.25
Last 5	16:43:21	900.03	19.37	6.38	341.33	2.00	27.10	0.35	-10.72
Last 5	16:48:21	1200.02	19.30	6.37	341.68	2.26	27.10	0.28	-9.43
Last 5	16:53:21	1500.02	19.22	6.37	342.30	1.72	27.10	0.23	-9.06
Last 5	16:58:22	1801.01	19.46	6.36	342.23	1.49	27.10	0.21	-8.62
Variance 0			-0.07	-0.00	0.35			-0.07	1.28
Variance 1			-0.08	-0.00	0.62			-0.05	0.38
Variance 2			0.24	-0.01	-0.08			-0.02	0.43

Notes

Sampled at 16:58. Cloudy, 70's.

Grab Samples

Product Name: Low-Flow System

Date: 2018-03-30 12:50:57

Project Information:

Operator Name J Berisford  
Company Name Atlantic Coast Consulting  
Project Name Ash Ponds  
Site Name Plant Yates  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 440275  
Turbidity Make/Model HACH 2100Q

Pump Information:

Pump Model/Type QED Bladder  
Tubing Type poly  
Tubing Diameter .375 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 21.50 ft

Pumping Information:

Final Pumping Rate 210 mL/min  
Total System Volume 1.44062 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 3.6 in  
Total Volume Pumped 37.8 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 0
Last 5	12:30:01	9599.79	18.66	6.33	455.11	11.00	21.80	0.29	-58.81
Last 5	12:35:01	9899.79	18.70	6.34	455.26	10.00	21.80	0.26	-57.32
Last 5	12:40:01	10199.79	18.84	6.34	454.45	9.51	21.80	0.18	-56.73
Last 5	12:45:01	10499.79	18.75	6.34	454.47	9.78	21.80	0.00	-56.55
Last 5	12:50:01	10799.79	18.96	6.35	453.22	9.68	21.80	0.07	-56.85
Variance 0			0.13	0.00	-0.81			-0.08	0.59
Variance 1			-0.09	0.00	0.02			-0.18	0.18
Variance 2			0.22	0.01	-1.25			0.07	-0.29

Notes

Sunny, sample time -1250

Grab Samples

Product Name: Low-Flow System

Date: 2018-03-30 09:11:53

Project Information:

Operator Name J Berisford  
Company Name Atlantic Coast Consulting  
Project Name Ash Ponds  
Site Name Plant Yates  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 440275  
Turbidity Make/Model HACH 2100Q

Pump Information:

Pump Model/Type QED Bladder  
Tubing Type poly  
Tubing Diameter .375 in  
Tubing Length 69 ft

Pump placement from TOC 64 ft

Well Information:

Well ID YGWC-28I  
Well diameter 2 in  
Well Total Depth 69.89 ft  
Screen Length 10 ft  
Depth to Water 21.97 ft

Pumping Information:

Final Pumping Rate 120 mL/min  
Total System Volume 1.983587 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 18.4 in  
Total Volume Pumped 6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 0
Last 5	08:50:01	1800.02	17.28	6.34	406.75	0.71	23.50	0.75	108.85
Last 5	08:55:01	2100.02	17.31	6.35	407.21	0.94	23.50	0.76	108.89
Last 5	09:00:01	2400.02	17.05	6.38	409.60	1.06	23.50	1.11	108.64
Last 5	09:05:02	2701.28	17.16	6.39	411.21	1.02	23.50	0.92	108.53
Last 5	09:10:03	3002.28	17.01	6.39	412.71	1.09	23.50	0.96	108.93
Variance 0			-0.25	0.02	2.40			0.35	-0.26
Variance 1			0.11	0.01	1.60			-0.19	-0.11
Variance 2			-0.15	0.00	1.51			0.04	0.40

Notes

Sunny, sample time: 0910, 2nd rad here

Grab Samples

Product Name: Low-Flow System

Date: 2018-03-29 15:32:16

Project Information:

Operator Name J Berisford  
Company Name Atlantic Coast Consulting  
Project Name Ash Ponds  
Site Name Plant Yates  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 440275  
Turbidity Make/Model HACH 2100Q

Pump Information:

Pump Model/Type QED Bladder  
Tubing Type poly  
Tubing Diameter .375 in  
Tubing Length 39 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 25.38 ft

Pumping Information:

Final Pumping Rate 110 mL/min  
Total System Volume 1.332027 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 14.6 in  
Total Volume Pumped 4.4 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 0
Last 5	15:10:51	1200.02	20.56	6.15	263.31	0.95	26.50	1.21	85.32
Last 5	15:15:51	1500.02	20.75	6.13	263.28	0.44	26.60	0.91	85.67
Last 5	15:20:52	1800.51	20.60	6.11	263.27	0.59	26.60	0.68	86.24
Last 5	15:25:52	2100.51	20.93	6.09	263.93	0.51	26.60	0.55	87.25
Last 5	15:30:52	2400.51	20.66	6.09	263.67	0.72	26.60	0.46	86.94
Variance 0			-0.15	-0.02	-0.00			-0.23	0.56
Variance 1			0.33	-0.02	0.66			-0.13	1.01
Variance 2			-0.27	-0.00	-0.26			-0.09	-0.30

Notes

Sunny, sample time - 1530

Grab Samples

July 17, 2018

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

RE: Project: Plant Yates Ash Ponds  
Pace Project No.: 265916

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on June 08, 2018. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

REV07172018\_report revised to remove mercury data per consultant request.

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

Sincerely,



Betsy McDaniel  
betsy.mcdaniel@pacelabs.com  
(770)734-4200  
Project Manager

Enclosures

cc: Maria Padilla, Georgia Power  
Chris Parker, Atlantic Coast Consulting  
Evan Perry, Atlantic Coast Consulting  
Lauren Petty, Southern Company Services, Inc.  
Rebecca Thornton, Pace Analytical Atlanta



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: Plant Yates Ash Ponds

Pace Project No.: 265916

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### Atlanta Certification IDs

110 Technology Parkway Peachtree Corners, GA 30092

Florida DOH Certification #: E87315

Georgia DW Inorganics Certification #: 812

Georgia DW Microbiology Certification #: 812

North Carolina Certification #: 381

South Carolina Certification #: 98011001

Texas Certification #: T104704397-08-TX

Virginia Certification #: 460204

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### Pennsylvania Certification IDs

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

ANAB DOD-ELAP Rad Accreditation #: L2417

Alabama Certification #: 41590

Arizona Certification #: AZ0734

Arkansas Certification

California Certification #: 04222CA

Colorado Certification #: PA01547

Connecticut Certification #: PH-0694

Delaware Certification

EPA Region 4 DW Rad

Florida/TNI Certification #: E87683

Georgia Certification #: C040

Guam Certification

Hawaii Certification

Idaho Certification

Illinois Certification

Indiana Certification

Iowa Certification #: 391

Kansas/TNI Certification #: E-10358

Kentucky Certification #: KY90133

KY WW Permit #: KY0098221

KY WW Permit #: KY0000221

Louisiana DHH/TNI Certification #: LA180012

Louisiana DEQ/TNI Certification #: 4086

Maine Certification #: 2017020

Maryland Certification #: 308

Massachusetts Certification #: M-PA1457

Michigan/PADEP Certification #: 9991

Missouri Certification #: 235

Montana Certification #: Cert0082

Nebraska Certification #: NE-OS-29-14

Nevada Certification #: PA014572018-1

New Hampshire/TNI Certification #: 297617

New Jersey/TNI Certification #: PA051

New Mexico Certification #: PA01457

New York/TNI Certification #: 10888

North Carolina Certification #: 42706

North Dakota Certification #: R-190

Ohio EPA Rad Approval: #41249

Oregon/TNI Certification #: PA200002-010

Pennsylvania/TNI Certification #: 65-00282

Puerto Rico Certification #: PA01457

Rhode Island Certification #: 65-00282

South Dakota Certification

Tennessee Certification #: 02867

Texas/TNI Certification #: T104704188-17-3

Utah/TNI Certification #: PA014572017-9

USDA Soil Permit #: P330-17-00091

Vermont Dept. of Health: ID# VT-0282

Virgin Island/PADEP Certification

Virginia/VELAP Certification #: 9526

Washington Certification #: C868

West Virginia DEP Certification #: 143

West Virginia DHHR Certification #: 9964C

Wisconsin Approve List for Rad

Wyoming Certification #: 8TMS-L

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## REPORT OF LABORATORY ANALYSIS

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### SAMPLE SUMMARY

Project: Plant Yates Ash Ponds  
Pace Project No.: 265916

Lab ID	Sample ID	Matrix	Date Collected	Date Received
265916001	YGWA-1D	Water	06/05/18 14:20	06/08/18 15:55
265916002	YGWA-1I	Water	06/06/18 11:30	06/08/18 15:55
265916003	YGWA-2I	Water	06/07/18 13:05	06/08/18 15:55
265916004	FB-1-6-7-18	Water	06/07/18 12:30	06/08/18 15:55
265916005	YGWA-3D	Water	06/07/18 14:35	06/08/18 15:55
265916006	YGWA-3I	Water	06/08/18 10:05	06/08/18 15:55
265916007	Dup-1	Water	06/08/18 00:00	06/08/18 15:55
265916008	YGWA-14S	Water	06/08/18 11:25	06/08/18 15:55

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### SAMPLE ANALYTE COUNT

Project: Plant Yates Ash Ponds

Pace Project No.: 265916

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
265916001	YGWA-1D	EPA 6020B	CSW	7	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		SM 2540C	JPT	1	PASI-GA
		EPA 300.0	MWB	3	PASI-GA
265916002	YGWA-1I	EPA 6020B	CSW	7	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		SM 2540C	JPT	1	PASI-GA
		EPA 300.0	MWB	3	PASI-GA
265916003	YGWA-2I	EPA 6020B	CSW	7	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		SM 2540C	JPT	1	PASI-GA
		EPA 300.0	RLC	3	PASI-GA
265916004	FB-1-6-7-18	EPA 6020B	CSW	7	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		SM 2540C	JPT	1	PASI-GA
		EPA 300.0	RLC	3	PASI-GA
265916005	YGWA-3D	EPA 6020B	CSW	7	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		SM 2540C	JPT	1	PASI-GA
		EPA 300.0	RLC	3	PASI-GA
265916006	YGWA-3I	EPA 6020B	CSW	7	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		SM 2540C	JPT	1	PASI-GA
		EPA 300.0	RLC	3	PASI-GA
265916007	Dup-1	EPA 6020B	CSW	7	PASI-GA

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**SAMPLE ANALYTE COUNT**

Project: Plant Yates Ash Ponds

Pace Project No.: 265916

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
265916008	YGWA-14S	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		SM 2540C	JPT	1	PASI-GA
		EPA 300.0	RLC	3	PASI-GA
		EPA 6020B	CSW	7	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		SM 2540C	JPT	1	PASI-GA
		EPA 300.0	RLC	3	PASI-GA

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### ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds

Pace Project No.: 265916

Sample: YGWA-1D		Lab ID: 265916001		Collected: 06/05/18 14:20		Received: 06/08/18 15:55		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6020B MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Arsenic	<b>0.0013J</b>	mg/L	0.0050	0.00057	1	06/20/18 11:50	06/22/18 19:31	7440-38-2	
Barium	<b>0.0069J</b>	mg/L	0.010	0.00078	1	06/20/18 11:50	06/22/18 19:31	7440-39-3	
Boron	<b>0.0052J</b>	mg/L	0.040	0.0039	1	06/20/18 11:50	06/22/18 19:31	7440-42-8	
Calcium	<b>15.2J</b>	mg/L	25.0	0.69	50	06/20/18 11:50	06/22/18 19:36	7440-70-2	D3
Cobalt	ND	mg/L	0.010	0.00052	1	06/20/18 11:50	06/22/18 19:31	7440-48-4	
Lithium	<b>0.0079J</b>	mg/L	0.050	0.00097	1	06/20/18 11:50	06/22/18 19:31	7439-93-2	
Molybdenum	<b>0.0092J</b>	mg/L	0.010	0.0019	1	06/20/18 11:50	06/22/18 19:31	7439-98-7	
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C							
Total Dissolved Solids	<b>127</b>	mg/L	25.0	10.0	1		06/11/18 18:50		
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0							
Chloride	<b>1.1</b>	mg/L	0.25	0.024	1		06/15/18 02:17	16887-00-6	
Fluoride	<b>0.055J</b>	mg/L	0.30	0.029	1		06/15/18 02:17	16984-48-8	
Sulfate	<b>6.4</b>	mg/L	1.0	0.017	1		06/15/18 02:17	14808-79-8	

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## ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds

Pace Project No.: 265916

Sample: YGWA-1I		Lab ID: 265916002		Collected: 06/06/18 11:30		Received: 06/08/18 15:55		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
<b>6020B MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Arsenic	ND	mg/L	0.0050	0.00057	1	06/20/18 11:50	06/22/18 19:54	7440-38-2		
Barium	<b>0.0082J</b>	mg/L	0.010	0.00078	1	06/20/18 11:50	06/22/18 19:54	7440-39-3		
Boron	ND	mg/L	0.040	0.0039	1	06/20/18 11:50	06/22/18 19:54	7440-42-8		
Calcium	<b>2.3</b>	mg/L	0.50	0.014	1	06/20/18 11:50	06/22/18 19:54	7440-70-2		
Cobalt	ND	mg/L	0.010	0.00052	1	06/20/18 11:50	06/22/18 19:54	7440-48-4		
Lithium	<b>0.0024J</b>	mg/L	0.050	0.00097	1	06/20/18 11:50	06/22/18 19:54	7439-93-2		
Molybdenum	<b>0.0073J</b>	mg/L	0.010	0.0019	1	06/20/18 11:50	06/22/18 19:54	7439-98-7		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C								
Total Dissolved Solids	<b>96.0</b>	mg/L	25.0	10.0	1		06/11/18 18:51			
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0								
Chloride	<b>1.4</b>	mg/L	0.25	0.024	1		06/15/18 04:08	16887-00-6		
Fluoride	ND	mg/L	0.30	0.029	1		06/15/18 04:08	16984-48-8		
Sulfate	<b>4.4</b>	mg/L	1.0	0.017	1		06/15/18 04:08	14808-79-8		

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### ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds  
Pace Project No.: 265916

Sample: YGWA-2I		Lab ID: 265916003		Collected: 06/07/18 13:05		Received: 06/08/18 15:55		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6020B MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Arsenic	<b>0.00082J</b>	mg/L	0.0050	0.00057	1	06/20/18 11:50	06/22/18 20:05	7440-38-2	
Barium	<b>0.0037J</b>	mg/L	0.010	0.00078	1	06/20/18 11:50	06/22/18 20:05	7440-39-3	
Boron	ND	mg/L	0.040	0.0039	1	06/20/18 11:50	06/22/18 20:05	7440-42-8	
Calcium	<b>25.0</b>	mg/L	25.0	0.69	50	06/20/18 11:50	06/22/18 20:11	7440-70-2	
Cobalt	ND	mg/L	0.010	0.00052	1	06/20/18 11:50	06/22/18 20:05	7440-48-4	
Lithium	<b>0.0017J</b>	mg/L	0.050	0.00097	1	06/20/18 11:50	06/22/18 20:05	7439-93-2	
Molybdenum	<b>0.0040J</b>	mg/L	0.010	0.0019	1	06/20/18 11:50	06/22/18 20:05	7439-98-7	
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C							
Total Dissolved Solids	<b>146</b>	mg/L	25.0	10.0	1		06/12/18 10:18		
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0							
Chloride	<b>1.0</b>	mg/L	0.25	0.024	1		06/22/18 21:16	16887-00-6	B
Fluoride	<b>0.11J</b>	mg/L	0.30	0.029	1		06/22/18 21:16	16984-48-8	
Sulfate	<b>8.8</b>	mg/L	1.0	0.017	1		06/22/18 21:16	14808-79-8	

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### ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds  
Pace Project No.: 265916

Sample: <b>FB-1-6-7-18</b>		Lab ID: <b>265916004</b>		Collected: 06/07/18 12:30		Received: 06/08/18 15:55		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6020B MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Arsenic	ND	mg/L	0.0050	0.00057	1	06/20/18 11:50	06/22/18 20:16	7440-38-2	
Barium	ND	mg/L	0.010	0.00078	1	06/20/18 11:50	06/22/18 20:16	7440-39-3	
Boron	ND	mg/L	0.040	0.0039	1	06/20/18 11:50	06/22/18 20:16	7440-42-8	
Calcium	<b>0.024J</b>	mg/L	0.50	0.014	1	06/20/18 11:50	06/22/18 20:16	7440-70-2	
Cobalt	ND	mg/L	0.010	0.00052	1	06/20/18 11:50	06/22/18 20:16	7440-48-4	
Lithium	ND	mg/L	0.050	0.00097	1	06/20/18 11:50	06/22/18 20:16	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	06/20/18 11:50	06/22/18 20:16	7439-98-7	
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C							
Total Dissolved Solids	<b>15.0J</b>	mg/L	25.0	10.0	1		06/12/18 10:18		
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0							
Chloride	<b>0.30</b>	mg/L	0.25	0.024	1		06/22/18 21:36	16887-00-6	B
Fluoride	ND	mg/L	0.30	0.029	1		06/22/18 21:36	16984-48-8	
Sulfate	ND	mg/L	1.0	0.017	1		06/22/18 21:36	14808-79-8	

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### ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds

Pace Project No.: 265916

Sample: YGWA-3D		Lab ID: 265916005		Collected: 06/07/18 14:35		Received: 06/08/18 15:55		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6020B MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Arsenic	ND	mg/L	0.0050	0.00057	1	06/20/18 11:50	06/22/18 20:22	7440-38-2	
Barium	<b>0.0068J</b>	mg/L	0.010	0.00078	1	06/20/18 11:50	06/22/18 20:22	7440-39-3	
Boron	<b>0.0040J</b>	mg/L	0.040	0.0039	1	06/20/18 11:50	06/22/18 20:22	7440-42-8	
Calcium	<b>29.1</b>	mg/L	25.0	0.69	50	06/20/18 11:50	06/22/18 20:28	7440-70-2	
Cobalt	ND	mg/L	0.010	0.00052	1	06/20/18 11:50	06/22/18 20:22	7440-48-4	
Lithium	<b>0.020J</b>	mg/L	0.050	0.00097	1	06/20/18 11:50	06/22/18 20:22	7439-93-2	
Molybdenum	<b>0.011</b>	mg/L	0.010	0.0019	1	06/20/18 11:50	06/22/18 20:22	7439-98-7	
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C							
Total Dissolved Solids	<b>95.0</b>	mg/L	25.0	10.0	1		06/12/18 10:18		
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0							
Chloride	<b>1.2</b>	mg/L	0.25	0.024	1		06/22/18 22:18	16887-00-6	B
Fluoride	<b>0.48</b>	mg/L	0.30	0.029	1		06/22/18 22:18	16984-48-8	
Sulfate	<b>6.7</b>	mg/L	1.0	0.017	1		06/22/18 22:18	14808-79-8	

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### ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds  
Pace Project No.: 265916

Sample: YGWA-3I		Lab ID: 265916006		Collected: 06/08/18 10:05		Received: 06/08/18 15:55		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6020B MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Arsenic	ND	mg/L	0.0050	0.00057	1	06/20/18 11:50	06/22/18 20:34	7440-38-2	
Barium	<b>0.0034J</b>	mg/L	0.010	0.00078	1	06/20/18 11:50	06/22/18 20:34	7440-39-3	
Boron	ND	mg/L	0.040	0.0039	1	06/20/18 11:50	06/22/18 20:34	7440-42-8	
Calcium	<b>21.9J</b>	mg/L	25.0	0.69	50	06/20/18 11:50	06/22/18 20:39	7440-70-2	D3
Cobalt	ND	mg/L	0.010	0.00052	1	06/20/18 11:50	06/22/18 20:34	7440-48-4	
Lithium	<b>0.012J</b>	mg/L	0.050	0.00097	1	06/20/18 11:50	06/22/18 20:34	7439-93-2	
Molybdenum	<b>0.0041J</b>	mg/L	0.010	0.0019	1	06/20/18 11:50	06/22/18 20:34	7439-98-7	
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C							
Total Dissolved Solids	<b>158</b>	mg/L	25.0	10.0	1		06/12/18 10:18		
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0							
Chloride	<b>1.2</b>	mg/L	0.25	0.024	1		06/22/18 22:38	16887-00-6	B
Fluoride	<b>0.20J</b>	mg/L	0.30	0.029	1		06/22/18 22:38	16984-48-8	
Sulfate	<b>9.6</b>	mg/L	1.0	0.017	1		06/22/18 22:38	14808-79-8	

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### ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds

Pace Project No.: 265916

Sample: Dup-1		Lab ID: 265916007		Collected: 06/08/18 00:00	Received: 06/08/18 15:55	Matrix: Water				
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
<b>6020B MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Arsenic	ND	mg/L	0.0050	0.00057	1	06/20/18 11:50	06/22/18 20:56	7440-38-2		
Barium	<b>0.0074J</b>	mg/L	0.010	0.00078	1	06/20/18 11:50	06/22/18 20:56	7440-39-3		
Boron	<b>0.015J</b>	mg/L	0.040	0.0039	1	06/20/18 11:50	06/22/18 20:56	7440-42-8		
Calcium	<b>1.1</b>	mg/L	0.50	0.014	1	06/20/18 11:50	06/22/18 20:56	7440-70-2		
Cobalt	ND	mg/L	0.010	0.00052	1	06/20/18 11:50	06/22/18 20:56	7440-48-4		
Lithium	ND	mg/L	0.050	0.00097	1	06/20/18 11:50	06/22/18 20:56	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.0019	1	06/20/18 11:50	06/22/18 20:56	7439-98-7		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C								
Total Dissolved Solids	<b>105</b>	mg/L	25.0	10.0	1		06/12/18 10:18			
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0								
Chloride	<b>3.4</b>	mg/L	0.25	0.024	1		06/22/18 22:59	16887-00-6		
Fluoride	ND	mg/L	0.30	0.029	1		06/22/18 22:59	16984-48-8		
Sulfate	<b>6.4</b>	mg/L	1.0	0.017	1		06/22/18 22:59	14808-79-8		

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds  
Pace Project No.: 265916

<b>Sample: YGWA-14S</b>		<b>Lab ID: 265916008</b>		Collected: 06/08/18 11:25	Received: 06/08/18 15:55	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
<b>6020B MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Arsenic	ND	mg/L	0.0050	0.00057	1	06/20/18 11:50	06/22/18 21:08	7440-38-2		
Barium	<b>0.0070J</b>	mg/L	0.010	0.00078	1	06/20/18 11:50	06/22/18 21:08	7440-39-3		
Boron	<b>0.013J</b>	mg/L	0.040	0.0039	1	06/20/18 11:50	06/22/18 21:08	7440-42-8		
Calcium	<b>1.1</b>	mg/L	0.50	0.014	1	06/20/18 11:50	06/22/18 21:08	7440-70-2		
Cobalt	ND	mg/L	0.010	0.00052	1	06/20/18 11:50	06/22/18 21:08	7440-48-4		
Lithium	ND	mg/L	0.050	0.00097	1	06/20/18 11:50	06/22/18 21:08	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.0019	1	06/20/18 11:50	06/22/18 21:08	7439-98-7		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C								
Total Dissolved Solids	<b>114</b>	mg/L	25.0	10.0	1		06/12/18 10:18			
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0								
Chloride	<b>3.4</b>	mg/L	0.25	0.024	1		06/22/18 23:20	16887-00-6		
Fluoride	ND	mg/L	0.30	0.029	1		06/22/18 23:20	16984-48-8		
Sulfate	<b>6.4</b>	mg/L	1.0	0.017	1		06/22/18 23:20	14808-79-8		

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### QUALITY CONTROL DATA

Project: Plant Yates Ash Ponds  
Pace Project No.: 265916

QC Batch: 8374 Analysis Method: EPA 6020B  
QC Batch Method: EPA 3005A Analysis Description: 6020B MET  
Associated Lab Samples: 265916001, 265916002, 265916003, 265916004, 265916005, 265916006, 265916007, 265916008

METHOD BLANK: 38651 Matrix: Water  
Associated Lab Samples: 265916001, 265916002, 265916003, 265916004, 265916005, 265916006, 265916007, 265916008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic	mg/L	ND	0.0050	0.00057	06/22/18 17:48	
Barium	mg/L	ND	0.010	0.00078	06/22/18 17:48	
Boron	mg/L	ND	0.040	0.0039	06/22/18 17:48	
Calcium	mg/L	ND	0.50	0.014	06/22/18 17:48	
Cobalt	mg/L	ND	0.010	0.00052	06/22/18 17:48	
Lithium	mg/L	ND	0.050	0.00097	06/22/18 17:48	
Molybdenum	mg/L	ND	0.010	0.0019	06/22/18 17:48	

LABORATORY CONTROL SAMPLE: 38652

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/L	.1	0.10	103	80-120	
Barium	mg/L	.1	0.10	102	80-120	
Boron	mg/L	1	1.0	105	80-120	
Calcium	mg/L	1	1.0	101	80-120	
Cobalt	mg/L	.1	0.10	103	80-120	
Lithium	mg/L	.1	0.11	106	80-120	
Molybdenum	mg/L	.1	0.10	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 38708 38709

Parameter	Units	265864001 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	Spike Conc.	MS Result	MSD Result						
Arsenic	mg/L	ND	.1	.1	0.10	0.10	102	101	75-125	0	20	
Barium	mg/L	0.039	.1	.1	0.14	0.14	105	101	75-125	3	20	
Boron	mg/L	0.87	1	1	2.0	1.8	111	88	75-125	12	20	
Calcium	mg/L	55.0	1	1	55.4	52.6	44	-235	75-125	5	20	M6
Cobalt	mg/L	ND	.1	.1	0.099	0.098	99	98	75-125	1	20	
Lithium	mg/L	0.00099J	.1	.1	0.10	0.10	104	102	75-125	2	20	
Molybdenum	mg/L	ND	.1	.1	0.10	0.099	101	99	75-125	1	20	

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**QUALITY CONTROL DATA**

Project: Plant Yates Ash Ponds

Pace Project No.: 265916

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QC Batch: 7739	Analysis Method: SM 2540C
QC Batch Method: SM 2540C	Analysis Description: 2540C Total Dissolved Solids
Associated Lab Samples: 265916001, 265916002	

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LABORATORY CONTROL SAMPLE: 36105

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	400	100	84-108	

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SAMPLE DUPLICATE: 36106

Parameter	Units	265916001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	127	127	0	10	

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### QUALITY CONTROL DATA

Project: Plant Yates Ash Ponds  
Pace Project No.: 265916

QC Batch: 7764 Analysis Method: SM 2540C  
QC Batch Method: SM 2540C Analysis Description: 2540C Total Dissolved Solids  
Associated Lab Samples: 265916003, 265916004, 265916005, 265916006, 265916007, 265916008

LABORATORY CONTROL SAMPLE: 36149

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	410	102	84-108	

SAMPLE DUPLICATE: 36150

Parameter	Units	265888001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	223	226	1	10	

SAMPLE DUPLICATE: 36151

Parameter	Units	265933001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	63.0	74.0	16	10	D6

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### QUALITY CONTROL DATA

Project: Plant Yates Ash Ponds  
Pace Project No.: 265916

QC Batch: 7994 Analysis Method: EPA 300.0  
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions  
Associated Lab Samples: 265916001, 265916002

METHOD BLANK: 36997 Matrix: Water  
Associated Lab Samples: 265916001, 265916002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.024	06/14/18 16:54	
Fluoride	mg/L	ND	0.30	0.029	06/14/18 16:54	
Sulfate	mg/L	ND	1.0	0.017	06/14/18 16:54	

LABORATORY CONTROL SAMPLE: 36998

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	10	10.3	103	90-110	
Fluoride	mg/L	10	10.4	104	90-110	
Sulfate	mg/L	10	10.7	107	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 36999 37000

Parameter	Units	265797001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	6.3	10	10	15.9	15.9	96	96	90-110	0	15	
Fluoride	mg/L	ND	10	10	10.1	10.1	101	101	90-110	0	15	
Sulfate	mg/L	46.6	10	10	52.3	52.3	57	57	90-110	0	15 E	

MATRIX SPIKE SAMPLE: 37001

Parameter	Units	265797002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	4.5	10	14.4	98	90-110	
Fluoride	mg/L	0.097J	10	10.2	101	90-110	
Sulfate	mg/L	4.9	10	17.4	125	90-110 M1	

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### QUALITY CONTROL DATA

Project: Plant Yates Ash Ponds

Pace Project No.: 265916

QC Batch: 8546 Analysis Method: EPA 300.0  
 QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions  
 Associated Lab Samples: 265916003, 265916004, 265916005, 265916006, 265916007, 265916008

METHOD BLANK: 39316 Matrix: Water  
 Associated Lab Samples: 265916003, 265916004, 265916005, 265916006, 265916007, 265916008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	0.27	0.25	0.024	06/22/18 15:46	
Fluoride	mg/L	ND	0.30	0.029	06/22/18 15:46	
Sulfate	mg/L	ND	1.0	0.017	06/22/18 15:46	

LABORATORY CONTROL SAMPLE: 39317

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	10	9.5	95	90-110	
Fluoride	mg/L	10	10	100	90-110	
Sulfate	mg/L	10	9.8	98	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 39318 39319

Parameter	Units	265917001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	1.7	10	10	11.2	11.2	95	95	90-110	0	15	
Fluoride	mg/L	0.13J	10	10	9.9	9.9	98	98	90-110	0	15	
Sulfate	mg/L	6.1	10	10	15.4	15.5	94	94	90-110	0	15	

MATRIX SPIKE SAMPLE: 39320

Parameter	Units	265917002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	2.7	10	12.3	97	90-110	
Fluoride	mg/L	ND	10	9.9	99	90-110	
Sulfate	mg/L	0.049J	10	9.8	98	90-110	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds

Pace Project No.: 265916

**Sample: YGWA-1D**      **Lab ID: 265916001**      Collected: 06/05/18 14:20      Received: 06/08/18 15:55      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	<b>0.204 ± 0.273 (0.590)</b> C:86% T:NA	pCi/L	06/28/18 08:12	13982-63-3	
Radium-228	EPA 9320	<b>0.567 ± 0.447 (0.880)</b> C:67% T:78%	pCi/L	06/29/18 11:55	15262-20-1	
Total Radium	Total Radium Calculation	<b>0.771 ± 0.720 (1.47)</b>	pCi/L	07/02/18 16:18	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds

Pace Project No.: 265916

**Sample: YGWA-11**      **Lab ID: 265916002**      Collected: 06/06/18 11:30      Received: 06/08/18 15:55      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	<b>0.234 ± 0.220 (0.390)</b> C:75% T:NA	pCi/L	06/28/18 08:12	13982-63-3	
Radium-228	EPA 9320	<b>2.57 ± 0.925 (1.33)</b> C:69% T:70%	pCi/L	06/29/18 14:32	15262-20-1	
Total Radium	Total Radium Calculation	<b>2.80 ± 1.15 (1.72)</b>	pCi/L	07/02/18 16:18	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds

Pace Project No.: 265916

**Sample: YGWA-2I**      **Lab ID: 265916003**      Collected: 06/07/18 13:05      Received: 06/08/18 15:55      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	<b>0.252 ± 0.239 (0.459)</b> <b>C:86% T:NA</b>	pCi/L	06/28/18 08:12	13982-63-3	
Radium-228	EPA 9320	<b>0.478 ± 0.444 (0.900)</b> <b>C:66% T:76%</b>	pCi/L	06/29/18 11:56	15262-20-1	
Total Radium	Total Radium Calculation	<b>0.730 ± 0.683 (1.36)</b>	pCi/L	07/02/18 16:18	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds

Pace Project No.: 265916

**Sample: FB-1-6-7-18**      **Lab ID: 265916004**      Collected: 06/07/18 12:30      Received: 06/08/18 15:55      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	<b>0.201 ± 0.245 (0.509)</b> C:77% T:NA	pCi/L	06/28/18 08:12	13982-63-3	
Radium-228	EPA 9320	<b>0.296 ± 0.357 (0.747)</b> C:68% T:72%	pCi/L	06/29/18 11:56	15262-20-1	
Total Radium	Total Radium Calculation	<b>0.497 ± 0.602 (1.26)</b>	pCi/L	07/02/18 16:18	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds

Pace Project No.: 265916

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	<b>1.13 ± 0.405 (0.368)</b> C:91% T:NA	pCi/L	06/28/18 08:12	13982-63-3	
Radium-228	EPA 9320	<b>1.66 ± 0.615 (0.869)</b> C:71% T:68%	pCi/L	06/29/18 11:56	15262-20-1	
Total Radium	Total Radium Calculation	<b>2.79 ± 1.02 (1.24)</b>	pCi/L	07/02/18 16:23	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds

Pace Project No.: 265916

**Sample: YGWA-3I**      **Lab ID: 265916006**      Collected: 06/08/18 10:05      Received: 06/08/18 15:55      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	<b>0.688 ± 0.351 (0.510)</b> C:85% T:NA	pCi/L	06/28/18 08:12	13982-63-3	
Radium-228	EPA 9320	<b>1.20 ± 0.548 (0.908)</b> C:68% T:77%	pCi/L	06/29/18 11:56	15262-20-1	
Total Radium	Total Radium Calculation	<b>1.89 ± 0.899 (1.42)</b>	pCi/L	07/02/18 16:23	7440-14-4	

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**ANALYTICAL RESULTS - RADIOCHEMISTRY**

Project: Plant Yates Ash Ponds

Pace Project No.: 265916

**Sample: Dup-1**      **Lab ID: 265916007**      Collected: 06/08/18 00:00      Received: 06/08/18 15:55      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	<b>0.603 ± 0.303 (0.396)</b> C:90% T:NA	pCi/L	06/28/18 08:12	13982-63-3	
Radium-228	EPA 9320	<b>-0.132 ± 0.395 (0.952)</b> C:67% T:80%	pCi/L	06/29/18 11:56	15262-20-1	
Total Radium	Total Radium Calculation	<b>0.603 ± 0.698 (1.35)</b>	pCi/L	07/02/18 16:23	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds

Pace Project No.: 265916

**Sample: YGWA-14S**      **Lab ID: 265916008**      Collected: 06/08/18 11:25      Received: 06/08/18 15:55      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	<b>0.218 ± 0.222 (0.425)</b> <b>C:82% T:NA</b>	pCi/L	06/28/18 08:12	13982-63-3	
Radium-228	EPA 9320	<b>-0.183 ± 0.358 (0.885)</b> <b>C:68% T:79%</b>	pCi/L	06/29/18 11:56	15262-20-1	
Total Radium	Total Radium Calculation	<b>0.218 ± 0.580 (1.31)</b>	pCi/L	07/02/18 16:23	7440-14-4	

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds

Pace Project No.: 265916

QC Batch: 302387

Analysis Method: EPA 9320

QC Batch Method: EPA 9320

Analysis Description: 9320 Radium 228

Associated Lab Samples: 265916001, 265916002, 265916003, 265916004, 265916005, 265916006, 265916007, 265916008

METHOD BLANK: 1479691

Matrix: Water

Associated Lab Samples: 265916001, 265916002, 265916003, 265916004, 265916005, 265916006, 265916007, 265916008

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.0160 ± 0.341 (0.788) C:81% T:80%	pCi/L	06/29/18 11:54	

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds

Pace Project No.: 265916

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QC Batch:	302779	Analysis Method:	EPA 9315
QC Batch Method:	EPA 9315	Analysis Description:	9315 Total Radium
Associated Lab Samples:	265916001, 265916002, 265916003, 265916004, 265916005, 265916006, 265916007, 265916008		

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METHOD BLANK:	1481497	Matrix:	Water
Associated Lab Samples:	265916001, 265916002, 265916003, 265916004, 265916005, 265916006, 265916007, 265916008		

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.234 ± 0.205 (0.355) C:82% T:NA	pCi/L	06/28/18 08:12	

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## QUALIFIERS

Project: Plant Yates Ash Ponds

Pace Project No.: 265916

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### 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-GA Pace Analytical Services - Atlanta, GA

PASI-PA Pace Analytical Services - Greensburg

### ANALYTE QUALIFIERS

B Analyte was detected in the associated method blank.

D3 Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

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

E Analyte concentration exceeded the calibration range. The reported result is estimated.

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

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

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Yates Ash Ponds  
Pace Project No.: 265916

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
265916001	YGWA-1D	EPA 3005A	8374	EPA 6020B	8605
265916002	YGWA-1I	EPA 3005A	8374	EPA 6020B	8605
265916003	YGWA-2I	EPA 3005A	8374	EPA 6020B	8605
265916004	FB-1-6-7-18	EPA 3005A	8374	EPA 6020B	8605
265916005	YGWA-3D	EPA 3005A	8374	EPA 6020B	8605
265916006	YGWA-3I	EPA 3005A	8374	EPA 6020B	8605
265916007	Dup-1	EPA 3005A	8374	EPA 6020B	8605
265916008	YGWA-14S	EPA 3005A	8374	EPA 6020B	8605
265916001	YGWA-1D	EPA 9315	302779		
265916002	YGWA-1I	EPA 9315	302779		
265916003	YGWA-2I	EPA 9315	302779		
265916004	FB-1-6-7-18	EPA 9315	302779		
265916005	YGWA-3D	EPA 9315	302779		
265916006	YGWA-3I	EPA 9315	302779		
265916007	Dup-1	EPA 9315	302779		
265916008	YGWA-14S	EPA 9315	302779		
265916001	YGWA-1D	EPA 9320	302387		
265916002	YGWA-1I	EPA 9320	302387		
265916003	YGWA-2I	EPA 9320	302387		
265916004	FB-1-6-7-18	EPA 9320	302387		
265916005	YGWA-3D	EPA 9320	302387		
265916006	YGWA-3I	EPA 9320	302387		
265916007	Dup-1	EPA 9320	302387		
265916008	YGWA-14S	EPA 9320	302387		
265916001	YGWA-1D	Total Radium Calculation	304449		
265916002	YGWA-1I	Total Radium Calculation	304449		
265916003	YGWA-2I	Total Radium Calculation	304449		
265916004	FB-1-6-7-18	Total Radium Calculation	304449		
265916005	YGWA-3D	Total Radium Calculation	304450		
265916006	YGWA-3I	Total Radium Calculation	304450		
265916007	Dup-1	Total Radium Calculation	304450		
265916008	YGWA-14S	Total Radium Calculation	304450		
265916001	YGWA-1D	SM 2540C	7739		
265916002	YGWA-1I	SM 2540C	7739		
265916003	YGWA-2I	SM 2540C	7764		
265916004	FB-1-6-7-18	SM 2540C	7764		
265916005	YGWA-3D	SM 2540C	7764		
265916006	YGWA-3I	SM 2540C	7764		
265916007	Dup-1	SM 2540C	7764		
265916008	YGWA-14S	SM 2540C	7764		
265916001	YGWA-1D	EPA 300.0	7994		
265916002	YGWA-1I	EPA 300.0	7994		
265916003	YGWA-2I	EPA 300.0	8546		
265916004	FB-1-6-7-18	EPA 300.0	8546		
265916005	YGWA-3D	EPA 300.0	8546		

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Yates Ash Ponds

Pace Project No.: 265916

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
265916006	YGWA-3I	EPA 300.0	8546		
265916007	Dup-1	EPA 300.0	8546		
265916008	YGWA-14S	EPA 300.0	8546		

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

**CHAIN OF CUSTODY RECORD**

PAGE: \_\_\_\_\_ OF \_\_\_\_\_

<b>CLIENT NAME:</b> Georgia Power <b>CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER:</b> 241 Ralph McGill Blvd SE B10185 Atlanta, GA 30308 404-506-7239		<b>REPORT TO:</b> Joju Abraham / Lauren Petty <b>CC:</b> Maria Padilla Health McCorkle <b>REQUESTED COMPLETION DATE:</b> _____ <b>FO #:</b> SCS10348606 <b>PROJECT NAME/STATE:</b> Plant Yates - Ash Pond 2	
<b>CONTAINER TYPE:</b> # of <b>CONTAINERS</b>		<b>ANALYSIS REQUESTED</b>	
<b>CONTAINER TYPE:</b> P 3 P 7 P 3 <b>PRESERVATION:</b>		<b>CONTAINER TYPE:</b> P - PLASTIC A - AMBER GLASS G - CLEAR GLASS V - VOA VIAL S - STERILE O - OTHER <b>PRESERVATION</b> 1 - HCl, 56°C 2 - H <sub>2</sub> SO <sub>4</sub> , 56°C 3 - HNO <sub>3</sub> 4 - NaOH, 56°C 5 - NaOH/ZnAc, 56°C 6 - Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> , 56°C 7 - 56°C not frozen	
<b>CONTAINER TYPE:</b> DW - DRINKING WATER WW - WASTEWATER GW - GROUNDWATER SW - SURFACE WATER ST - STORM-WATER W - WATER <b>S - SOIL</b> <b>SL - SLUDGE</b> <b>SD - SOLID</b> <b>A - AIR</b> <b>L - LIQUID</b> <b>P - PRODUCT</b>		<b>REMARKS/ADDITIONAL INFORMATION</b>	
<b>LAB #:</b> 265916 		<b>DATE/TIME:</b> 6/28/18 11:25 <b>DATE/TIME:</b> 6/28/18 15:55	
<b>RELINQUISHED BY:</b> N. M. Furr <b>RELINQUISHED BY:</b>		<b>DATE/TIME:</b> 6/28/18 11:25 <b>DATE/TIME:</b> 6/28/18 15:55	
<b>SAMPLED BY AND TITLE:</b> Ben's 204 (ACC)		<b>RECEIVED BY:</b>	
<b>RECEIVED BY LAB:</b> <i>Ben's 204</i>		<b>RECEIVED BY:</b> <i>Ben's 204</i>	
<b>TEMPERATURE:</b> 1125		<b>TEMPERATURE:</b> 1555	
<b>DATE/TIME:</b> 6/28/18 11:25		<b>DATE/TIME:</b> 6/28/18 15:55	
<b>RECEIVED BY:</b> <i>Ben's 204</i>		<b>RECEIVED BY:</b> <i>Ben's 204</i>	
<b>DATE/TIME:</b> 6/28/18 11:25		<b>DATE/TIME:</b> 6/28/18 15:55	
<b>RECEIVED BY:</b> <i>Ben's 204</i>		<b>RECEIVED BY:</b> <i>Ben's 204</i>	

\*APP III and detected APP IV metals (As, Ba, Co, F, Li, Mo, and Ra)

**Sample Condition Upon Receipt**



Client Name: GLA Power

Project # \_\_\_\_\_

Courier:  Fed Ex  UPS  USPS  Client  Commercial  Pace Other

Tracking #: \_\_\_\_\_

**WO#: 265916**

PM: **BM** Due Date: **07/09/18**

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

**CLIENT: GAPower-CCR**

Packing Material:  Bubble Wrap  Bubble Bags  None  Other

Thermometer Used 83 Type of Ice: Wal Blue None  Samples on ice, cooling process has begun

Cooler Temperature 0.4 Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: 6/8/18 BM

Temp should be above freezing to 6°C

Comments:

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

**Client Notification/ Resolution:**

Field Data Required? Y / N

Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Comments/ Resolution: \_\_\_\_\_

**Project Manager Review:** \_\_\_\_\_

**Date:** \_\_\_\_\_

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

July 13, 2018

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

RE: Project: Plant Yates Ash Ponds 2  
Pace Project No.: 266085

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on June 14, 2018. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,



Betsy McDaniel  
betsy.mcdaniel@pacelabs.com  
(770)734-4200  
Project Manager

Enclosures

cc: Maria Padilla, Georgia Power  
Chris Parker, Atlantic Coast Consulting  
Evan Perry, Atlantic Coast Consulting  
Lauren Petty, Southern Company Services, Inc.  
Rebecca Thornton, Pace Analytical Atlanta



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: Plant Yates Ash Ponds 2  
Pace Project No.: 266085

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### Atlanta Certification IDs

110 Technology Parkway Peachtree Corners, GA 30092	North Carolina Certification #: 381
Florida DOH Certification #: E87315	South Carolina Certification #: 98011001
Georgia DW Inorganics Certification #: 812	Texas Certification #: T104704397-08-TX
Georgia DW Microbiology Certification #: 812	Virginia Certification #: 460204

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### Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601	Missouri Certification #: 235
ANAB DOD-ELAP Rad Accreditation #: L2417	Montana Certification #: Cert0082
Alabama Certification #: 41590	Nebraska Certification #: NE-OS-29-14
Arizona Certification #: AZ0734	Nevada Certification #: PA014572018-1
Arkansas Certification	New Hampshire/TNI Certification #: 297617
California Certification #: 04222CA	New Jersey/TNI Certification #: PA051
Colorado Certification #: PA01547	New Mexico Certification #: PA01457
Connecticut Certification #: PH-0694	New York/TNI Certification #: 10888
Delaware Certification	North Carolina Certification #: 42706
EPA Region 4 DW Rad	North Dakota Certification #: R-190
Florida/TNI Certification #: E87683	Ohio EPA Rad Approval: #41249
Georgia Certification #: C040	Oregon/TNI Certification #: PA200002-010
Guam Certification	Pennsylvania/TNI Certification #: 65-00282
Hawaii Certification	Puerto Rico Certification #: PA01457
Idaho Certification	Rhode Island Certification #: 65-00282
Illinois Certification	South Dakota Certification
Indiana Certification	Tennessee Certification #: 02867
Iowa Certification #: 391	Texas/TNI Certification #: T104704188-17-3
Kansas/TNI Certification #: E-10358	Utah/TNI Certification #: PA014572017-9
Kentucky Certification #: KY90133	USDA Soil Permit #: P330-17-00091
KY WW Permit #: KY0098221	Vermont Dept. of Health: ID# VT-0282
KY WW Permit #: KY0000221	Virgin Island/PADEP Certification
Louisiana DHH/TNI Certification #: LA180012	Virginia/VELAP Certification #: 9526
Louisiana DEQ/TNI Certification #: 4086	Washington Certification #: C868
Maine Certification #: 2017020	West Virginia DEP Certification #: 143
Maryland Certification #: 308	West Virginia DHHR Certification #: 9964C
Massachusetts Certification #: M-PA1457	Wisconsin Approve List for Rad
Michigan/PADEP Certification #: 9991	Wyoming Certification #: 8TMS-L

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## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: Plant Yates Ash Ponds 2

Pace Project No.: 266085

Lab ID	Sample ID	Matrix	Date Collected	Date Received
266085001	Dup-2	Water	06/12/18 00:00	06/14/18 09:00
266085002	EB-1-6-11-18	Water	06/11/18 11:40	06/14/18 09:00
266085003	YGWA-30I	Water	06/11/18 12:00	06/14/18 09:00
266085004	YGWC-29I	Water	06/11/18 14:10	06/14/18 09:00
266085005	YGWC-28S	Water	06/12/18 12:20	06/14/18 09:00
266085006	YGWC-28I	Water	06/12/18 14:00	06/14/18 09:00
266085007	YGWC-27S	Water	06/12/18 15:00	06/14/18 09:00
266085008	EB-2-6-13-18	Water	06/13/18 09:40	06/14/18 09:00
266085009	YGWC-27I	Water	06/13/18 10:10	06/14/18 09:00
266085010	FB-2-6-13-18	Water	06/13/18 11:00	06/14/18 09:00
266085011	YGWC-26S	Water	06/13/18 11:45	06/14/18 09:00
266085012	YGWC-26I	Water	06/13/18 12:45	06/14/18 09:00

## REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: Plant Yates Ash Ponds 2  
Pace Project No.: 266085

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
266085001	Dup-2	EPA 6020B	CSW	7	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		SM 2540C	JPT	1	PASI-GA
		EPA 300.0	RLC	3	PASI-GA
266085002	EB-1-6-11-18	EPA 6020B	CSW	7	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		SM 2540C	JPT	1	PASI-GA
		EPA 300.0	RLC	3	PASI-GA
266085003	YGWA-30I	EPA 6020B	CSW	7	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		SM 2540C	JPT	1	PASI-GA
		EPA 300.0	RLC	3	PASI-GA
266085004	YGWC-29I	EPA 6020B	CSW	7	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		SM 2540C	JPT	1	PASI-GA
		EPA 300.0	RLC	3	PASI-GA
266085005	YGWC-28S	EPA 6020B	CSW	7	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		SM 2540C	JPT	1	PASI-GA
		EPA 300.0	RLC	3	PASI-GA
266085006	YGWC-28I	EPA 6020B	CSW	7	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		SM 2540C	JPT	1	PASI-GA
		EPA 300.0	RLC	3	PASI-GA
266085007	YGWC-27S	EPA 6020B	CSW	7	PASI-GA

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### SAMPLE ANALYTE COUNT

Project: Plant Yates Ash Ponds 2  
Pace Project No.: 266085

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
266085008	EB-2-6-13-18	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		SM 2540C	JPT	1	PASI-GA
		EPA 300.0	RLC	3	PASI-GA
		EPA 6020B	CSW	7	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		SM 2540C	JPT	1	PASI-GA
266085009	YGWC-27I	EPA 300.0	MWB	3	PASI-GA
		EPA 6020B	CSW	7	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		SM 2540C	JPT	1	PASI-GA
		EPA 300.0	MWB	3	PASI-GA
		EPA 6020B	CSW	7	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
266085010	FB-2-6-13-18	Total Radium Calculation	CMC	1	PASI-PA
		SM 2540C	JPT	1	PASI-GA
		EPA 300.0	MWB	3	PASI-GA
		EPA 6020B	CSW	7	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		SM 2540C	JPT	1	PASI-GA
		EPA 300.0	MWB	3	PASI-GA
		EPA 6020B	CSW	7	PASI-GA
266085011	YGWC-26S	EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		SM 2540C	JPT	1	PASI-GA
		EPA 300.0	MWB, RLC	3	PASI-GA
		EPA 6020B	CSW	7	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		SM 2540C	JPT	1	PASI-GA
266085012	YGWC-26I	EPA 300.0	MWB, RLC	3	PASI-GA
		EPA 6020B	CSW	7	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	JLW	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		SM 2540C	JPT	1	PASI-GA
		EPA 300.0	MWB, RLC	3	PASI-GA

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds 2

Pace Project No.: 266085

Sample: Dup-2		Lab ID: 266085001		Collected: 06/12/18 00:00		Received: 06/14/18 09:00		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6020B MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Arsenic	<b>0.0013J</b>	mg/L	0.0050	0.00057	1	06/20/18 15:24	06/26/18 15:25	7440-38-2	
Barium	<b>0.21</b>	mg/L	0.010	0.00078	1	06/20/18 15:24	06/26/18 15:25	7440-39-3	
Boron	<b>2.8</b>	mg/L	0.040	0.0039	1	06/20/18 15:24	06/26/18 15:25	7440-42-8	
Calcium	<b>27.1</b>	mg/L	5.0	0.14	10	06/20/18 15:24	06/26/18 15:30	7440-70-2	M6
Cobalt	<b>0.0011J</b>	mg/L	0.010	0.00052	1	06/20/18 15:24	06/26/18 15:25	7440-48-4	
Lithium	ND	mg/L	0.050	0.00097	1	06/20/18 15:24	06/26/18 15:25	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	06/20/18 15:24	06/26/18 15:25	7439-98-7	
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C							
Total Dissolved Solids	<b>247</b>	mg/L	25.0	10.0	1		06/15/18 11:54		
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0							
Chloride	<b>19.3</b>	mg/L	0.25	0.024	1		06/28/18 00:49	16887-00-6	
Fluoride	<b>0.33</b>	mg/L	0.30	0.029	1		06/28/18 00:49	16984-48-8	
Sulfate	<b>2.9</b>	mg/L	1.0	0.017	1		06/28/18 00:49	14808-79-8	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds 2

Pace Project No.: 266085

Sample: EB-1-6-11-18		Lab ID: 266085002		Collected: 06/11/18 11:40		Received: 06/14/18 09:00		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6020B MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Arsenic	ND	mg/L	0.0050	0.00057	1	06/20/18 15:24	06/26/18 16:44	7440-38-2	
Barium	ND	mg/L	0.010	0.00078	1	06/20/18 15:24	06/26/18 16:44	7440-39-3	
Boron	<b>0.023J</b>	mg/L	0.040	0.0039	1	06/20/18 15:24	06/26/18 16:44	7440-42-8	
Calcium	<b>0.021J</b>	mg/L	0.50	0.014	1	06/20/18 15:24	06/26/18 16:44	7440-70-2	
Cobalt	ND	mg/L	0.010	0.00052	1	06/20/18 15:24	06/26/18 16:44	7440-48-4	
Lithium	ND	mg/L	0.050	0.00097	1	06/20/18 15:24	06/26/18 16:44	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	06/20/18 15:24	06/26/18 16:44	7439-98-7	
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C							
Total Dissolved Solids	<b>10.0J</b>	mg/L	25.0	10.0	1		06/15/18 11:53		
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0							
Chloride	<b>0.15J</b>	mg/L	0.25	0.024	1		06/27/18 19:53	16887-00-6	B
Fluoride	ND	mg/L	0.30	0.029	1		06/27/18 19:53	16984-48-8	
Sulfate	ND	mg/L	1.0	0.017	1		06/27/18 19:53	14808-79-8	

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### ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds 2  
Pace Project No.: 266085

Sample: YGWA-30I		Lab ID: 266085003		Collected: 06/11/18 12:00		Received: 06/14/18 09:00		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6020B MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Arsenic	ND	mg/L	0.0050	0.00057	1	06/20/18 15:24	06/26/18 16:49	7440-38-2	
Barium	<b>0.0070J</b>	mg/L	0.010	0.00078	1	06/20/18 15:24	06/26/18 16:49	7440-39-3	
Boron	<b>0.014J</b>	mg/L	0.040	0.0039	1	06/20/18 15:24	06/26/18 16:49	7440-42-8	
Calcium	<b>1.1</b>	mg/L	0.50	0.014	1	06/20/18 15:24	06/26/18 16:49	7440-70-2	
Cobalt	<b>0.023</b>	mg/L	0.010	0.00052	1	06/20/18 15:24	06/26/18 16:49	7440-48-4	
Lithium	<b>0.0012J</b>	mg/L	0.050	0.00097	1	06/20/18 15:24	06/26/18 16:49	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	06/20/18 15:24	06/26/18 16:49	7439-98-7	
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C							
Total Dissolved Solids	<b>59.0</b>	mg/L	25.0	10.0	1		06/15/18 11:54		
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0							
Chloride	<b>2.0</b>	mg/L	0.25	0.024	1		06/27/18 20:15	16887-00-6	B
Fluoride	ND	mg/L	0.30	0.029	1		06/27/18 20:15	16984-48-8	M1
Sulfate	<b>1.1</b>	mg/L	1.0	0.017	1		06/27/18 20:15	14808-79-8	

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### ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds 2  
Pace Project No.: 266085

<b>Sample: YGWC-29I</b>		<b>Lab ID: 266085004</b>		Collected: 06/11/18 14:10	Received: 06/14/18 09:00	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
<b>6020B MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Arsenic	ND	mg/L	0.0050	0.00057	1	06/20/18 15:24	06/26/18 17:01	7440-38-2		
Barium	<b>0.068</b>	mg/L	0.010	0.00078	1	06/20/18 15:24	06/26/18 17:01	7440-39-3		
Boron	<b>0.90</b>	mg/L	0.040	0.0039	1	06/20/18 15:24	06/26/18 17:01	7440-42-8		
Calcium	<b>12.1</b>	mg/L	5.0	0.14	10	06/20/18 15:24	06/26/18 17:07	7440-70-2		
Cobalt	ND	mg/L	0.010	0.00052	1	06/20/18 15:24	06/26/18 17:01	7440-48-4		
Lithium	<b>0.0064J</b>	mg/L	0.050	0.00097	1	06/20/18 15:24	06/26/18 17:01	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.0019	1	06/20/18 15:24	06/26/18 17:01	7439-98-7		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C								
Total Dissolved Solids	<b>156</b>	mg/L	25.0	10.0	1		06/15/18 11:54			
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0								
Chloride	<b>13.6</b>	mg/L	0.25	0.024	1		06/27/18 21:24	16887-00-6		
Fluoride	ND	mg/L	0.30	0.029	1		06/27/18 21:24	16984-48-8		
Sulfate	<b>30.6</b>	mg/L	1.0	0.017	1		06/27/18 21:24	14808-79-8		

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### ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds 2

Pace Project No.: 266085

<b>Sample: YGWC-28S</b>		<b>Lab ID: 266085005</b>		Collected: 06/12/18 12:20	Received: 06/14/18 09:00	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
<b>6020B MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Arsenic	<b>0.00075J</b>	mg/L	0.0050	0.00057	1	06/20/18 15:24	06/26/18 17:12	7440-38-2		
Barium	<b>0.21</b>	mg/L	0.010	0.00078	1	06/20/18 15:24	06/26/18 17:12	7440-39-3		
Boron	<b>2.9</b>	mg/L	0.040	0.0039	1	06/20/18 15:24	06/26/18 17:12	7440-42-8		
Calcium	<b>26.4</b>	mg/L	5.0	0.14	10	06/20/18 15:24	06/26/18 17:18	7440-70-2		
Cobalt	<b>0.0011J</b>	mg/L	0.010	0.00052	1	06/20/18 15:24	06/26/18 17:12	7440-48-4		
Lithium	ND	mg/L	0.050	0.00097	1	06/20/18 15:24	06/26/18 17:12	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.0019	1	06/20/18 15:24	06/26/18 17:12	7439-98-7		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C								
Total Dissolved Solids	<b>243</b>	mg/L	25.0	10.0	1		06/15/18 11:54			
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0								
Chloride	<b>19.3</b>	mg/L	0.25	0.024	1		06/28/18 01:12	16887-00-6		
Fluoride	<b>0.13J</b>	mg/L	0.30	0.029	1		06/28/18 01:12	16984-48-8		
Sulfate	<b>2.9</b>	mg/L	1.0	0.017	1		06/28/18 01:12	14808-79-8		

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## ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds 2

Pace Project No.: 266085

Sample: YGWC-28I		Lab ID: 266085006		Collected: 06/12/18 14:00		Received: 06/14/18 09:00		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6020B MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Arsenic	ND	mg/L	0.0050	0.00057	1	06/20/18 15:24	06/26/18 18:03	7440-38-2	
Barium	<b>0.088</b>	mg/L	0.010	0.00078	1	06/20/18 15:24	06/26/18 18:03	7440-39-3	
Boron	<b>2.8</b>	mg/L	0.040	0.0039	1	06/20/18 15:24	06/26/18 18:03	7440-42-8	
Calcium	<b>33.4</b>	mg/L	5.0	0.14	10	06/20/18 15:24	06/26/18 18:08	7440-70-2	
Cobalt	ND	mg/L	0.010	0.00052	1	06/20/18 15:24	06/26/18 18:03	7440-48-4	
Lithium	<b>0.0073J</b>	mg/L	0.050	0.00097	1	06/20/18 15:24	06/26/18 18:03	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	06/20/18 15:24	06/26/18 18:03	7439-98-7	
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C							
Total Dissolved Solids	<b>234</b>	mg/L	25.0	10.0	1		06/15/18 11:54		
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0							
Chloride	<b>17.6</b>	mg/L	0.25	0.024	1		06/28/18 01:35	16887-00-6	M1
Fluoride	ND	mg/L	0.30	0.029	1		06/28/18 01:35	16984-48-8	
Sulfate	<b>8.2</b>	mg/L	1.0	0.017	1		06/28/18 01:35	14808-79-8	

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### ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds 2

Pace Project No.: 266085

<b>Sample: YGWC-27S</b>		<b>Lab ID: 266085007</b>		Collected: 06/12/18 15:00	Received: 06/14/18 09:00	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
<b>6020B MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Arsenic	ND	mg/L	0.0050	0.00057	1	06/20/18 15:24	06/26/18 18:14	7440-38-2		
Barium	<b>0.095</b>	mg/L	0.010	0.00078	1	06/20/18 15:24	06/26/18 18:14	7440-39-3		
Boron	<b>1.6</b>	mg/L	0.040	0.0039	1	06/20/18 15:24	06/26/18 18:14	7440-42-8		
Calcium	<b>36.2</b>	mg/L	5.0	0.14	10	06/20/18 15:24	06/26/18 18:20	7440-70-2		
Cobalt	<b>0.0025J</b>	mg/L	0.010	0.00052	1	06/20/18 15:24	06/26/18 18:14	7440-48-4		
Lithium	ND	mg/L	0.050	0.00097	1	06/20/18 15:24	06/26/18 18:14	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.0019	1	06/20/18 15:24	06/26/18 18:14	7439-98-7		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C								
Total Dissolved Solids	<b>208</b>	mg/L	25.0	10.0	1		06/15/18 11:54			
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0								
Chloride	<b>19.8</b>	mg/L	0.25	0.024	1		06/28/18 02:21	16887-00-6		
Fluoride	<b>0.037J</b>	mg/L	0.30	0.029	1		06/28/18 02:21	16984-48-8		
Sulfate	<b>18.1</b>	mg/L	1.0	0.017	1		06/28/18 02:21	14808-79-8		

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### ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds 2

Pace Project No.: 266085

Sample: <b>EB-2-6-13-18</b>		Lab ID: <b>266085008</b>		Collected: 06/13/18 09:40	Received: 06/14/18 09:00	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
<b>6020B MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Arsenic	ND	mg/L	0.0050	0.00057	1	06/20/18 15:24	06/26/18 18:25	7440-38-2		
Barium	ND	mg/L	0.010	0.00078	1	06/20/18 15:24	06/26/18 18:25	7440-39-3		
Boron	<b>0.0063J</b>	mg/L	0.040	0.0039	1	06/20/18 15:24	06/26/18 18:25	7440-42-8		
Calcium	<b>0.023J</b>	mg/L	0.50	0.014	1	06/20/18 15:24	06/26/18 18:25	7440-70-2		
Cobalt	ND	mg/L	0.010	0.00052	1	06/20/18 15:24	06/26/18 18:25	7440-48-4		
Lithium	ND	mg/L	0.050	0.00097	1	06/20/18 15:24	06/26/18 18:25	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.0019	1	06/20/18 15:24	06/26/18 18:25	7439-98-7		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C								
Total Dissolved Solids	<b>16.0J</b>	mg/L	25.0	10.0	1		06/18/18 11:30			
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0								
Chloride	<b>0.30</b>	mg/L	0.25	0.024	1		07/07/18 05:04	16887-00-6	B	
Fluoride	ND	mg/L	0.30	0.029	1		07/07/18 05:04	16984-48-8		
Sulfate	ND	mg/L	1.0	0.017	1		07/07/18 05:04	14808-79-8		

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### ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds 2  
Pace Project No.: 266085

<b>Sample: YGWC-271</b>		<b>Lab ID: 266085009</b>		Collected: 06/13/18 10:10		Received: 06/14/18 09:00		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6020B MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Arsenic	ND	mg/L	0.0050	0.00057	1	06/20/18 15:24	06/26/18 18:31	7440-38-2	
Barium	<b>0.063</b>	mg/L	0.010	0.00078	1	06/20/18 15:24	06/26/18 18:31	7440-39-3	
Boron	<b>2.2</b>	mg/L	0.040	0.0039	1	06/20/18 15:24	06/26/18 18:31	7440-42-8	
Calcium	<b>29.4</b>	mg/L	5.0	0.14	10	06/20/18 15:24	06/26/18 18:37	7440-70-2	
Cobalt	<b>0.092</b>	mg/L	0.010	0.00052	1	06/20/18 15:24	06/26/18 18:31	7440-48-4	
Lithium	<b>0.014J</b>	mg/L	0.050	0.00097	1	06/20/18 15:24	06/26/18 18:31	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	06/20/18 15:24	06/26/18 18:31	7439-98-7	
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C							
Total Dissolved Solids	<b>219</b>	mg/L	25.0	10.0	1		06/18/18 11:30		
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0							
Chloride	<b>13.1</b>	mg/L	0.25	0.024	1		07/07/18 05:26	16887-00-6	
Fluoride	ND	mg/L	0.30	0.029	1		07/07/18 05:26	16984-48-8	
Sulfate	<b>6.1</b>	mg/L	1.0	0.017	1		07/07/18 05:26	14808-79-8	

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### ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds 2

Pace Project No.: 266085

<b>Sample: FB-2-6-13-18</b>		<b>Lab ID: 266085010</b>		Collected: 06/13/18 11:00	Received: 06/14/18 09:00	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
<b>6020B MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Arsenic	ND	mg/L	0.0050	0.00057	1	06/20/18 15:24	06/26/18 18:43	7440-38-2		
Barium	ND	mg/L	0.010	0.00078	1	06/20/18 15:24	06/26/18 18:43	7440-39-3		
Boron	<b>0.0070J</b>	mg/L	0.040	0.0039	1	06/20/18 15:24	06/26/18 18:43	7440-42-8		
Calcium	ND	mg/L	0.50	0.014	1	06/20/18 15:24	06/26/18 18:43	7440-70-2		
Cobalt	ND	mg/L	0.010	0.00052	1	06/20/18 15:24	06/26/18 18:43	7440-48-4		
Lithium	ND	mg/L	0.050	0.00097	1	06/20/18 15:24	06/26/18 18:43	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.0019	1	06/20/18 15:24	06/26/18 18:43	7439-98-7		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C								
Total Dissolved Solids	<b>19.0J</b>	mg/L	25.0	10.0	1		06/18/18 11:30			
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0								
Chloride	<b>0.27</b>	mg/L	0.25	0.024	1		07/07/18 05:47	16887-00-6	B	
Fluoride	ND	mg/L	0.30	0.029	1		07/07/18 05:47	16984-48-8		
Sulfate	ND	mg/L	1.0	0.017	1		07/07/18 05:47	14808-79-8		

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### ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds 2  
Pace Project No.: 266085

<b>Sample: YGWC-26S</b>		<b>Lab ID: 266085011</b>		Collected: 06/13/18 11:45		Received: 06/14/18 09:00		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6020B MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Arsenic	ND	mg/L	0.0050	0.00057	1	06/20/18 15:24	06/26/18 18:48	7440-38-2	
Barium	<b>0.026</b>	mg/L	0.010	0.00078	1	06/20/18 15:24	06/26/18 18:48	7440-39-3	
Boron	<b>0.67</b>	mg/L	0.040	0.0039	1	06/20/18 15:24	06/26/18 18:48	7440-42-8	
Calcium	<b>12.5</b>	mg/L	5.0	0.14	10	06/20/18 15:24	06/26/18 18:54	7440-70-2	
Cobalt	<b>0.0017J</b>	mg/L	0.010	0.00052	1	06/20/18 15:24	06/26/18 18:48	7440-48-4	
Lithium	ND	mg/L	0.050	0.00097	1	06/20/18 15:24	06/26/18 18:48	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	06/20/18 15:24	06/26/18 18:48	7439-98-7	
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C							
Total Dissolved Solids	<b>196</b>	mg/L	25.0	10.0	1		06/18/18 11:30		
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0							
Chloride	<b>14.2</b>	mg/L	0.25	0.024	1		07/07/18 06:09	16887-00-6	
Fluoride	<b>0.044J</b>	mg/L	0.30	0.029	1		07/07/18 06:09	16984-48-8	
Sulfate	<b>93.3</b>	mg/L	5.0	0.085	5		07/11/18 15:34	14808-79-8	

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## ANALYTICAL RESULTS

Project: Plant Yates Ash Ponds 2  
Pace Project No.: 266085

Sample: YGWC-26I		Lab ID: 266085012		Collected: 06/13/18 12:45		Received: 06/14/18 09:00		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
<b>6020B MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Arsenic	ND	mg/L	0.0050	0.00057	1	06/20/18 15:24	06/26/18 19:11	7440-38-2		
Barium	<b>0.064</b>	mg/L	0.010	0.00078	1	06/20/18 15:24	06/26/18 19:11	7440-39-3		
Boron	<b>0.86</b>	mg/L	0.040	0.0039	1	06/20/18 15:24	07/02/18 13:53	7440-42-8		
Calcium	<b>15.5</b>	mg/L	5.0	0.14	10	06/20/18 15:24	06/26/18 19:17	7440-70-2		
Cobalt	ND	mg/L	0.010	0.00052	1	06/20/18 15:24	06/26/18 19:11	7440-48-4		
Lithium	<b>0.0071J</b>	mg/L	0.050	0.00097	1	06/20/18 15:24	06/26/18 19:11	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.0019	1	06/20/18 15:24	06/26/18 19:11	7439-98-7		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C								
Total Dissolved Solids	<b>228</b>	mg/L	25.0	10.0	1		06/18/18 11:30			
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0								
Chloride	<b>18.1</b>	mg/L	0.25	0.024	1		07/07/18 06:31	16887-00-6		
Fluoride	<b>0.088J</b>	mg/L	0.30	0.029	1		07/07/18 06:31	16984-48-8		
Sulfate	<b>76.5</b>	mg/L	2.0	0.034	2		07/11/18 15:54	14808-79-8		

## REPORT OF LABORATORY ANALYSIS

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**QUALITY CONTROL DATA**

Project: Plant Yates Ash Ponds 2

Pace Project No.: 266085

QC Batch:	8416	Analysis Method:	EPA 6020B
QC Batch Method:	EPA 3005A	Analysis Description:	6020B MET
Associated Lab Samples:	266085001, 266085002, 266085003, 266085004, 266085005, 266085006, 266085007, 266085008, 266085009, 266085010, 266085011, 266085012		

METHOD BLANK:	38827	Matrix:	Water
Associated Lab Samples:	266085001, 266085002, 266085003, 266085004, 266085005, 266085006, 266085007, 266085008, 266085009, 266085010, 266085011, 266085012		

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic	mg/L	ND	0.0050	0.00057	06/26/18 13:40	
Barium	mg/L	ND	0.010	0.00078	06/26/18 13:40	
Boron	mg/L	ND	0.040	0.0039	06/26/18 13:40	
Calcium	mg/L	ND	0.50	0.014	06/26/18 13:40	
Cobalt	mg/L	ND	0.010	0.00052	06/26/18 13:40	
Lithium	mg/L	ND	0.050	0.00097	06/26/18 13:40	
Molybdenum	mg/L	ND	0.010	0.0019	06/26/18 13:40	

LABORATORY CONTROL SAMPLE: 38828

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/L	.1	0.10	101	80-120	
Barium	mg/L	.1	0.098	98	80-120	
Boron	mg/L	1	1.1	110	80-120	
Calcium	mg/L	1	1.0	102	80-120	
Cobalt	mg/L	.1	0.10	105	80-120	
Lithium	mg/L	.1	0.11	106	80-120	
Molybdenum	mg/L	.1	0.10	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 38879 38880

Parameter	Units	266085001 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	MS Spike Conc.	MS Result	MSD Result						
Arsenic	mg/L	0.0013J	.1	.1	0.10	0.11	103	104	75-125	1	20	
Barium	mg/L	0.21	.1	.1	0.31	0.33	103	117	75-125	4	20	
Boron	mg/L	2.8	1	1	3.7	3.9	97	117	75-125	5	20	
Calcium	mg/L	27.1	1	1	28.2	29.4	108	227	75-125	4	20	M6
Cobalt	mg/L	0.0011J	.1	.1	0.11	0.11	106	111	75-125	4	20	
Lithium	mg/L	ND	.1	.1	0.10	0.10	101	104	75-125	3	20	
Molybdenum	mg/L	ND	.1	.1	0.11	0.11	106	109	75-125	2	20	

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### QUALITY CONTROL DATA

Project: Plant Yates Ash Ponds 2  
Pace Project No.: 266085

QC Batch: 8057 Analysis Method: SM 2540C  
QC Batch Method: SM 2540C Analysis Description: 2540C Total Dissolved Solids  
Associated Lab Samples: 266085001, 266085002, 266085003, 266085004, 266085005, 266085006, 266085007

LABORATORY CONTROL SAMPLE: 37405

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

SAMPLE DUPLICATE: 37406

Parameter	Units	266085002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	10.0J	ND		10	

SAMPLE DUPLICATE: 37407

Parameter	Units	266089006 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	13.0J	13.0J	0	10	

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### QUALITY CONTROL DATA

Project: Plant Yates Ash Ponds 2  
Pace Project No.: 266085

QC Batch: 8816 Analysis Method: EPA 300.0  
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions  
Associated Lab Samples: 266085001, 266085002, 266085003, 266085004, 266085005, 266085006, 266085007

METHOD BLANK: 40405 Matrix: Water  
Associated Lab Samples: 266085001, 266085002, 266085003, 266085004, 266085005, 266085006, 266085007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	0.42	0.25	0.024	06/27/18 18:44	
Fluoride	mg/L	ND	0.30	0.029	06/27/18 18:44	
Sulfate	mg/L	ND	1.0	0.017	06/27/18 18:44	

LABORATORY CONTROL SAMPLE: 40406

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	10	9.2	92	90-110	
Fluoride	mg/L	10	10.5	105	90-110	
Sulfate	mg/L	10	9.3	93	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 40407 40408

Parameter	Units	266085003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	2.0	10	10	11.4	11.5	94	95	90-110	1	15	
Fluoride	mg/L	ND	10	10	11.1	11.2	111	112	90-110	1	15	M1
Sulfate	mg/L	1.1	10	10	10.9	11.0	98	99	90-110	1	15	

MATRIX SPIKE SAMPLE: 40409

Parameter	Units	266085006 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	17.6	10	25.1	76	90-110	M1
Fluoride	mg/L	ND	10	11.0	110	90-110	
Sulfate	mg/L	8.2	10	17.3	91	90-110	

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### QUALITY CONTROL DATA

Project: Plant Yates Ash Ponds 2  
Pace Project No.: 266085

QC Batch: 9362 Analysis Method: EPA 300.0  
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions  
Associated Lab Samples: 266085008, 266085009, 266085010, 266085011, 266085012

METHOD BLANK: 42594 Matrix: Water  
Associated Lab Samples: 266085008, 266085009, 266085010, 266085011, 266085012

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	0.41	0.25	0.024	07/07/18 02:32	
Fluoride	mg/L	ND	0.30	0.029	07/07/18 02:32	
Sulfate	mg/L	ND	1.0	0.017	07/07/18 02:32	

LABORATORY CONTROL SAMPLE: 42595

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	10	9.9	99	90-110	
Fluoride	mg/L	10	10.2	102	90-110	
Sulfate	mg/L	10	9.7	97	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 42596 42597

Parameter	Units	266698001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	1910	10	10	108	318	-18000	-15900	90-110	98	15	E,M1, R2
Fluoride	mg/L	0.12J	10	10	10.2	10.2	100	101	90-110	1	15	
Sulfate	mg/L	352	10	10	222	222	-1290	-1290	90-110	0	15	E,M1

MATRIX SPIKE SAMPLE: 42598

Parameter	Units	266701006 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	4010	10	768	-32500	90-110	E
Fluoride	mg/L	0.12J	10	9.3	92	90-110	
Sulfate	mg/L	741	10	355	-3860	90-110	E

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds 2

Pace Project No.: 266085

**Sample: Dup-2**      **Lab ID: 266085001**      Collected: 06/12/18 00:00      Received: 06/14/18 09:00      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	<b>0.479 ± 0.284 (0.439)</b> C:91% T:NA	pCi/L	07/03/18 08:20	13982-63-3	
Radium-228	EPA 9320	<b>-0.511 ± 0.450 (1.17)</b> C:73% T:82%	pCi/L	07/11/18 19:07	15262-20-1	
Total Radium	Total Radium Calculation	<b>0.479 ± 0.734 (1.61)</b>	pCi/L	07/12/18 11:24	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds 2

Pace Project No.: 266085

**Sample: EB-1-6-11-18**      **Lab ID: 266085002**      Collected: 06/11/18 11:40      Received: 06/14/18 09:00      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	<b>0.191 ± 0.221 (0.454)</b> C:86% T:NA	pCi/L	07/03/18 08:20	13982-63-3	
Radium-228	EPA 9320	<b>0.839 ± 0.598 (1.14)</b> C:70% T:78%	pCi/L	07/11/18 19:08	15262-20-1	
Total Radium	Total Radium Calculation	<b>1.03 ± 0.819 (1.59)</b>	pCi/L	07/12/18 11:24	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds 2

Pace Project No.: 266085

**Sample: YGWA-30I**      **Lab ID: 266085003**      Collected: 06/11/18 12:00      Received: 06/14/18 09:00      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	<b>0.513 ± 0.323 (0.548)</b> C:92% T:NA	pCi/L	07/03/18 08:21	13982-63-3	
Radium-228	EPA 9320	<b>0.0947 ± 0.492 (1.13)</b> C:75% T:79%	pCi/L	07/11/18 19:08	15262-20-1	
Total Radium	Total Radium Calculation	<b>0.608 ± 0.815 (1.68)</b>	pCi/L	07/12/18 11:24	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds 2

Pace Project No.: 266085

**Sample: YGWC-291**      **Lab ID: 266085004**      Collected: 06/11/18 14:10      Received: 06/14/18 09:00      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	<b>0.621 ± 0.331 (0.503)</b> C:98% T:NA	pCi/L	07/03/18 08:21	13982-63-3	
Radium-228	EPA 9320	<b>0.645 ± 0.577 (1.19)</b> C:74% T:77%	pCi/L	07/11/18 16:09	15262-20-1	
Total Radium	Total Radium Calculation	<b>1.27 ± 0.908 (1.69)</b>	pCi/L	07/12/18 11:24	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds 2

Pace Project No.: 266085

**Sample: YGWC-28S**      **Lab ID: 266085005**      Collected: 06/12/18 12:20      Received: 06/14/18 09:00      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	<b>0.179 ± 0.249 (0.543)</b> C:95% T:NA	pCi/L	07/03/18 09:56	13982-63-3	
Radium-228	EPA 9320	<b>0.842 ± 0.526 (1.00)</b> C:74% T:78%	pCi/L	07/11/18 16:09	15262-20-1	
Total Radium	Total Radium Calculation	<b>1.02 ± 0.775 (1.54)</b>	pCi/L	07/12/18 11:24	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds 2

Pace Project No.: 266085

**Sample: YGWC-28I**      **Lab ID: 266085006**      Collected: 06/12/18 14:00      Received: 06/14/18 09:00      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	<b>0.0799 ± 0.170 (0.399)</b> C:81% T:NA	pCi/L	07/03/18 09:56	13982-63-3	
Radium-228	EPA 9320	<b>0.789 ± 0.495 (0.947)</b> C:78% T:81%	pCi/L	07/11/18 16:09	15262-20-1	
Total Radium	Total Radium Calculation	<b>0.869 ± 0.665 (1.35)</b>	pCi/L	07/13/18 09:58	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds 2

Pace Project No.: 266085

**Sample: YGWC-27S**      **Lab ID: 266085007**      Collected: 06/12/18 15:00      Received: 06/14/18 09:00      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	<b>0.326 ± 0.257 (0.458)</b> C:89% T:NA	pCi/L	07/03/18 09:56	13982-63-3	
Radium-228	EPA 9320	<b>0.340 ± 0.627 (1.37)</b> C:73% T:71%	pCi/L	07/11/18 16:09	15262-20-1	
Total Radium	Total Radium Calculation	<b>0.666 ± 0.884 (1.83)</b>	pCi/L	07/13/18 09:58	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds 2

Pace Project No.: 266085

**Sample: EB-2-6-13-18**      **Lab ID: 266085008**      Collected: 06/13/18 09:40      Received: 06/14/18 09:00      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	<b>0.187 ± 0.209 (0.417)</b> <b>C:84% T:NA</b>	pCi/L	07/03/18 09:56	13982-63-3	
Radium-228	EPA 9320	<b>-0.0754 ± 0.431 (1.00)</b> <b>C:74% T:88%</b>	pCi/L	07/11/18 16:09	15262-20-1	
Total Radium	Total Radium Calculation	<b>0.187 ± 0.640 (1.42)</b>	pCi/L	07/13/18 09:58	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds 2

Pace Project No.: 266085

**Sample: YGWC-271**      **Lab ID: 266085009**      Collected: 06/13/18 10:10      Received: 06/14/18 09:00      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	<b>2.70 ± 0.690 (0.380)</b> C:96% T:NA	pCi/L	07/03/18 09:56	13982-63-3	
Radium-228	EPA 9320	<b>0.986 ± 0.645 (1.26)</b> C:71% T:79%	pCi/L	07/11/18 16:09	15262-20-1	
Total Radium	Total Radium Calculation	<b>3.69 ± 1.34 (1.64)</b>	pCi/L	07/13/18 09:58	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds 2

Pace Project No.: 266085

**Sample: FB-2-6-13-18**      **Lab ID: 266085010**      Collected: 06/13/18 11:00      Received: 06/14/18 09:00      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	<b>0.309 ± 0.229 (0.371)</b> C:87% T:NA	pCi/L	07/03/18 09:56	13982-63-3	
Radium-228	EPA 9320	<b>0.0178 ± 0.338 (0.780)</b> C:80% T:80%	pCi/L	07/12/18 15:06	15262-20-1	
Total Radium	Total Radium Calculation	<b>0.327 ± 0.567 (1.15)</b>	pCi/L	07/13/18 09:58	7440-14-4	

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**ANALYTICAL RESULTS - RADIOCHEMISTRY**

Project: Plant Yates Ash Ponds 2

Pace Project No.: 266085

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	<b>0.0776 ± 0.184 (0.437)</b> C:86% T:NA	pCi/L	07/03/18 09:57	13982-63-3	
Radium-228	EPA 9320	<b>1.01 ± 0.476 (0.804)</b> C:77% T:79%	pCi/L	07/12/18 15:06	15262-20-1	
Total Radium	Total Radium Calculation	<b>1.09 ± 0.660 (1.24)</b>	pCi/L	07/13/18 09:58	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds 2

Pace Project No.: 266085

**Sample: YGWC-261**      **Lab ID: 266085012**      Collected: 06/13/18 12:45      Received: 06/14/18 09:00      Matrix: Water  
PWS:      Site ID:      Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	<b>0.339 ± 0.271 (0.489)</b> C:86% T:NA	pCi/L	07/03/18 09:57	13982-63-3	
Radium-228	EPA 9320	<b>0.0878 ± 0.402 (0.915)</b> C:78% T:66%	pCi/L	07/12/18 15:06	15262-20-1	
Total Radium	Total Radium Calculation	<b>0.427 ± 0.673 (1.40)</b>	pCi/L	07/13/18 09:58	7440-14-4	

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds 2

Pace Project No.: 266085

QC Batch: 302924

Analysis Method: EPA 9320

QC Batch Method: EPA 9320

Analysis Description: 9320 Radium 228

Associated Lab Samples: 266085010, 266085011, 266085012

METHOD BLANK: 1482129

Matrix: Water

Associated Lab Samples: 266085010, 266085011, 266085012

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.0380 ± 0.331 (0.764) C:76% T:78%	pCi/L	07/12/18 15:05	

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds 2

Pace Project No.: 266085

QC Batch: 302917

Analysis Method: EPA 9315

QC Batch Method: EPA 9315

Analysis Description: 9315 Total Radium

Associated Lab Samples: 266085001, 266085002, 266085003, 266085004, 266085005, 266085006, 266085007, 266085008, 266085009, 266085010, 266085011, 266085012

METHOD BLANK: 1482111

Matrix: Water

Associated Lab Samples: 266085001, 266085002, 266085003, 266085004, 266085005, 266085006, 266085007, 266085008, 266085009, 266085010, 266085011, 266085012

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.338 ± 0.240 (0.382) C:97% T:NA	pCi/L	07/03/18 08:19	

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Yates Ash Ponds 2

Pace Project No.: 266085

---

QC Batch:	302923	Analysis Method:	EPA 9320
QC Batch Method:	EPA 9320	Analysis Description:	9320 Radium 228
Associated Lab Samples:	266085001, 266085002, 266085003, 266085004, 266085005, 266085006, 266085007, 266085008, 266085009		

---

METHOD BLANK:	1482128	Matrix:	Water
Associated Lab Samples:	266085001, 266085002, 266085003, 266085004, 266085005, 266085006, 266085007, 266085008, 266085009		

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.542 ± 0.336 (0.602) C:79% T:77%	pCi/L	07/11/18 16:05	

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## QUALIFIERS

Project: Plant Yates Ash Ponds 2

Pace Project No.: 266085

---

### 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-GA Pace Analytical Services - Atlanta, GA

PASI-PA Pace Analytical Services - Greensburg

### ANALYTE QUALIFIERS

B Analyte was detected in the associated method blank.

E Analyte concentration exceeded the calibration range. The reported result is estimated.

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

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

R2 RPD value was outside control limits due to matrix interference

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Yates Ash Ponds 2  
Pace Project No.: 266085

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
266085001	Dup-2	EPA 3005A	8416	EPA 6020B	8751
266085002	EB-1-6-11-18	EPA 3005A	8416	EPA 6020B	8751
266085003	YGWA-30I	EPA 3005A	8416	EPA 6020B	8751
266085004	YGWC-29I	EPA 3005A	8416	EPA 6020B	8751
266085005	YGWC-28S	EPA 3005A	8416	EPA 6020B	8751
266085006	YGWC-28I	EPA 3005A	8416	EPA 6020B	8751
266085007	YGWC-27S	EPA 3005A	8416	EPA 6020B	8751
266085008	EB-2-6-13-18	EPA 3005A	8416	EPA 6020B	8751
266085009	YGWC-27I	EPA 3005A	8416	EPA 6020B	8751
266085010	FB-2-6-13-18	EPA 3005A	8416	EPA 6020B	8751
266085011	YGWC-26S	EPA 3005A	8416	EPA 6020B	8751
266085012	YGWC-26I	EPA 3005A	8416	EPA 6020B	8751
266085001	Dup-2	EPA 9315	302917		
266085002	EB-1-6-11-18	EPA 9315	302917		
266085003	YGWA-30I	EPA 9315	302917		
266085004	YGWC-29I	EPA 9315	302917		
266085005	YGWC-28S	EPA 9315	302917		
266085006	YGWC-28I	EPA 9315	302917		
266085007	YGWC-27S	EPA 9315	302917		
266085008	EB-2-6-13-18	EPA 9315	302917		
266085009	YGWC-27I	EPA 9315	302917		
266085010	FB-2-6-13-18	EPA 9315	302917		
266085011	YGWC-26S	EPA 9315	302917		
266085012	YGWC-26I	EPA 9315	302917		
266085001	Dup-2	EPA 9320	302923		
266085002	EB-1-6-11-18	EPA 9320	302923		
266085003	YGWA-30I	EPA 9320	302923		
266085004	YGWC-29I	EPA 9320	302923		
266085005	YGWC-28S	EPA 9320	302923		
266085006	YGWC-28I	EPA 9320	302923		
266085007	YGWC-27S	EPA 9320	302923		
266085008	EB-2-6-13-18	EPA 9320	302923		
266085009	YGWC-27I	EPA 9320	302923		
266085010	FB-2-6-13-18	EPA 9320	302924		
266085011	YGWC-26S	EPA 9320	302924		
266085012	YGWC-26I	EPA 9320	302924		
266085001	Dup-2	Total Radium Calculation	305528		
266085002	EB-1-6-11-18	Total Radium Calculation	305528		
266085003	YGWA-30I	Total Radium Calculation	305528		
266085004	YGWC-29I	Total Radium Calculation	305528		
266085005	YGWC-28S	Total Radium Calculation	305528		
266085006	YGWC-28I	Total Radium Calculation	305683		
266085007	YGWC-27S	Total Radium Calculation	305683		
266085008	EB-2-6-13-18	Total Radium Calculation	305683		
266085009	YGWC-27I	Total Radium Calculation	305683		
266085010	FB-2-6-13-18	Total Radium Calculation	305683		

### REPORT OF LABORATORY ANALYSIS

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**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: Plant Yates Ash Ponds 2  
Pace Project No.: 266085

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
266085011	YGWC-26S	Total Radium Calculation	305683		
266085012	YGWC-26I	Total Radium Calculation	305683		
266085001	Dup-2	SM 2540C	8057		
266085002	EB-1-6-11-18	SM 2540C	8057		
266085003	YGWA-30I	SM 2540C	8057		
266085004	YGWC-29I	SM 2540C	8057		
266085005	YGWC-28S	SM 2540C	8057		
266085006	YGWC-28I	SM 2540C	8057		
266085007	YGWC-27S	SM 2540C	8057		
266085008	EB-2-6-13-18	SM 2540C	8153		
266085009	YGWC-27I	SM 2540C	8153		
266085010	FB-2-6-13-18	SM 2540C	8153		
266085011	YGWC-26S	SM 2540C	8153		
266085012	YGWC-26I	SM 2540C	8153		
266085001	Dup-2	EPA 300.0	8816		
266085002	EB-1-6-11-18	EPA 300.0	8816		
266085003	YGWA-30I	EPA 300.0	8816		
266085004	YGWC-29I	EPA 300.0	8816		
266085005	YGWC-28S	EPA 300.0	8816		
266085006	YGWC-28I	EPA 300.0	8816		
266085007	YGWC-27S	EPA 300.0	8816		
266085008	EB-2-6-13-18	EPA 300.0	9362		
266085009	YGWC-27I	EPA 300.0	9362		
266085010	FB-2-6-13-18	EPA 300.0	9362		
266085011	YGWC-26S	EPA 300.0	9362		
266085012	YGWC-26I	EPA 300.0	9362		

**REPORT OF LABORATORY ANALYSIS**

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

**CHAIN OF CUSTODY RECORD**

PAGE: 1 OF 1

CLIENT NAME: Georgia Power  
 CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER:  
 241 Ralph McGill Blvd SE 810185  
 Atlanta, GA 30308  
 404-506-7239  
 REPORT TO: Joju Abraham / Lauren Petty  
 CC: Maria Padilla  
 Health McCorliffe  
 REQUESTED COMPLETION DATE: PO #: SCS10348606  
 PROJECT NAME/STATE: Plant Yates - Ash Pond 2

CONTAINER TYPE	PRESERVATION	ANALYSIS REQUESTED			CONTAINER TYPE	PRESERVATION
		P	P	P		
3		3	7	3		
# of						
<b>C O N T A I N E R S</b>						
		Metals App. III, plus detected App. IV* (EPA 6020/7470)	Cl, F, SO <sub>4</sub> & TDS (EPA 300.0 & SM 2540C)	Radium 226 & 228 (SW-846 9315/9320)		

Collection DATE	Collection TIME	MATRIX CODE*	C O M P	G R A B	SAMPLE IDENTIFICATION
6-12-18		GW	X	X	Dup-2
6-11-18	1148	W	X	X	EB-1-6-11-18
6-11-18	1200	GW	X	X	YGWA-30I
6-11-18	1410	GW	X	X	YGWC-29I
6-12-18	1220	GW	X	X	YGWC-28S
6-12-18	1400	GW	X	X	YGWC-28I
6-12-18	1500	GW	X	X	YGWC-27S
6-13-18	0940	GW	X	X	EB-2-6-13-18
6-13-18	1010	GW	X	X	YGWC-27I
6-13-18	1100	W	X	X	FB-2-6-13-18
6-13-18	1145	GW	X	X	YGWC-26S
6-13-18	1245	GW	X	X	YGWC-26I

SAMPLED BY AND TITLE: Jordan Beardsley ACC  
 RECEIVED BY: [Signature]  
 DATE/TIME: 6-13-18 1245  
 DATE/TIME: 6/14/18 0900  
 RECEIVED BY LAB: [Signature]  
 TEMPERATURE: [Signature]  
 NO. OF COPIES: 3

**NO#: 266085**

RELINQUISHED BY: Robert M Fiere  
 DATE/TIME: 6/19/18  
 RELINQUISHED BY: [Signature]  
 DATE/TIME: [Signature]  
 SAMPLE SHIPPED VIA: UPS  
 COURIER: Robert M Fiere  
 FEDEX: [Signature]  
 USPS: [Signature]  
 OTHER: FS  
 COPIES: 3

CLIENT NAME: Georgia Power  
 CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER:  
 241 Ralph McGill Blvd SE 810185  
 Atlanta, GA 30308  
 404-506-7239  
 REPORT TO: Joju Abraham / Lauren Petty  
 CC: Maria Padilla  
 Health McCorliffe  
 REQUESTED COMPLETION DATE: PO #: SCS10348606  
 PROJECT NAME/STATE: Plant Yates - Ash Pond 2

\*APP III and detected APP IV metals (As, Ba, Co, F, Li, Mo, and Ra)

**Sample Condition Upon Receipt**



Client Name: GIA Power

Project # \_\_\_\_\_

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

**WO#: 266085**

PN: **BM** Due Date: **07/13/18**  
CLIENT: **GAPower-CCR**

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

Packing Material:  Bubble Wrap  Bubble Bags  None  Other \_\_\_\_\_

Thermometer Used 33 Type of Ice:  Wet  Blue  None  Samples on ice, cooling process has begun

Cooler Temperature 5.3 Biological Tissue is Frozen: Yes No  
Temp should be above freezing to 6°C

Date and Initials of person examining contents: 6/14/18 MK

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

**Client Notification/ Resolution:**

Field Data Required? Y N

Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Comments/ Resolution: \_\_\_\_\_

**Project Manager Review:**

Date: \_\_\_\_\_

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

Product Name: Low-Flow System

Date: 2018-06-06 11:32:06

Project Information:

Operator Name J Berisford  
Company Name Atlantic Coast Consulting  
Project Name Plant Yates- Phase 1 CCR  
Site Name Plant Yates  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 573204  
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED Bladder  
Tubing Type poly  
Tubing Diameter .375 in  
Tubing Length 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 36.30 ft

Pumping Information:

Final Pumping Rate 75 mL/min  
Total System Volume 1.679525 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 25.2 in  
Total Volume Pumped 4.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 10
Last 5	11:10:04	2401.01	18.46	6.37	72.22	0.94	38.40	2.83	51.49
Last 5	11:15:04	2701.01	18.51	6.27	64.21	0.82	38.40	3.15	60.85
Last 5	11:20:04	3001.01	18.42	6.21	59.79	0.76	38.40	3.35	66.60
Last 5	11:25:04	3301.00	18.50	6.18	58.71	0.75	38.40	3.47	68.45
Last 5	11:30:04	3601.00	18.71	6.17	58.13	0.84	38.40	3.55	69.75
Variance 0			-0.09	-0.06	-4.41			0.20	5.75
Variance 1			0.08	-0.03	-1.08			0.12	1.85
Variance 2			0.21	-0.01	-0.59			0.08	1.30

Notes

Sunny, sample time-1130

Grab Samples

Product Name: Low-Flow System

Date: 2018-06-05 14:20:59

Project Information:

Operator Name J Berisford  
Company Name Atlantic Coast Consulting  
Project Name Plant Arkwright - Ash Pond 2  
Site Name Plant Yates  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 573204  
Turbidity Make/Model Hach 2100 Q

Pump Information:

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

Pump placement from TOC 79 ft

Well Information:

Well ID YGWA-1D  
Well diameter 2 in  
Well Total Depth 128.60 ft  
Screen Length 50 ft  
Depth to Water 49.78 ft

Pumping Information:

Final Pumping Rate 100 mL/min  
Total System Volume 2.309366 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 1.4 in  
Total Volume Pumped 3.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 10		+/- 10%	+/- 10
Last 5	14:00:01	900.02	18.86	7.18	166.11	1.20	49.90	0.49	-41.58
Last 5	14:05:01	1200.02	18.85	7.18	166.08	1.73	49.90	0.38	-49.07
Last 5	14:10:01	1500.03	19.24	7.17	165.46	1.52	49.90	0.28	-56.44
Last 5	14:15:02	1801.04	19.70	7.17	165.02	0.85	49.90	0.22	-63.71
Last 5	14:20:02	2101.03	19.80	7.16	163.06	0.87	49.90	0.19	-68.42
Variance 0			0.38	-0.01	-0.62			-0.11	-7.37
Variance 1			0.46	-0.01	-0.44			-0.06	-7.28
Variance 2			0.10	-0.00	-1.96			-0.03	-4.71

Notes

Sunny, sample time-1420

Grab Samples

Product Name: Low-Flow System

Date: 2018-06-07 13:08:13

Project Information:

Operator Name J Berisford  
Company Name Atlantic Coast Consulting  
Project Name Plant Yates- Phase 1 CCR  
Site Name Ash Pond 2  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 573204  
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED Bladder  
Tubing Type poly  
Tubing Diameter .375 in  
Tubing Length 65 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 44.22 ft

Pumping Information:

Final Pumping Rate 60 mL/min  
Total System Volume 1.896712 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 38.1 in  
Total Volume Pumped 3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 10
Last 5	12:45:08	1800.01	21.26	7.31	220.35	0.71	46.90	0.52	-83.13
Last 5	12:50:08	2100.02	22.81	7.30	223.87	0.44	47.20	0.53	-90.36
Last 5	12:55:09	2401.02	24.70	7.29	223.15	0.99	47.30	0.50	-95.29
Last 5	13:00:09	2701.01	25.73	7.29	222.32	0.63	47.40	0.49	-97.44
Last 5	13:05:09	3001.00	26.13	7.29	221.19	0.77	47.40	0.49	-96.86
Variance 0			1.88	-0.01	-0.72			-0.03	-4.92
Variance 1			1.03	-0.00	-0.83			-0.01	-2.16
Variance 2			0.41	-0.00	-1.14			0.00	0.59

Notes

Sunny, sample time- 1305, FB-1-6-7-2018 here at 1230

Grab Samples

Product Name: Low-Flow System

Date: 2018-06-08 10:06:42

Project Information:

Operator Name J Berisford  
Company Name Atlantic Coast Consulting  
Project Name Plant Yates- Phase 1 CCR  
Site Name Ash Pond 2  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 573204  
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED Bladder  
Tubing Type poly  
Tubing Diameter .375 in  
Tubing Length 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 53.55 ft

Pumping Information:

Final Pumping Rate 170 mL/min  
Total System Volume 1.788119 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 0 in  
Total Volume Pumped 11.9 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 10
Last 5	09:45:56	3000.01	19.35	7.62	211.96	0.47	--	0.62	-97.97
Last 5	09:50:56	3300.01	19.54	7.64	209.43	0.21	--	0.56	-104.07
Last 5	09:55:56	3600.02	19.84	7.64	206.13	0.28	--	0.52	-108.32
Last 5	10:00:56	3900.01	19.71	7.64	206.81	0.27	--	0.49	-108.47
Last 5	10:05:56	4200.02	19.80	7.64	205.09	0.20	--	0.45	-110.83
Variance 0			0.31	0.01	-3.30			-0.04	-4.24
Variance 1			-0.13	-0.00	0.68			-0.04	-0.15
Variance 2			0.09	0.00	-1.72			-0.04	-2.36

Notes

Sunny, sample time- 1005, wl below top of pump.

Grab Samples

Product Name: Low-Flow System

Date: 2018-06-07 14:36:33

Project Information:

Operator Name J Berisford  
Company Name Atlantic Coast Consulting  
Project Name Plant Yates- Phase 1 CCR  
Site Name Ash Pond 2  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 573204  
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED Bladder  
Tubing Type poly  
Tubing Diameter .375 in  
Tubing Length 92 ft

Pump placement from TOC 87 ft

Well Information:

Well ID YGWA-3D  
Well diameter 2 in  
Well Total Depth 137.12 ft  
Screen Length 50 ft  
Depth to Water 32.12 ft

Pumping Information:

Final Pumping Rate 100 mL/min  
Total System Volume 2.483115 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 14.2 in  
Total Volume Pumped 3.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 10
Last 5	14:15:16	900.03	23.91	7.45	228.17	0.56	33.30	1.58	-63.63
Last 5	14:20:16	1200.03	24.14	7.60	228.65	0.48	33.30	1.26	-74.89
Last 5	14:25:16	1500.03	23.98	7.66	227.65	0.50	33.30	1.15	-81.51
Last 5	14:30:16	1800.03	23.33	7.68	227.70	0.44	33.30	1.18	-85.09
Last 5	14:35:16	2100.03	23.37	7.69	229.05	0.49	33.30	1.13	-91.51
Variance 0			-0.16	0.05	-0.99			-0.11	-6.62
Variance 1			-0.65	0.02	0.04			0.04	-3.58
Variance 2			0.04	0.01	1.35			-0.05	-6.42

Notes

Sunny, sample time-1435

Grab Samples

Product Name: Low-Flow System

Date: 2018-06-08 11:26:00

Project Information:

Operator Name J Berisford  
Company Name Atlantic Coast Consulting  
Project Name Plant Yates- Phase 1 CCR  
Site Name Ash Pond 2  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 573204  
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED Bladder  
Tubing Type poly  
Tubing Diameter .375 in  
Tubing Length 35 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 17.57 ft

Pumping Information:

Final Pumping Rate 200 mL/min  
Total System Volume 1.245153 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 4 in  
Total Volume Pumped 6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 10
Last 5	11:05:07	600.04	22.71	5.48	58.66	0.74	17.90	6.93	149.01
Last 5	11:10:07	900.03	22.55	5.46	58.45	0.41	17.90	6.74	149.49
Last 5	11:15:07	1200.04	22.58	5.45	58.21	0.22	17.90	6.67	150.32
Last 5	11:20:07	1500.03	22.67	5.45	58.26	0.29	17.90	6.58	151.29
Last 5	11:25:08	1801.03	22.48	5.45	58.25	0.35	17.90	6.60	151.98
Variance 0			0.04	-0.00	-0.24			-0.07	0.82
Variance 1			0.08	-0.00	0.05			-0.09	0.97
Variance 2			-0.19	-0.00	-0.01			0.02	0.69

Notes

Sunny, sample time-1125,Dup-1 here

Grab Samples

Product Name: Low-Flow System

Date: 2018-06-11 12:02:17

Project Information:

Operator Name J Berisford  
Company Name Atlantic Coast Consulting  
Project Name Plant Yates- Phase 1 CCR  
Site Name Plant Yates  
Latitude 33° 27' 39.74"  
Longitude -84° -54' -27.69"  
Sonde SN 573204  
Turbidity Make/Model Hach 2100Q

Pump Information:

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

Pump placement from TOC 55 ft

Well Information:

Well ID YGWA-30I  
Well diameter 2 in  
Well Total Depth 59.65 ft  
Screen Length 10 ft  
Depth to Water 36.43 ft

Pumping Information:

Final Pumping Rate 170 mL/min  
Total System Volume 1.788119 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 2 in  
Total Volume Pumped 5.95 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 10
Last 5	11:35:15	600.03	22.38	5.72	38.36	0.85	36.60	6.65	166.38
Last 5	11:40:15	900.02	22.97	5.68	38.22	0.41	36.60	6.76	163.91
Last 5	11:50:18	1503.03	23.32	5.68	38.00	0.44	36.60	6.73	152.40
Last 5	11:55:18	1803.02	22.52	5.69	37.69	0.51	36.60	6.66	145.54
Last 5	12:00:18	2103.02	22.79	5.69	37.95	0.28	36.60	6.70	147.30
Variance 0			0.35	-0.00	-0.22			-0.04	-11.51
Variance 1			-0.79	0.01	-0.31			-0.07	-6.85
Variance 2			0.27	-0.00	0.26			0.04	1.76

Notes

Sunny, sample time- 1200, EB-1-6-11-18 here at 1140

Grab Samples

Product Name: Low-Flow System

Date: 2018-06-13 11:46:42

Project Information:

Operator Name J Berisford  
Company Name Atlantic Coast Consulting  
Project Name Plant Yates- Phase 1 CCR  
Site Name Ash Pond 2  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 573204  
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED Bladder  
Tubing Type poly  
Tubing Diameter .375 in  
Tubing Length 40 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 19.26 ft

Pumping Information:

Final Pumping Rate 100 mL/min  
Total System Volume 1.353746 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 14.8 in  
Total Volume Pumped 5.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 10
Last 5	11:25:02	2100.01	23.78	5.10	279.43	2.68	20.40	3.28	134.75
Last 5	11:30:02	2400.01	24.55	5.10	279.62	3.02	--	3.08	134.89
Last 5	11:35:02	2700.00	24.24	5.11	278.98	2.57	20.40	2.93	132.01
Last 5	11:40:02	3000.00	23.41	5.12	279.07	2.34	20.40	2.78	126.91
Last 5	11:45:02	3299.99	22.88	5.12	279.26	2.20	30.40	2.69	123.34
Variance 0			-0.32	0.01	-0.64			-0.15	-2.88
Variance 1			-0.83	0.01	0.09			-0.14	-5.10
Variance 2			-0.52	-0.00	0.19			-0.09	-3.57

Notes

Cloudy sample time-1145, FB-2-6-23-18 here at 1100

Grab Samples

Product Name: Low-Flow System

Date: 2018-06-13 12:46:54

Project Information:

Operator Name J Berisford  
Company Name Atlantic Coast Consulting  
Project Name Plant Yates- Phase 1 CCR  
Site Name Ash Pond 2  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 573204  
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED Bladder  
Tubing Type poly  
Tubing Diameter .375 in  
Tubing Length 69 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 22.54 ft

Pumping Information:

Final Pumping Rate 125 mL/min  
Total System Volume 1.983587 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 1.9 in  
Total Volume Pumped 3.75 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 10
Last 5	12:25:20	600.03	25.52	5.91	302.14	1.73	22.70	1.17	4.35
Last 5	12:30:20	900.04	25.71	5.83	301.29	1.56	22.70	0.71	46.52
Last 5	12:35:20	1200.01	27.01	5.82	301.98	1.42	22.70	0.57	63.34
Last 5	12:40:20	1500.03	26.53	5.83	300.27	1.74	22.70	0.52	69.69
Last 5	12:45:20	1800.01	25.82	5.82	305.19	1.00	22.70	0.51	71.75
Variance 0			1.30	-0.01	0.69			-0.14	16.82
Variance 1			-0.48	0.01	-1.71			-0.04	6.35
Variance 2			-0.71	-0.00	4.92			-0.01	2.06

Notes

Sunny, sample time- 1145

Grab Samples

Product Name: Low-Flow System

Date: 2018-06-12 15:01:47

Project Information:

Operator Name J Berisford  
Company Name Atlantic Coast Consulting  
Project Name Plant Yates- Phase 1 CCR  
Site Name Ash Pond 2  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 573204  
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED Bladder  
Tubing Type poly  
Tubing Diameter .375 in  
Tubing Length 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 23.54 ft

Pumping Information:

Final Pumping Rate 180 mL/min  
Total System Volume 1.353746 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 0.7 in  
Total Volume Pumped 5.4 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 10
Last 5	14:40:07	600.03	21.54	6.24	386.74	3.21	23.60	1.47	83.65
Last 5	14:45:07	900.04	22.12	6.22	389.48	5.57	23.60	0.73	73.05
Last 5	14:50:07	1200.02	22.43	6.22	390.99	5.08	23.60	0.36	72.33
Last 5	14:55:07	1500.02	22.43	6.22	392.82	5.32	23.60	0.26	73.35
Last 5	15:00:07	1800.01	22.43	6.22	392.64	4.76	23.60	0.24	74.50
Variance 0			0.31	-0.00	1.51			-0.37	-0.72
Variance 1			0.01	-0.00	1.83			-0.10	1.02
Variance 2			-0.00	-0.00	-0.18			-0.03	1.16

Notes

Sunny, sample time- 1500

Grab Samples

Product Name: Low-Flow System

Date: 2018-06-13 10:14:15

Project Information:

Operator Name J Berisford  
Company Name Atlantic Coast Consulting  
Project Name Plant Yates- Phase 1 CCR  
Site Name Ash Pond 2  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 573204  
Turbidity Make/Model Hach 2100Q

Pump Information:

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

Pump placement from TOC 74 ft

Well Information:

Well ID YGWC-27I  
Well diameter 2 in  
Well Total Depth 79.84 ft  
Screen Length 10 ft  
Depth to Water 24.96 ft

Pumping Information:

Final Pumping Rate 150 mL/min  
Total System Volume 2.200773 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 1.6 in  
Total Volume Pumped 6.75 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 10
Last 5	09:50:02	1500.01	22.93	6.28	327.21	4.81	25.10	0.88	-21.47
Last 5	09:55:02	1800.02	23.14	6.28	330.06	2.84	25.10	0.71	-15.86
Last 5	10:00:02	2100.02	23.06	6.28	331.11	1.51	25.10	0.62	-12.95
Last 5	10:05:02	2400.01	22.88	6.28	331.91	1.54	25.10	0.54	-11.77
Last 5	10:10:02	2700.00	23.01	6.28	333.23	1.29	25.10	0.48	-11.40
Variance 0			-0.08	0.00	1.05			-0.09	2.91
Variance 1			-0.18	0.00	0.80			-0.08	1.17
Variance 2			0.13	-0.00	1.32			-0.07	0.37

Notes

Cloudy, sample time- 1010,

Grab Samples

Product Name: Low-Flow System

Date: 2018-06-12 12:21:16

Project Information:

Operator Name J Berisford  
Company Name Atlantic Coast Consulting  
Project Name Plant Yates- Phase 1 CCR  
Site Name Ash Pond 2  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 573204  
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED Bladder  
Tubing Type poly  
Tubing Diameter .375 in  
Tubing Length 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 21.19 ft

Pumping Information:

Final Pumping Rate 200 mL/min  
Total System Volume 1.44062 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 3.7 in  
Total Volume Pumped 36 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 10
Last 5	12:00:34	9600.88	22.20	6.47	424.12	5.24	21.50	0.10	-73.39
Last 5	12:05:35	9901.86	21.63	6.47	426.91	5.27	21.50	0.10	-73.61
Last 5	12:10:35	10201.86	22.16	6.46	426.94	5.17	21.50	0.10	-74.42
Last 5	12:15:35	10501.87	22.25	6.47	427.53	5.20	21.50	0.11	-74.98
Last 5	12:20:35	10801.85	21.99	6.47	424.57	4.85	21.50	0.10	-74.53
Variance 0			0.53	-0.00	0.03			0.00	-0.81
Variance 1			0.09	0.00	0.59			0.00	-0.56
Variance 2			-0.26	0.01	-2.95			-0.00	0.45

Notes

Sunny, sample time- 1220, Dup-2 here

Grab Samples

Product Name: Low-Flow System

Date: 2018-06-12 14:01:04

Project Information:

Operator Name J Berisford  
Company Name Atlantic Coast Consulting  
Project Name Plant Yates- Phase 1 CCR  
Site Name Ash Pond 2  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 573204  
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED Bladder  
Tubing Type poly  
Tubing Diameter .375 in  
Tubing Length 69 ft

Pump placement from TOC 64 ft

Well Information:

Well ID YGWC-28I  
Well diameter 2 in  
Well Total Depth 69.89 ft  
Screen Length 10 ft  
Depth to Water 21.28 ft

Pumping Information:

Final Pumping Rate 120 mL/min  
Total System Volume 1.983587 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 20.6 in  
Total Volume Pumped 3.84 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 10
Last 5	13:40:01	600.03	21.54	6.44	384.08	1.81	22.50	1.71	71.48
Last 5	13:45:01	900.03	21.34	6.42	374.71	1.05	22.70	1.18	66.11
Last 5	13:50:01	1200.02	21.12	6.41	374.42	0.98	22.90	0.80	65.10
Last 5	13:55:01	1500.02	21.14	6.41	376.71	0.89	23.00	0.55	65.34
Last 5	14:00:01	1800.01	20.91	6.42	379.34	0.77	23.00	0.46	64.33
Variance 0			-0.22	-0.01	-0.29			-0.37	-1.01
Variance 1			0.02	-0.00	2.29			-0.26	0.25
Variance 2			-0.22	0.01	2.63			-0.09	-1.01

Notes

Sunny, sample time-1400

Grab Samples

Product Name: Low-Flow System

Date: 2018-06-11 14:11:03

Project Information:

Operator Name J Berisford  
Company Name Atlantic Coast Consulting  
Project Name Plant Yates- Phase 1 CCR  
Site Name Ash Pond 2  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 573204  
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED Bladder  
Tubing Type poly  
Tubing Diameter .375 in  
Tubing Length 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 25.34 ft

Pumping Information:

Final Pumping Rate 110 mL/min  
Total System Volume 1.332027 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 11.5 in  
Total Volume Pumped 6.1 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 10	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 10
Last 5	13:50:04	2104.02	22.91	6.16	251.12	0.88	26.30	0.74	85.34
Last 5	13:55:04	2404.02	22.43	6.17	251.40	0.40	26.30	0.64	84.85
Last 5	14:00:05	2704.03	21.84	6.17	251.88	0.57	26.30	0.56	82.71
Last 5	14:05:05	3005.02	21.63	6.17	252.45	0.38	26.30	0.51	77.87
Last 5	14:10:05	3305.01	22.29	6.17	253.46	0.55	26.30	0.44	75.44
Variance 0			-0.59	0.00	0.48			-0.08	-2.14
Variance 1			-0.21	-0.00	0.57			-0.05	-4.84
Variance 2			0.66	-0.00	1.00			-0.07	-2.42

Notes

Sunny, sample time-1420

Grab Samples

October 12, 2018

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

RE: Project: Plant Yates Phase II  
Pace Project No.: 2610023

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on October 03, 2018. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,



Betsy McDaniel  
betsy.mcdaniel@pacelabs.com  
(770)734-4200  
Project Manager

Enclosures

cc: Maria Padilla, Georgia Power  
Chris Parker, Atlantic Coast Consulting  
Evan Perry, Atlantic Coast Consulting  
Lauren Petty, Southern Company Services, Inc.  
Rebecca Thornton, Pace Analytical Atlanta



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: Plant Yates Phase II

Pace Project No.: 2610023

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### Atlanta Certification IDs

110 Technology Parkway Peachtree Corners, GA 30092

Florida DOH Certification #: E87315

Georgia DW Inorganics Certification #: 812

Georgia DW Microbiology Certification #: 812

North Carolina Certification #: 381

South Carolina Certification #: 98011001

Texas Certification #: T104704397-08-TX

Virginia Certification #: 460204

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## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: Plant Yates Phase II  
Pace Project No.: 2610023

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2610023001	YGWA-1I	Water	10/01/18 15:25	10/03/18 17:10
2610023002	YGWA-1D	Water	10/01/18 12:40	10/03/18 17:10
2610023003	YGWA-2I	Water	10/01/18 10:55	10/03/18 17:10
2610023004	YGWA-3I	Water	10/01/18 13:55	10/03/18 17:10
2610023005	YGWA-3D	Water	10/01/18 12:05	10/03/18 17:10
2610023006	YGWA-14S	Water	10/01/18 15:35	10/03/18 17:10
2610023007	EB-1-10-1-18	Water	10/01/18 12:15	10/03/18 17:10
2610023008	Dup-1	Water	10/01/18 00:00	10/03/18 17:10
2610023009	FB-1-10-1-18	Water	10/01/18 12:50	10/03/18 17:10
2610023010	YGWA-30I	Water	10/02/18 10:35	10/03/18 17:10
2610023011	YGWC-27S	Water	10/02/18 12:35	10/03/18 17:10
2610023012	YGWC-27I	Water	10/02/18 13:35	10/03/18 17:10
2610023013	YGWC-26S	Water	10/02/18 10:55	10/03/18 17:10
2610023014	YGWC-26I	Water	10/02/18 12:25	10/03/18 17:10
2610023015	YGWC-29I	Water	10/02/18 13:55	10/03/18 17:10
2610023016	YGWC-28S	Water	10/03/18 13:15	10/03/18 17:10
2610023017	YGWC-28I	Water	10/03/18 11:00	10/03/18 17:10
2610023018	EB-2-10-3-18	Water	10/03/18 09:40	10/03/18 17:10
2610023019	Dup-2	Water	10/03/18 00:00	10/03/18 17:10
2610023020	FB-2-10-2-18	Water	10/02/18 13:50	10/03/18 17:10

## REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: Plant Yates Phase II

Pace Project No.: 2610023

Lab ID	Sample ID	Method	Analysts	Analytes Reported
2610023001	YGWA-1I	EPA 6020B	CSW	7
		SM 2540C	JPT	1
		EPA 300.0	MWB	3
2610023002	YGWA-1D	EPA 6020B	CSW	7
		SM 2540C	JPT	1
		EPA 300.0	MWB	3
2610023003	YGWA-2I	EPA 6020B	CSW	7
		SM 2540C	JPT	1
		EPA 300.0	MWB	3
2610023004	YGWA-3I	EPA 6020B	CSW	7
		SM 2540C	JPT	1
		EPA 300.0	MWB	3
2610023005	YGWA-3D	EPA 6020B	CSW	7
		SM 2540C	JPT	1
		EPA 300.0	MWB	3
2610023006	YGWA-14S	EPA 6020B	CSW	7
		SM 2540C	JPT	1
		EPA 300.0	MWB	3
2610023007	EB-1-10-1-18	EPA 6020B	CSW	7
		SM 2540C	JPT	1
		EPA 300.0	MWB	3
2610023008	Dup-1	EPA 6020B	CSW	7
		SM 2540C	JPT	1
		EPA 300.0	MWB	3
2610023009	FB-1-10-1-18	EPA 6020B	CSW	7
		SM 2540C	JPT	1
		EPA 300.0	MWB	3
2610023010	YGWA-30I	EPA 6020B	CSW	7
		SM 2540C	JPT	1
		EPA 300.0	MWB	3
2610023011	YGWC-27S	EPA 6020B	CSW	7
		SM 2540C	JPT	1
		EPA 300.0	MWB	3
2610023012	YGWC-27I	EPA 6020B	CSW	7
		SM 2540C	JPT	1
		EPA 300.0	MWB	3
2610023013	YGWC-26S	EPA 6020B	CSW	7

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### SAMPLE ANALYTE COUNT

Project: Plant Yates Phase II

Pace Project No.: 2610023

Lab ID	Sample ID	Method	Analysts	Analytes Reported
		SM 2540C	JPT	1
		EPA 300.0	MWB, RLC	3
2610023014	YGWC-26I	EPA 6020B	CSW	7
		SM 2540C	JPT	1
		EPA 300.0	MWB, RLC	3
2610023015	YGWC-29I	EPA 6020B	CSW	7
		SM 2540C	JPT	1
		EPA 300.0	MWB	3
2610023016	YGWC-28S	EPA 6020B	CSW	7
		SM 2540C	JPT	1
		EPA 300.0	MWB	3
2610023017	YGWC-28I	EPA 6020B	CSW	7
		SM 2540C	JPT	1
		EPA 300.0	MWB	3
2610023018	EB-2-10-3-18	EPA 6020B	CSW	7
		SM 2540C	JPT	1
		EPA 300.0	MWB	3
2610023019	Dup-2	EPA 6020B	CSW	7
		SM 2540C	JPT	1
		EPA 300.0	MWB	3
2610023020	FB-2-10-2-18	EPA 6020B	CSW	7
		SM 2540C	JPT	1
		EPA 300.0	MWB	3

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### ANALYTICAL RESULTS

Project: Plant Yates Phase II

Pace Project No.: 2610023

Sample: YGWA-1I		Lab ID: 2610023001		Collected: 10/01/18 15:25		Received: 10/03/18 17:10		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6020B MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Arsenic	ND	mg/L	0.0050	0.00057	1	10/08/18 12:21	10/10/18 21:35	7440-38-2	
Barium	<b>0.0084J</b>	mg/L	0.010	0.00078	1	10/08/18 12:21	10/10/18 21:35	7440-39-3	
Boron	<b>0.0049J</b>	mg/L	0.040	0.0039	1	10/08/18 12:21	10/10/18 21:35	7440-42-8	
Calcium	<b>1.8</b>	mg/L	0.50	0.014	1	10/08/18 12:21	10/10/18 21:35	7440-70-2	
Cobalt	<b>0.00059J</b>	mg/L	0.010	0.00052	1	10/08/18 12:21	10/10/18 21:35	7440-48-4	
Lithium	<b>0.0023J</b>	mg/L	0.050	0.00097	1	10/08/18 12:21	10/10/18 21:35	7439-93-2	
Molybdenum	<b>0.0076J</b>	mg/L	0.010	0.0019	1	10/08/18 12:21	10/10/18 21:35	7439-98-7	
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C							
Total Dissolved Solids	<b>60.0</b>	mg/L	25.0	10.0	1		10/04/18 15:26		
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0							
Chloride	<b>1.4</b>	mg/L	0.25	0.024	1		10/09/18 19:40	16887-00-6	B
Fluoride	ND	mg/L	0.30	0.029	1		10/09/18 19:40	16984-48-8	
Sulfate	<b>4.0</b>	mg/L	1.0	0.017	1		10/09/18 19:40	14808-79-8	

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### ANALYTICAL RESULTS

Project: Plant Yates Phase II

Pace Project No.: 2610023

<b>Sample: YGWA-1D</b>		<b>Lab ID: 2610023002</b>		Collected: 10/01/18 12:40	Received: 10/03/18 17:10	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
<b>6020B MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Arsenic	<b>0.0016J</b>	mg/L	0.0050	0.00057	1	10/08/18 12:21	10/10/18 21:47	7440-38-2		
Barium	<b>0.0062J</b>	mg/L	0.010	0.00078	1	10/08/18 12:21	10/10/18 21:47	7440-39-3		
Boron	<b>0.021J</b>	mg/L	0.20	0.020	5	10/08/18 12:21	10/12/18 09:22	7440-42-8	D3	
Calcium	<b>15.1</b>	mg/L	2.5	0.069	5	10/08/18 12:21	10/12/18 09:22	7440-70-2		
Cobalt	ND	mg/L	0.010	0.00052	1	10/08/18 12:21	10/10/18 21:47	7440-48-4		
Lithium	<b>0.0053J</b>	mg/L	0.25	0.0049	5	10/08/18 12:21	10/12/18 09:22	7439-93-2	D3	
Molybdenum	<b>0.0085J</b>	mg/L	0.010	0.0019	1	10/08/18 12:21	10/10/18 21:47	7439-98-7		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C								
Total Dissolved Solids	<b>117</b>	mg/L	25.0	10.0	1		10/04/18 15:26			
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0								
Chloride	<b>1.1</b>	mg/L	0.25	0.024	1		10/09/18 20:42	16887-00-6	B	
Fluoride	ND	mg/L	0.30	0.029	1		10/09/18 20:42	16984-48-8		
Sulfate	<b>5.6</b>	mg/L	1.0	0.017	1		10/09/18 20:42	14808-79-8		

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### ANALYTICAL RESULTS

Project: Plant Yates Phase II

Pace Project No.: 2610023

<b>Sample: YGWA-2I</b>		<b>Lab ID: 2610023003</b>		Collected: 10/01/18 10:55	Received: 10/03/18 17:10	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
<b>6020B MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Arsenic	<b>0.0011J</b>	mg/L	0.0050	0.00057	1	10/08/18 12:21	10/10/18 21:58	7440-38-2		
Barium	<b>0.0038J</b>	mg/L	0.010	0.00078	1	10/08/18 12:21	10/10/18 21:58	7440-39-3		
Boron	ND	mg/L	0.20	0.020	5	10/08/18 12:21	10/12/18 09:28	7440-42-8	D3	
Calcium	<b>25.0</b>	mg/L	2.5	0.069	5	10/08/18 12:21	10/12/18 09:28	7440-70-2		
Cobalt	ND	mg/L	0.010	0.00052	1	10/08/18 12:21	10/10/18 21:58	7440-48-4		
Lithium	ND	mg/L	0.25	0.0049	5	10/08/18 12:21	10/12/18 09:28	7439-93-2	D3	
Molybdenum	<b>0.0042J</b>	mg/L	0.010	0.0019	1	10/08/18 12:21	10/10/18 21:58	7439-98-7		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C								
Total Dissolved Solids	<b>155</b>	mg/L	25.0	10.0	1		10/04/18 15:26			
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0								
Chloride	<b>1.1</b>	mg/L	0.25	0.024	1		10/09/18 21:03	16887-00-6	B	
Fluoride	ND	mg/L	0.30	0.029	1		10/09/18 21:03	16984-48-8		
Sulfate	<b>9.1</b>	mg/L	1.0	0.017	1		10/09/18 21:03	14808-79-8		

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### ANALYTICAL RESULTS

Project: Plant Yates Phase II  
Pace Project No.: 2610023

<b>Sample: YGWA-3I</b>		<b>Lab ID: 2610023004</b>		Collected: 10/01/18 13:55	Received: 10/03/18 17:10	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
<b>6020B MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Arsenic	ND	mg/L	0.0050	0.00057	1	10/08/18 12:21	10/10/18 22:09	7440-38-2		
Barium	<b>0.0034J</b>	mg/L	0.010	0.00078	1	10/08/18 12:21	10/10/18 22:09	7440-39-3		
Boron	ND	mg/L	0.20	0.020	5	10/08/18 12:21	10/12/18 09:34	7440-42-8	D3	
Calcium	<b>19.7</b>	mg/L	2.5	0.069	5	10/08/18 12:21	10/12/18 09:34	7440-70-2		
Cobalt	ND	mg/L	0.010	0.00052	1	10/08/18 12:21	10/10/18 22:09	7440-48-4		
Lithium	<b>0.011J</b>	mg/L	0.25	0.0049	5	10/08/18 12:21	10/12/18 09:34	7439-93-2	D3	
Molybdenum	<b>0.0037J</b>	mg/L	0.010	0.0019	1	10/08/18 12:21	10/10/18 22:09	7439-98-7		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C								
Total Dissolved Solids	<b>138</b>	mg/L	25.0	10.0	1		10/04/18 15:26			
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0								
Chloride	<b>1.2</b>	mg/L	0.25	0.024	1		10/09/18 21:24	16887-00-6	B	
Fluoride	ND	mg/L	0.30	0.029	1		10/09/18 21:24	16984-48-8		
Sulfate	<b>9.1</b>	mg/L	1.0	0.017	1		10/09/18 21:24	14808-79-8		

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### ANALYTICAL RESULTS

Project: Plant Yates Phase II  
Pace Project No.: 2610023

Sample: YGWA-3D		Lab ID: 2610023005		Collected: 10/01/18 12:05		Received: 10/03/18 17:10		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6020B MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A							
Arsenic	ND	mg/L	0.0050	0.00057	1	10/08/18 12:21	10/10/18 22:32	7440-38-2	
Barium	<b>0.0065J</b>	mg/L	0.010	0.00078	1	10/08/18 12:21	10/10/18 22:32	7440-39-3	
Boron	ND	mg/L	0.20	0.020	5	10/08/18 12:21	10/12/18 09:40	7440-42-8	D3
Calcium	<b>26.9</b>	mg/L	2.5	0.069	5	10/08/18 12:21	10/12/18 09:40	7440-70-2	
Cobalt	ND	mg/L	0.010	0.00052	1	10/08/18 12:21	10/10/18 22:32	7440-48-4	
Lithium	<b>0.020J</b>	mg/L	0.25	0.0049	5	10/08/18 12:21	10/12/18 09:40	7439-93-2	D3
Molybdenum	<b>0.012</b>	mg/L	0.010	0.0019	1	10/08/18 12:21	10/10/18 22:32	7439-98-7	
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C							
Total Dissolved Solids	<b>165</b>	mg/L	25.0	10.0	1		10/04/18 15:26		
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0							
Chloride	<b>1.5</b>	mg/L	0.25	0.024	1		10/09/18 21:44	16887-00-6	B
Fluoride	<b>0.44</b>	mg/L	0.30	0.029	1		10/09/18 21:44	16984-48-8	
Sulfate	<b>7.1</b>	mg/L	1.0	0.017	1		10/09/18 21:44	14808-79-8	

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### ANALYTICAL RESULTS

Project: Plant Yates Phase II  
Pace Project No.: 2610023

<b>Sample: YGWA-14S</b>		<b>Lab ID: 2610023006</b>		Collected: 10/01/18 15:35	Received: 10/03/18 17:10	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
<b>6020B MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Arsenic	ND	mg/L	0.0050	0.00057	1	10/08/18 12:21	10/10/18 22:44	7440-38-2		
Barium	<b>0.0070J</b>	mg/L	0.010	0.00078	1	10/08/18 12:21	10/10/18 22:44	7440-39-3		
Boron	<b>0.015J</b>	mg/L	0.040	0.0039	1	10/08/18 12:21	10/10/18 22:44	7440-42-8		
Calcium	<b>0.99</b>	mg/L	0.50	0.014	1	10/08/18 12:21	10/10/18 22:44	7440-70-2		
Cobalt	ND	mg/L	0.010	0.00052	1	10/08/18 12:21	10/10/18 22:44	7440-48-4		
Lithium	ND	mg/L	0.050	0.00097	1	10/08/18 12:21	10/10/18 22:44	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.0019	1	10/08/18 12:21	10/10/18 22:44	7439-98-7		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C								
Total Dissolved Solids	<b>50.0</b>	mg/L	25.0	10.0	1		10/04/18 15:26			
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0								
Chloride	<b>3.8</b>	mg/L	0.25	0.024	1		10/09/18 22:05	16887-00-6		
Fluoride	ND	mg/L	0.30	0.029	1		10/09/18 22:05	16984-48-8		
Sulfate	<b>6.8</b>	mg/L	1.0	0.017	1		10/09/18 22:05	14808-79-8		

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### ANALYTICAL RESULTS

Project: Plant Yates Phase II

Pace Project No.: 2610023

Sample: EB-1-10-1-18		Lab ID: 2610023007		Collected: 10/01/18 12:15	Received: 10/03/18 17:10	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
<b>6020B MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Arsenic	ND	mg/L	0.0050	0.00057	1	10/08/18 12:21	10/10/18 22:55	7440-38-2		
Barium	ND	mg/L	0.010	0.00078	1	10/08/18 12:21	10/10/18 22:55	7440-39-3		
Boron	ND	mg/L	0.040	0.0039	1	10/08/18 12:21	10/10/18 22:55	7440-42-8		
Calcium	<b>0.021J</b>	mg/L	0.50	0.014	1	10/08/18 12:21	10/10/18 22:55	7440-70-2		
Cobalt	ND	mg/L	0.010	0.00052	1	10/08/18 12:21	10/10/18 22:55	7440-48-4		
Lithium	ND	mg/L	0.050	0.00097	1	10/08/18 12:21	10/10/18 22:55	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.0019	1	10/08/18 12:21	10/10/18 22:55	7439-98-7		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C								
Total Dissolved Solids	ND	mg/L	25.0	10.0	1		10/04/18 15:26			
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0								
Chloride	<b>0.13J</b>	mg/L	0.25	0.024	1		10/09/18 22:26	16887-00-6	B	
Fluoride	ND	mg/L	0.30	0.029	1		10/09/18 22:26	16984-48-8		
Sulfate	ND	mg/L	1.0	0.017	1		10/09/18 22:26	14808-79-8		

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### ANALYTICAL RESULTS

Project: Plant Yates Phase II  
Pace Project No.: 2610023

Sample: Dup-1      Lab ID: 2610023008      Collected: 10/01/18 00:00      Received: 10/03/18 17:10      Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6020B MET ICPMS</b> Analytical Method: EPA 6020B      Preparation Method: EPA 3005A									
Arsenic	ND	mg/L	0.0050	0.00057	1	10/08/18 12:21	10/10/18 23:01	7440-38-2	
Barium	<b>0.0071J</b>	mg/L	0.010	0.00078	1	10/08/18 12:21	10/10/18 23:01	7440-39-3	
Boron	<b>0.015J</b>	mg/L	0.040	0.0039	1	10/08/18 12:21	10/10/18 23:01	7440-42-8	
Calcium	<b>0.99</b>	mg/L	0.50	0.014	1	10/08/18 12:21	10/10/18 23:01	7440-70-2	
Cobalt	ND	mg/L	0.010	0.00052	1	10/08/18 12:21	10/10/18 23:01	7440-48-4	
Lithium	ND	mg/L	0.050	0.00097	1	10/08/18 12:21	10/10/18 23:01	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	10/08/18 12:21	10/10/18 23:01	7439-98-7	
<b>2540C Total Dissolved Solids</b> Analytical Method: SM 2540C									
Total Dissolved Solids	<b>57.0</b>	mg/L	25.0	10.0	1		10/04/18 15:26		
<b>300.0 IC Anions 28 Days</b> Analytical Method: EPA 300.0									
Chloride	<b>3.6</b>	mg/L	0.25	0.024	1		10/09/18 22:46	16887-00-6	
Fluoride	ND	mg/L	0.30	0.029	1		10/09/18 22:46	16984-48-8	
Sulfate	<b>7.0</b>	mg/L	1.0	0.017	1		10/09/18 22:46	14808-79-8	

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### ANALYTICAL RESULTS

Project: Plant Yates Phase II

Pace Project No.: 2610023

Sample: <b>FB-1-10-1-18</b>		Lab ID: <b>2610023009</b>		Collected: 10/01/18 12:50	Received: 10/03/18 17:10	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
<b>6020B MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Arsenic	ND	mg/L	0.0050	0.00057	1	10/08/18 12:21	10/10/18 23:12	7440-38-2		
Barium	ND	mg/L	0.010	0.00078	1	10/08/18 12:21	10/10/18 23:12	7440-39-3		
Boron	ND	mg/L	0.040	0.0039	1	10/08/18 12:21	10/10/18 23:12	7440-42-8		
Calcium	<b>0.025J</b>	mg/L	0.50	0.014	1	10/08/18 12:21	10/10/18 23:12	7440-70-2		
Cobalt	ND	mg/L	0.010	0.00052	1	10/08/18 12:21	10/10/18 23:12	7440-48-4		
Lithium	ND	mg/L	0.050	0.00097	1	10/08/18 12:21	10/10/18 23:12	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.0019	1	10/08/18 12:21	10/10/18 23:12	7439-98-7		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C								
Total Dissolved Solids	ND	mg/L	25.0	10.0	1		10/04/18 15:26			
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0								
Chloride	<b>0.087J</b>	mg/L	0.25	0.024	1		10/10/18 00:30	16887-00-6	B	
Fluoride	ND	mg/L	0.30	0.029	1		10/10/18 00:30	16984-48-8		
Sulfate	ND	mg/L	1.0	0.017	1		10/10/18 00:30	14808-79-8		

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### ANALYTICAL RESULTS

Project: Plant Yates Phase II

Pace Project No.: 2610023

Sample: YGWA-30I		Lab ID: 2610023010		Collected: 10/02/18 10:35	Received: 10/03/18 17:10	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
<b>6020B MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Arsenic	ND	mg/L	0.0050	0.00057	1	10/08/18 12:21	10/10/18 23:18	7440-38-2		
Barium	<b>0.0069J</b>	mg/L	0.010	0.00078	1	10/08/18 12:21	10/10/18 23:18	7440-39-3		
Boron	ND	mg/L	0.040	0.0039	1	10/08/18 12:21	10/12/18 09:45	7440-42-8		
Calcium	<b>1.1</b>	mg/L	0.50	0.014	1	10/08/18 12:21	10/12/18 09:45	7440-70-2		
Cobalt	<b>0.022</b>	mg/L	0.010	0.00052	1	10/08/18 12:21	10/10/18 23:18	7440-48-4		
Lithium	ND	mg/L	0.050	0.00097	1	10/08/18 12:21	10/12/18 09:45	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.0019	1	10/08/18 12:21	10/10/18 23:18	7439-98-7		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C								
Total Dissolved Solids	<b>57.0</b>	mg/L	25.0	10.0	1		10/04/18 15:26			
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0								
Chloride	<b>1.8</b>	mg/L	0.25	0.024	1		10/10/18 00:50	16887-00-6	B	
Fluoride	ND	mg/L	0.30	0.029	1		10/10/18 00:50	16984-48-8		
Sulfate	<b>1.0</b>	mg/L	1.0	0.017	1		10/10/18 00:50	14808-79-8		

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### ANALYTICAL RESULTS

Project: Plant Yates Phase II

Pace Project No.: 2610023

<b>Sample: YGWC-27S</b>		<b>Lab ID: 2610023011</b>		Collected: 10/02/18 12:35	Received: 10/03/18 17:10	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
<b>6020B MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Arsenic	ND	mg/L	0.0050	0.00057	1	10/08/18 12:21	10/10/18 23:41	7440-38-2		
Barium	<b>0.10</b>	mg/L	0.010	0.00078	1	10/08/18 12:21	10/10/18 23:41	7440-39-3		
Boron	<b>1.4</b>	mg/L	0.040	0.0039	1	10/08/18 12:21	10/10/18 23:41	7440-42-8		
Calcium	<b>39.1</b>	mg/L	25.0	0.69	50	10/08/18 12:21	10/10/18 23:47	7440-70-2		
Cobalt	<b>0.0023J</b>	mg/L	0.010	0.00052	1	10/08/18 12:21	10/10/18 23:41	7440-48-4		
Lithium	ND	mg/L	0.050	0.00097	1	10/08/18 12:21	10/10/18 23:41	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.0019	1	10/08/18 12:21	10/10/18 23:41	7439-98-7		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C								
Total Dissolved Solids	<b>206</b>	mg/L	25.0	10.0	1		10/04/18 15:26			
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0								
Chloride	<b>19.9</b>	mg/L	0.25	0.024	1		10/10/18 01:32	16887-00-6		
Fluoride	ND	mg/L	0.30	0.029	1		10/10/18 01:32	16984-48-8		
Sulfate	<b>20.2</b>	mg/L	1.0	0.017	1		10/10/18 01:32	14808-79-8		

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### ANALYTICAL RESULTS

Project: Plant Yates Phase II  
Pace Project No.: 2610023

<b>Sample: YGWC-271</b>									
<b>Lab ID: 2610023012</b>									
Collected: 10/02/18 13:35 Received: 10/03/18 17:10 Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6020B MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Arsenic	ND	mg/L	0.0050	0.00057	1	10/08/18 12:21	10/10/18 23:53	7440-38-2	
Barium	<b>0.062</b>	mg/L	0.010	0.00078	1	10/08/18 12:21	10/10/18 23:53	7440-39-3	
Boron	<b>1.9</b>	mg/L	0.20	0.020	5	10/08/18 12:21	10/12/18 09:51	7440-42-8	
Calcium	<b>29.2</b>	mg/L	2.5	0.069	5	10/08/18 12:21	10/12/18 09:51	7440-70-2	
Cobalt	<b>0.078</b>	mg/L	0.010	0.00052	1	10/08/18 12:21	10/10/18 23:53	7440-48-4	
Lithium	<b>0.012J</b>	mg/L	0.25	0.0049	5	10/08/18 12:21	10/12/18 09:51	7439-93-2	D3
Molybdenum	ND	mg/L	0.010	0.0019	1	10/08/18 12:21	10/10/18 23:53	7439-98-7	
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C									
Total Dissolved Solids	<b>227</b>	mg/L	25.0	10.0	1		10/04/18 15:26		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0									
Chloride	<b>13.8</b>	mg/L	0.25	0.024	1		10/10/18 01:52	16887-00-6	
Fluoride	ND	mg/L	0.30	0.029	1		10/10/18 01:52	16984-48-8	
Sulfate	<b>6.1</b>	mg/L	1.0	0.017	1		10/10/18 01:52	14808-79-8	

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### ANALYTICAL RESULTS

Project: Plant Yates Phase II

Pace Project No.: 2610023

Sample: YGWC-26S      Lab ID: 2610023013      Collected: 10/02/18 10:55      Received: 10/03/18 17:10      Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6020B MET ICPMS</b> Analytical Method: EPA 6020B      Preparation Method: EPA 3005A									
Arsenic	ND	mg/L	0.0050	0.00057	1	10/08/18 12:21	10/11/18 00:04	7440-38-2	
Barium	<b>0.026</b>	mg/L	0.010	0.00078	1	10/08/18 12:21	10/11/18 00:04	7440-39-3	
Boron	<b>0.62</b>	mg/L	0.040	0.0039	1	10/08/18 12:21	10/11/18 00:04	7440-42-8	
Calcium	<b>12.4J</b>	mg/L	25.0	0.69	50	10/08/18 12:21	10/11/18 00:10	7440-70-2	D3,M6
Cobalt	<b>0.0016J</b>	mg/L	0.010	0.00052	1	10/08/18 12:21	10/11/18 00:04	7440-48-4	
Lithium	ND	mg/L	0.050	0.00097	1	10/08/18 12:21	10/11/18 00:04	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.0019	1	10/08/18 12:21	10/11/18 00:04	7439-98-7	
<b>2540C Total Dissolved Solids</b> Analytical Method: SM 2540C									
Total Dissolved Solids	<b>191</b>	mg/L	25.0	10.0	1		10/04/18 15:27		
<b>300.0 IC Anions 28 Days</b> Analytical Method: EPA 300.0									
Chloride	<b>14.0</b>	mg/L	0.25	0.024	1		10/10/18 02:13	16887-00-6	
Fluoride	ND	mg/L	0.30	0.029	1		10/10/18 02:13	16984-48-8	
Sulfate	<b>99.0</b>	mg/L	10.0	0.17	10		10/11/18 14:38	14808-79-8	

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### ANALYTICAL RESULTS

Project: Plant Yates Phase II

Pace Project No.: 2610023

<b>Sample: YGWC-26I</b>		<b>Lab ID: 2610023014</b>		Collected: 10/02/18 12:25	Received: 10/03/18 17:10	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
<b>6020B MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Arsenic	ND	mg/L	0.0050	0.00057	1	10/08/18 12:21	10/11/18 00:56	7440-38-2		
Barium	<b>0.066</b>	mg/L	0.010	0.00078	1	10/08/18 12:21	10/11/18 00:56	7440-39-3		
Boron	<b>0.93</b>	mg/L	0.20	0.020	5	10/08/18 12:21	10/12/18 09:57	7440-42-8		
Calcium	<b>14.7</b>	mg/L	2.5	0.069	5	10/08/18 12:21	10/12/18 09:57	7440-70-2		
Cobalt	ND	mg/L	0.010	0.00052	1	10/08/18 12:21	10/11/18 00:56	7440-48-4		
Lithium	<b>0.0064J</b>	mg/L	0.25	0.0049	5	10/08/18 12:21	10/12/18 09:57	7439-93-2	D3	
Molybdenum	ND	mg/L	0.010	0.0019	1	10/08/18 12:21	10/11/18 00:56	7439-98-7		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C								
Total Dissolved Solids	<b>227</b>	mg/L	25.0	10.0	1		10/04/18 15:27			
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0								
Chloride	<b>18.3</b>	mg/L	0.25	0.024	1		10/10/18 02:34	16887-00-6		
Fluoride	ND	mg/L	0.30	0.029	1		10/10/18 02:34	16984-48-8		
Sulfate	<b>83.9</b>	mg/L	10.0	0.17	10		10/11/18 14:58	14808-79-8		

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### ANALYTICAL RESULTS

Project: Plant Yates Phase II

Pace Project No.: 2610023

<b>Sample: YGWC-29I</b>		<b>Lab ID: 2610023015</b>		Collected: 10/02/18 13:55	Received: 10/03/18 17:10	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
<b>6020B MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Arsenic	ND	mg/L	0.0050	0.00057	1	10/08/18 12:21	10/11/18 01:07	7440-38-2		
Barium	<b>0.067</b>	mg/L	0.010	0.00078	1	10/08/18 12:21	10/11/18 01:07	7440-39-3		
Boron	<b>0.81</b>	mg/L	0.040	0.0039	1	10/08/18 12:21	10/11/18 01:07	7440-42-8		
Calcium	<b>11.7J</b>	mg/L	25.0	0.69	50	10/08/18 12:21	10/11/18 01:13	7440-70-2	D3	
Cobalt	ND	mg/L	0.010	0.00052	1	10/08/18 12:21	10/11/18 01:07	7440-48-4		
Lithium	<b>0.0060J</b>	mg/L	0.050	0.00097	1	10/08/18 12:21	10/11/18 01:07	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.0019	1	10/08/18 12:21	10/11/18 01:07	7439-98-7		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C								
Total Dissolved Solids	<b>154</b>	mg/L	25.0	10.0	1		10/04/18 15:27			
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0								
Chloride	<b>13.4</b>	mg/L	0.25	0.024	1		10/10/18 02:54	16887-00-6		
Fluoride	ND	mg/L	0.30	0.029	1		10/10/18 02:54	16984-48-8		
Sulfate	<b>30.8</b>	mg/L	1.0	0.017	1		10/10/18 02:54	14808-79-8		

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### ANALYTICAL RESULTS

Project: Plant Yates Phase II

Pace Project No.: 2610023

Sample: YGWC-28S      Lab ID: 2610023016      Collected: 10/03/18 13:15      Received: 10/03/18 17:10      Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6020B MET ICPMS</b> Analytical Method: EPA 6020B      Preparation Method: EPA 3005A									
Arsenic	<b>0.00070J</b>	mg/L	0.0050	0.00057	1	10/08/18 12:21	10/11/18 01:18	7440-38-2	
Barium	<b>0.22</b>	mg/L	0.010	0.00078	1	10/08/18 12:21	10/11/18 01:18	7440-39-3	
Boron	<b>2.4</b>	mg/L	0.20	0.020	5	10/08/18 12:21	10/12/18 10:02	7440-42-8	
Calcium	<b>25.8</b>	mg/L	2.5	0.069	5	10/08/18 12:21	10/12/18 10:02	7440-70-2	
Cobalt	<b>0.0013J</b>	mg/L	0.010	0.00052	1	10/08/18 12:21	10/11/18 01:18	7440-48-4	
Lithium	ND	mg/L	0.25	0.0049	5	10/08/18 12:21	10/12/18 10:02	7439-93-2	D3
Molybdenum	ND	mg/L	0.010	0.0019	1	10/08/18 12:21	10/11/18 01:18	7439-98-7	
<b>2540C Total Dissolved Solids</b> Analytical Method: SM 2540C									
Total Dissolved Solids	<b>237</b>	mg/L	25.0	10.0	1		10/08/18 17:35		
<b>300.0 IC Anions 28 Days</b> Analytical Method: EPA 300.0									
Chloride	<b>20.2</b>	mg/L	0.25	0.024	1		10/10/18 03:15	16887-00-6	
Fluoride	<b>0.31</b>	mg/L	0.30	0.029	1		10/10/18 03:15	16984-48-8	
Sulfate	<b>2.1</b>	mg/L	1.0	0.017	1		10/10/18 03:15	14808-79-8	

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### ANALYTICAL RESULTS

Project: Plant Yates Phase II

Pace Project No.: 2610023

Sample: YGWC-28I									
Lab ID: 2610023017									
Collected: 10/03/18 11:00									
Received: 10/03/18 17:10									
Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6020B MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Arsenic	ND	mg/L	0.0050	0.00057	1	10/08/18 12:21	10/11/18 01:30	7440-38-2	
Barium	<b>0.092</b>	mg/L	0.010	0.00078	1	10/08/18 12:21	10/11/18 01:30	7440-39-3	
Boron	<b>2.3</b>	mg/L	0.20	0.020	5	10/08/18 12:21	10/12/18 10:08	7440-42-8	
Calcium	<b>32.6</b>	mg/L	2.5	0.069	5	10/08/18 12:21	10/12/18 10:08	7440-70-2	
Cobalt	ND	mg/L	0.010	0.00052	1	10/08/18 12:21	10/11/18 01:30	7440-48-4	
Lithium	<b>0.0069J</b>	mg/L	0.25	0.0049	5	10/08/18 12:21	10/12/18 10:08	7439-93-2	D3
Molybdenum	ND	mg/L	0.010	0.0019	1	10/08/18 12:21	10/11/18 01:30	7439-98-7	
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2540C									
Total Dissolved Solids	<b>232</b>	mg/L	25.0	10.0	1		10/08/18 17:35		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0									
Chloride	<b>17.7</b>	mg/L	0.25	0.024	1		10/10/18 03:36	16887-00-6	
Fluoride	ND	mg/L	0.30	0.029	1		10/10/18 03:36	16984-48-8	
Sulfate	<b>8.0</b>	mg/L	1.0	0.017	1		10/10/18 03:36	14808-79-8	

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### ANALYTICAL RESULTS

Project: Plant Yates Phase II

Pace Project No.: 2610023

Sample: EB-2-10-3-18		Lab ID: 2610023018		Collected: 10/03/18 09:40	Received: 10/03/18 17:10	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
<b>6020B MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Arsenic	ND	mg/L	0.0050	0.00057	1	10/08/18 12:21	10/11/18 01:53	7440-38-2		
Barium	ND	mg/L	0.010	0.00078	1	10/08/18 12:21	10/11/18 01:53	7440-39-3		
Boron	ND	mg/L	0.040	0.0039	1	10/08/18 12:21	10/11/18 01:53	7440-42-8		
Calcium	<b>0.020J</b>	mg/L	0.50	0.014	1	10/08/18 12:21	10/11/18 01:53	7440-70-2		
Cobalt	ND	mg/L	0.010	0.00052	1	10/08/18 12:21	10/11/18 01:53	7440-48-4		
Lithium	ND	mg/L	0.050	0.00097	1	10/08/18 12:21	10/11/18 01:53	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.0019	1	10/08/18 12:21	10/11/18 01:53	7439-98-7		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C								
Total Dissolved Solids	ND	mg/L	25.0	10.0	1		10/08/18 17:35			
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0								
Chloride	<b>0.13J</b>	mg/L	0.25	0.024	1		10/10/18 05:19	16887-00-6	B	
Fluoride	ND	mg/L	0.30	0.029	1		10/10/18 05:19	16984-48-8		
Sulfate	<b>0.042J</b>	mg/L	1.0	0.017	1		10/10/18 05:19	14808-79-8		

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## ANALYTICAL RESULTS

Project: Plant Yates Phase II

Pace Project No.: 2610023

<b>Sample: Dup-2</b>		<b>Lab ID: 2610023019</b>		Collected: 10/03/18 00:00	Received: 10/03/18 17:10	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
<b>6020B MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Arsenic	ND	mg/L	0.0050	0.00057	1	10/08/18 12:21	10/11/18 01:58	7440-38-2		
Barium	<b>0.22</b>	mg/L	0.010	0.00078	1	10/08/18 12:21	10/11/18 01:58	7440-39-3		
Boron	<b>2.6</b>	mg/L	0.040	0.0039	1	10/08/18 12:21	10/11/18 01:58	7440-42-8		
Calcium	<b>28.6</b>	mg/L	25.0	0.69	50	10/08/18 12:21	10/11/18 02:04	7440-70-2		
Cobalt	<b>0.0013J</b>	mg/L	0.010	0.00052	1	10/08/18 12:21	10/11/18 01:58	7440-48-4		
Lithium	ND	mg/L	0.050	0.00097	1	10/08/18 12:21	10/11/18 01:58	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.0019	1	10/08/18 12:21	10/11/18 01:58	7439-98-7		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C								
Total Dissolved Solids	<b>231</b>	mg/L	25.0	10.0	1		10/08/18 17:35			
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0								
Chloride	<b>19.7</b>	mg/L	0.25	0.024	1		10/10/18 05:40	16887-00-6		
Fluoride	<b>0.15J</b>	mg/L	0.30	0.029	1		10/10/18 05:40	16984-48-8		
Sulfate	<b>2.1</b>	mg/L	1.0	0.017	1		10/10/18 05:40	14808-79-8		

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### ANALYTICAL RESULTS

Project: Plant Yates Phase II  
Pace Project No.: 2610023

Sample: <b>FB-2-10-2-18</b>		Lab ID: <b>2610023020</b>		Collected: 10/02/18 13:50	Received: 10/03/18 17:10	Matrix: Water				
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual	
<b>6020B MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Arsenic	ND	mg/L	0.0050	0.00057	1	10/08/18 12:21	10/11/18 02:16	7440-38-2		
Barium	ND	mg/L	0.010	0.00078	1	10/08/18 12:21	10/11/18 02:16	7440-39-3		
Boron	ND	mg/L	0.040	0.0039	1	10/08/18 12:21	10/11/18 02:16	7440-42-8		
Calcium	<b>0.021J</b>	mg/L	0.50	0.014	1	10/08/18 12:21	10/11/18 02:16	7440-70-2		
Cobalt	ND	mg/L	0.010	0.00052	1	10/08/18 12:21	10/11/18 02:16	7440-48-4		
Lithium	ND	mg/L	0.050	0.00097	1	10/08/18 12:21	10/11/18 02:16	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.0019	1	10/08/18 12:21	10/11/18 02:16	7439-98-7		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2540C								
Total Dissolved Solids	ND	mg/L	25.0	10.0	1		10/04/18 15:27			
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0								
Chloride	<b>0.13J</b>	mg/L	0.25	0.024	1		10/10/18 06:00	16887-00-6	B	
Fluoride	ND	mg/L	0.30	0.029	1		10/10/18 06:00	16984-48-8		
Sulfate	ND	mg/L	1.0	0.017	1		10/10/18 06:00	14808-79-8		

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: Plant Yates Phase II  
Pace Project No.: 2610023

QC Batch: 14926 Analysis Method: EPA 6020B  
QC Batch Method: EPA 3005A Analysis Description: 6020B MET  
Associated Lab Samples: 2610023001, 2610023002, 2610023003, 2610023004, 2610023005, 2610023006, 2610023007, 2610023008, 2610023009, 2610023010, 2610023011, 2610023012, 2610023013, 2610023014, 2610023015, 2610023016, 2610023017, 2610023018, 2610023019, 2610023020

METHOD BLANK: 66893 Matrix: Water  
Associated Lab Samples: 2610023001, 2610023002, 2610023003, 2610023004, 2610023005, 2610023006, 2610023007, 2610023008, 2610023009, 2610023010, 2610023011, 2610023012, 2610023013, 2610023014, 2610023015, 2610023016, 2610023017, 2610023018, 2610023019, 2610023020

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic	mg/L	ND	0.0050	0.00057	10/10/18 21:24	
Barium	mg/L	ND	0.010	0.00078	10/10/18 21:24	
Boron	mg/L	ND	0.040	0.0039	10/10/18 21:24	
Calcium	mg/L	ND	0.50	0.014	10/10/18 21:24	
Cobalt	mg/L	ND	0.010	0.00052	10/10/18 21:24	
Lithium	mg/L	ND	0.050	0.00097	10/10/18 21:24	
Molybdenum	mg/L	ND	0.010	0.0019	10/10/18 21:24	

LABORATORY CONTROL SAMPLE: 66894

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/L	.1	0.099	99	80-120	
Barium	mg/L	.1	0.099	99	80-120	
Boron	mg/L	1	1.0	105	80-120	
Calcium	mg/L	1	0.99	99	80-120	
Cobalt	mg/L	.1	0.10	101	80-120	
Lithium	mg/L	.1	0.11	109	80-120	
Molybdenum	mg/L	.1	0.10	104	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 66895 66896

Parameter	Units	MS		MSD		% Rec		% Rec	% Rec	% Rec	Max RPD	Qual
		2610023013	Spike Conc.	Spike Conc.	MS Result	MSD Result	MS % Rec					
Arsenic	mg/L	ND	.1	.1	0.11	0.11	106	106	75-125	0	20	
Barium	mg/L	0.026	.1	.1	0.13	0.13	105	106	75-125	0	20	
Boron	mg/L	0.62	1	1	1.6	1.7	99	107	75-125	5	20	
Calcium	mg/L	12.4J	1	1	13.1J	13.4J	68	102	75-125	3	20	M6
Cobalt	mg/L	0.0016J	.1	.1	0.10	0.11	98	104	75-125	6	20	
Lithium	mg/L	ND	.1	.1	0.10	0.11	102	108	75-125	5	20	
Molybdenum	mg/L	ND	.1	.1	0.11	0.11	110	109	75-125	1	20	

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

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### QUALITY CONTROL DATA

Project: Plant Yates Phase II  
Pace Project No.: 2610023

QC Batch: 14978 Analysis Method: EPA 300.0  
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions  
Associated Lab Samples: 2610023001, 2610023002, 2610023003, 2610023004, 2610023005, 2610023006, 2610023007, 2610023008, 2610023009, 2610023010, 2610023011, 2610023012, 2610023013, 2610023014, 2610023015, 2610023016, 2610023017, 2610023018, 2610023019, 2610023020

METHOD BLANK: 67082 Matrix: Water  
Associated Lab Samples: 2610023001, 2610023002, 2610023003, 2610023004, 2610023005, 2610023006, 2610023007, 2610023008, 2610023009, 2610023010, 2610023011, 2610023012, 2610023013, 2610023014, 2610023015, 2610023016, 2610023017, 2610023018, 2610023019, 2610023020

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	0.29	0.25	0.024	10/09/18 18:59	
Fluoride	mg/L	ND	0.30	0.029	10/09/18 18:59	
Sulfate	mg/L	ND	1.0	0.017	10/09/18 18:59	

LABORATORY CONTROL SAMPLE: 67083

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	10	10.2	102	90-110	
Fluoride	mg/L	10	9.9	99	90-110	
Sulfate	mg/L	10	10.0	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 67084 67085

Parameter	Units	2610023001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	1.4	10	10	11.0	11.4	96	99	90-110	3	15	
Fluoride	mg/L	ND	10	10	9.3	9.7	93	97	90-110	4	15	
Sulfate	mg/L	4.0	10	10	13.5	13.6	95	96	90-110	0	15	

MATRIX SPIKE SAMPLE: 67086

Parameter	Units	2610023002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	1.1	10	11.6	105	90-110	
Fluoride	mg/L	ND	10	11.0	110	90-110	
Sulfate	mg/L	5.6	10	16.0	103	90-110	

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

### REPORT OF LABORATORY ANALYSIS

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## QUALIFIERS

Project: Plant Yates Phase II

Pace Project No.: 2610023

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### 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.

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

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Yates Phase II  
Pace Project No.: 2610023

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2610023001	YGWA-1I	EPA 3005A	14926	EPA 6020B	14945
2610023002	YGWA-1D	EPA 3005A	14926	EPA 6020B	14945
2610023003	YGWA-2I	EPA 3005A	14926	EPA 6020B	14945
2610023004	YGWA-3I	EPA 3005A	14926	EPA 6020B	14945
2610023005	YGWA-3D	EPA 3005A	14926	EPA 6020B	14945
2610023006	YGWA-14S	EPA 3005A	14926	EPA 6020B	14945
2610023007	EB-1-10-1-18	EPA 3005A	14926	EPA 6020B	14945
2610023008	Dup-1	EPA 3005A	14926	EPA 6020B	14945
2610023009	FB-1-10-1-18	EPA 3005A	14926	EPA 6020B	14945
2610023010	YGWA-30I	EPA 3005A	14926	EPA 6020B	14945
2610023011	YGWC-27S	EPA 3005A	14926	EPA 6020B	14945
2610023012	YGWC-27I	EPA 3005A	14926	EPA 6020B	14945
2610023013	YGWC-26S	EPA 3005A	14926	EPA 6020B	14945
2610023014	YGWC-26I	EPA 3005A	14926	EPA 6020B	14945
2610023015	YGWC-29I	EPA 3005A	14926	EPA 6020B	14945
2610023016	YGWC-28S	EPA 3005A	14926	EPA 6020B	14945
2610023017	YGWC-28I	EPA 3005A	14926	EPA 6020B	14945
2610023018	EB-2-10-3-18	EPA 3005A	14926	EPA 6020B	14945
2610023019	Dup-2	EPA 3005A	14926	EPA 6020B	14945
2610023020	FB-2-10-2-18	EPA 3005A	14926	EPA 6020B	14945
2610023001	YGWA-1I	SM 2540C	14793		
2610023002	YGWA-1D	SM 2540C	14793		
2610023003	YGWA-2I	SM 2540C	14793		
2610023004	YGWA-3I	SM 2540C	14793		
2610023005	YGWA-3D	SM 2540C	14793		
2610023006	YGWA-14S	SM 2540C	14793		
2610023007	EB-1-10-1-18	SM 2540C	14793		
2610023008	Dup-1	SM 2540C	14793		
2610023009	FB-1-10-1-18	SM 2540C	14793		
2610023010	YGWA-30I	SM 2540C	14793		
2610023011	YGWC-27S	SM 2540C	14793		
2610023012	YGWC-27I	SM 2540C	14793		
2610023013	YGWC-26S	SM 2540C	14793		
2610023014	YGWC-26I	SM 2540C	14793		
2610023015	YGWC-29I	SM 2540C	14793		
2610023016	YGWC-28S	SM 2540C	14909		
2610023017	YGWC-28I	SM 2540C	14909		
2610023018	EB-2-10-3-18	SM 2540C	14909		
2610023019	Dup-2	SM 2540C	14909		
2610023020	FB-2-10-2-18	SM 2540C	14793		
2610023001	YGWA-1I	EPA 300.0	14978		
2610023002	YGWA-1D	EPA 300.0	14978		
2610023003	YGWA-2I	EPA 300.0	14978		
2610023004	YGWA-3I	EPA 300.0	14978		
2610023005	YGWA-3D	EPA 300.0	14978		
2610023006	YGWA-14S	EPA 300.0	14978		
2610023007	EB-1-10-1-18	EPA 300.0	14978		

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Yates Phase II

Pace Project No.: 2610023

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2610023008	Dup-1	EPA 300.0	14978		
2610023009	FB-1-10-1-18	EPA 300.0	14978		
2610023010	YGWA-30I	EPA 300.0	14978		
2610023011	YGWC-27S	EPA 300.0	14978		
2610023012	YGWC-27I	EPA 300.0	14978		
2610023013	YGWC-26S	EPA 300.0	14978		
2610023014	YGWC-26I	EPA 300.0	14978		
2610023015	YGWC-29I	EPA 300.0	14978		
2610023016	YGWC-28S	EPA 300.0	14978		
2610023017	YGWC-28I	EPA 300.0	14978		
2610023018	EB-2-10-3-18	EPA 300.0	14978		
2610023019	Dup-2	EPA 300.0	14978		
2610023020	FB-2-10-2-18	EPA 300.0	14978		

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

**CHAIN OF CUSTODY RECORD**

PAGE: ( OF 2

<b>CLIENT NAME:</b> Georgia Power <b>CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER:</b> 241 Ralph McGill Blvd SE B10185 Atlanta, GA 30308 404-506-7239		<b>REPORT TO:</b> Joju Abraham <b>CC:</b> Maria Padilla Heath McCorkle <b>PO #:</b> laburch@southernco.com <b>PROJECT NAME/STATE:</b> Plant Yates - Ash Pond 2		<b>PROJECT #:</b> Phase 2 CCR	
Collection DATE	Collection TIME	MATRIX CODE*	C O M P	G R A B	SAMPLE IDENTIFICATION
10-1-18	1525	GW	✓	✓	YGWA-1I
10-1-18	1240	GW	✓	✓	YGWA-1D
10-1-18	1055	GW	✓	✓	YGWA-2I
10-1-18	1355	GW	✓	✓	YGWA-3I
10-1-18	1205	GW	✓	✓	YGWA-3D
10-1-18	1535	GW	✓	✓	YGWA-14S
10-1-18	1215	W	✓	✓	EB-1-10-1-18
10-1-18	---	GW	✓	✓	DUP-1
10-1-18	1250	GW	✓	✓	FB-1-10-1-18
10-2-18	1035	GW	✓	✓	YGWA-30I
10-2-18	1235	GW	✓	✓	YGWC-27S
10-2-18	1335	GW	✓	✓	YGWC-27I
<b>SAMPLED BY AND TITLE:</b> <i>Shirley Parker, H. Hubbell</i> <b>RECEIVED BY:</b>					
<b>DATE/TIME:</b> 10-2-18 1800 <b>RELINQUISHED BY:</b> <i>[Signature]</i>		<b>DATE/TIME:</b> 10-3-18 1710 <b>RELINQUISHED BY:</b> <i>[Signature]</i>		<b>DATE/TIME:</b> 10-3-18 1710 <b>RELINQUISHED BY:</b> <i>[Signature]</i>	
<b>RECEIVED BY LAB:</b> <i>[Signature]</i> <b>Checked:</b> Yes No NA <b>Ice:</b> Yes No NA <b>Temperature:</b> Min 0 Max 3		<b>SAMPLE SHIPPED VIA:</b> UPS FED-EX USPS COURIER OTHER FS <b>Seal:</b> Intact Broken Not Present <b># of Coolers:</b>		<b>CLIENT:</b> <i>[Signature]</i> <b>OTHER:</b> FS <b>Tracking #:</b>	

**WO#: 2610023**  
  
 2610023

Yates Ash Pond 2 - Blank COCs.xlsx





Sample Condition Upon Receipt

Client Name: GIA Powere

Project # \_\_\_\_\_

WO#: **2610023**

PM: **BM**

Due Date: **10/11/18**

CLIENT: **GAPower-CCR**

Courier:  Fed Ex  UPS  USPS  Client  Commercial  Pace Other

Tracking #: \_\_\_\_\_

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

Packing Material:  Bubble Wrap  Bubble Bags  None  Other

Thermometer Used 83

Type of Ice: Wet Blue None

Samples on ice, cooling process has begun

Cooler Temperature 0.3

Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: 10/03/18 [initials]

Temp should be above freezing to 6°C

Comments:

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

Client Notification/ Resolution:

Field Data Required? Y / N

Person Contacted: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Comments/ Resolution: \_\_\_\_\_

Project Manager Review: \_\_\_\_\_

Date: \_\_\_\_\_

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

October 29, 2018

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

RE: Project: Plant Yates Phase II  
Pace Project No.: 2610024

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on October 03, 2018. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,



Betsy McDaniel  
betsy.mcdaniel@pacelabs.com  
(770)734-4200  
Project Manager

Enclosures

cc: Maria Padilla, Georgia Power  
Chris Parker, Atlantic Coast Consulting  
Evan Perry, Atlantic Coast Consulting  
Lauren Petty, Southern Company Services, Inc.  
Rebecca Thornton, Pace Analytical Atlanta



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: Plant Yates Phase II  
Pace Project No.: 2610024

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### Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601  
ANAB DOD-ELAP Rad Accreditation #: L2417  
Alabama Certification #: 41590  
Arizona Certification #: AZ0734  
Arkansas Certification  
California Certification #: 04222CA  
Colorado Certification #: PA01547  
Connecticut Certification #: PH-0694  
Delaware Certification  
EPA Region 4 DW Rad  
Florida/TNI Certification #: E87683  
Georgia Certification #: C040  
Guam Certification  
Hawaii Certification  
Idaho Certification  
Illinois Certification  
Indiana Certification  
Iowa Certification #: 391  
Kansas/TNI Certification #: E-10358  
Kentucky Certification #: KY90133  
KY WW Permit #: KY0098221  
KY WW Permit #: KY0000221  
Louisiana DHH/TNI Certification #: LA180012  
Louisiana DEQ/TNI Certification #: 4086  
Maine Certification #: 2017020  
Maryland Certification #: 308  
Massachusetts Certification #: M-PA1457  
Michigan/PADEP Certification #: 9991

Missouri Certification #: 235  
Montana Certification #: Cert0082  
Nebraska Certification #: NE-OS-29-14  
Nevada Certification #: PA014572018-1  
New Hampshire/TNI Certification #: 297617  
New Jersey/TNI Certification #: PA051  
New Mexico Certification #: PA01457  
New York/TNI Certification #: 10888  
North Carolina Certification #: 42706  
North Dakota Certification #: R-190  
Ohio EPA Rad Approval: #41249  
Oregon/TNI Certification #: PA200002-010  
Pennsylvania/TNI Certification #: 65-00282  
Puerto Rico Certification #: PA01457  
Rhode Island Certification #: 65-00282  
South Dakota Certification  
Tennessee Certification #: 02867  
Texas/TNI Certification #: T104704188-17-3  
Utah/TNI Certification #: PA014572017-9  
USDA Soil Permit #: P330-17-00091  
Vermont Dept. of Health: ID# VT-0282  
Virgin Island/PADEP Certification  
Virginia/VELAP Certification #: 9526  
Washington Certification #: C868  
West Virginia DEP Certification #: 143  
West Virginia DHHR Certification #: 9964C  
Wisconsin Approve List for Rad  
Wyoming Certification #: 8TMS-L

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## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: Plant Yates Phase II  
Pace Project No.: 2610024

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2610024001	YGWA-1I	Water	10/01/18 15:25	10/03/18 17:10
2610024002	YGWA-1D	Water	10/01/18 12:40	10/03/18 17:10
2610024003	YGWA-2I	Water	10/01/18 10:55	10/03/18 17:10
2610024004	YGWA-3I	Water	10/01/18 13:55	10/03/18 17:10
2610024005	YGWA-3D	Water	10/01/18 12:05	10/03/18 17:10
2610024006	YGWA-14S	Water	10/01/18 15:35	10/03/18 17:10
2610024007	EB-1-10-1-18	Water	10/01/18 12:15	10/03/18 17:10
2610024008	Dup-1	Water	10/01/18 00:00	10/03/18 17:10
2610024009	FB-1-10-1-18	Water	10/01/18 12:50	10/03/18 17:10
2610024010	YGWA-30I	Water	10/02/18 10:35	10/03/18 17:10
2610024011	YGWC-27S	Water	10/02/18 12:35	10/03/18 17:10
2610024012	YGWC-27I	Water	10/02/18 13:35	10/03/18 17:10
2610024013	YGWC-26S	Water	10/02/18 10:55	10/03/18 17:10
2610024014	YGWC-26I	Water	10/02/18 12:25	10/03/18 17:10
2610024015	YGWC-29I	Water	10/02/18 13:55	10/03/18 17:10
2610024016	YGWC-28S	Water	10/03/18 13:15	10/03/18 17:10
2610024017	YGWC-28I	Water	10/03/18 11:00	10/03/18 17:10
2610024018	EB-2-10-3-18	Water	10/03/18 09:40	10/03/18 17:10
2610024019	Dup-2	Water	10/03/18 00:00	10/03/18 17:10
2610024020	FB-2-10-2-18	Water	10/02/18 13:50	10/03/18 17:10

## REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: Plant Yates Phase II  
Pace Project No.: 2610024

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2610024001	YGWA-1I	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2610024002	YGWA-1D	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2610024003	YGWA-2I	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2610024004	YGWA-3I	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2610024005	YGWA-3D	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2610024006	YGWA-14S	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2610024007	EB-1-10-1-18	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2610024008	Dup-1	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2610024009	FB-1-10-1-18	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2610024010	YGWA-30I	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2610024011	YGWC-27S	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2610024012	YGWC-27I	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2610024013	YGWC-26S	EPA 9315	LAL	1	PASI-PA

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### SAMPLE ANALYTE COUNT

Project: Plant Yates Phase II  
Pace Project No.: 2610024

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2610024014	YGWC-26I	EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
2610024015	YGWC-29I	Total Radium Calculation	CMC	1	PASI-PA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2610024016	YGWC-28S	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		EPA 9315	LAL	1	PASI-PA
2610024017	YGWC-28I	EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
2610024018	EB-2-10-3-18	Total Radium Calculation	CMC	1	PASI-PA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2610024019	Dup-2	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		EPA 9315	LAL	1	PASI-PA
2610024020	FB-2-10-2-18	EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Phase II

Pace Project No.: 2610024

**Sample: YGWA-1I**      **Lab ID: 2610024001**      Collected: 10/01/18 15:25      Received: 10/03/18 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	<b>0.266 ± 0.214 (0.400)</b> C:92% T:NA	pCi/L	10/17/18 09:35	13982-63-3	
Radium-228	EPA 9320	<b>0.795 ± 0.416 (0.725)</b> C:78% T:79%	pCi/L	10/18/18 16:11	15262-20-1	
Total Radium	Total Radium Calculation	<b>1.06 ± 0.630 (1.13)</b>	pCi/L	10/22/18 12:51	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Phase II

Pace Project No.: 2610024

Sample: YGWA-1D		Lab ID: 2610024002	Collected: 10/01/18 12:40	Received: 10/03/18 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	<b>0.107 ± 0.145 (0.308)</b>		pCi/L	10/17/18 10:01	13982-63-3	
		<b>C:92% T:NA</b>					
Radium-228	EPA 9320	<b>0.676 ± 0.390 (0.704)</b>		pCi/L	10/18/18 16:11	15262-20-1	
		<b>C:77% T:82%</b>					
Total Radium	Total Radium Calculation	<b>0.783 ± 0.535 (1.01)</b>		pCi/L	10/22/18 12:51	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Phase II

Pace Project No.: 2610024

**Sample: YGWA-2I**      **Lab ID: 2610024003**      Collected: 10/01/18 10:55      Received: 10/03/18 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	<b>0.0778 ± 0.128 (0.283)</b> C:91% T:NA	pCi/L	10/17/18 10:01	13982-63-3	
Radium-228	EPA 9320	<b>0.678 ± 0.374 (0.662)</b> C:73% T:88%	pCi/L	10/18/18 16:10	15262-20-1	
Total Radium	Total Radium Calculation	<b>0.756 ± 0.502 (0.945)</b>	pCi/L	10/22/18 12:29	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Phase II

Pace Project No.: 2610024

**Sample: YGWA-3I**      **Lab ID: 2610024004**      Collected: 10/01/18 13:55      Received: 10/03/18 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	<b>0.686 ± 0.263 (0.240)</b> C:94% T:NA	pCi/L	10/17/18 09:35	13982-63-3	
Radium-228	EPA 9320	<b>0.892 ± 0.419 (0.693)</b> C:77% T:81%	pCi/L	10/18/18 16:11	15262-20-1	
Total Radium	Total Radium Calculation	<b>1.58 ± 0.682 (0.933)</b>	pCi/L	10/22/18 12:51	7440-14-4	

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## ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Phase II

Pace Project No.: 2610024

Sample: YGWA-3D		Lab ID: 2610024005	Collected: 10/01/18 12:05	Received: 10/03/18 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	<b>1.09 ± 0.341 (0.261)</b>		pCi/L	10/17/18 10:01	13982-63-3	
		<b>C:98% T:NA</b>					
Radium-228	EPA 9320	<b>2.05 ± 0.603 (0.679)</b>		pCi/L	10/18/18 16:10	15262-20-1	
		<b>C:75% T:80%</b>					
Total Radium	Total Radium Calculation	<b>3.14 ± 0.944 (0.940)</b>		pCi/L	10/22/18 12:29	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Phase II

Pace Project No.: 2610024

**Sample: YGWA-14S**      **Lab ID: 2610024006**      Collected: 10/01/18 15:35      Received: 10/03/18 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	<b>0.270 ± 0.173 (0.251)</b> C:97% T:NA	pCi/L	10/17/18 09:35	13982-63-3	
Radium-228	EPA 9320	<b>0.970 ± 0.429 (0.682)</b> C:75% T:81%	pCi/L	10/18/18 16:11	15262-20-1	
Total Radium	Total Radium Calculation	<b>1.24 ± 0.602 (0.933)</b>	pCi/L	10/22/18 12:51	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Phase II

Pace Project No.: 2610024

**Sample: EB-1-10-1-18**      **Lab ID: 2610024007**      Collected: 10/01/18 12:15      Received: 10/03/18 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	<b>0.0858 ± 0.141 (0.315)</b> C:97% T:NA	pCi/L	10/17/18 10:01	13982-63-3	
Radium-228	EPA 9320	<b>0.126 ± 0.301 (0.671)</b> C:77% T:83%	pCi/L	10/18/18 16:11	15262-20-1	
Total Radium	Total Radium Calculation	<b>0.212 ± 0.442 (0.986)</b>	pCi/L	10/22/18 12:51	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Phase II

Pace Project No.: 2610024

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	<b>0.225 ± 0.170 (0.274)</b> C:86% T:NA	pCi/L	10/17/18 10:01	13982-63-3	
Radium-228	EPA 9320	<b>0.135 ± 0.296 (0.659)</b> C:72% T:84%	pCi/L	10/18/18 16:10	15262-20-1	
Total Radium	Total Radium Calculation	<b>0.360 ± 0.466 (0.933)</b>	pCi/L	10/22/18 12:29	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Phase II

Pace Project No.: 2610024

**Sample: FB-1-10-1-18**      **Lab ID: 2610024009**      Collected: 10/01/18 12:50      Received: 10/03/18 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	<b>0.227 ± 0.166 (0.269)</b> C:97% T:NA	pCi/L	10/17/18 10:01	13982-63-3	
Radium-228	EPA 9320	<b>0.498 ± 0.370 (0.719)</b> C:76% T:83%	pCi/L	10/18/18 16:11	15262-20-1	
Total Radium	Total Radium Calculation	<b>0.725 ± 0.536 (0.988)</b>	pCi/L	10/22/18 12:51	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Phase II

Pace Project No.: 2610024

**Sample: YGWA-30I**      **Lab ID: 2610024010**      Collected: 10/02/18 10:35      Received: 10/03/18 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	<b>0.0414 ± 0.122 (0.300)</b> C:97% T:NA	pCi/L	10/17/18 09:35	13982-63-3	
Radium-228	EPA 9320	<b>0.929 ± 0.441 (0.749)</b> C:75% T:84%	pCi/L	10/18/18 16:11	15262-20-1	
Total Radium	Total Radium Calculation	<b>0.970 ± 0.563 (1.05)</b>	pCi/L	10/22/18 12:51	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Phase II

Pace Project No.: 2610024

**Sample: YGWC-27S**      **Lab ID: 2610024011**      Collected: 10/02/18 12:35      Received: 10/03/18 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	<b>0.278 ± 0.209 (0.375)</b> C:88% T:NA	pCi/L	10/17/18 09:36	13982-63-3	
Radium-228	EPA 9320	<b>0.496 ± 0.570 (1.20)</b> C:78% T:81%	pCi/L	10/18/18 19:47	15262-20-1	
Total Radium	Total Radium Calculation	<b>0.774 ± 0.779 (1.58)</b>	pCi/L	10/22/18 12:51	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Phase II

Pace Project No.: 2610024

**Sample: YGWC-271**      **Lab ID: 2610024012**      Collected: 10/02/18 13:35      Received: 10/03/18 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	<b>3.09 ± 0.683 (0.283)</b> C:91% T:NA	pCi/L	10/17/18 09:36	13982-63-3	
Radium-228	EPA 9320	<b>1.41 ± 0.677 (1.17)</b> C:73% T:86%	pCi/L	10/18/18 19:48	15262-20-1	
Total Radium	Total Radium Calculation	<b>4.50 ± 1.36 (1.45)</b>	pCi/L	10/22/18 12:51	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Phase II

Pace Project No.: 2610024

**Sample: YGWC-26S**      **Lab ID: 2610024013**      Collected: 10/02/18 10:55      Received: 10/03/18 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	<b>0.196 ± 0.175 (0.326)</b> C:91% T:NA	pCi/L	10/17/18 09:35	13982-63-3	
Radium-228	EPA 9320	<b>0.551 ± 0.680 (1.44)</b> C:73% T:75%	pCi/L	10/18/18 19:49	15262-20-1	
Total Radium	Total Radium Calculation	<b>0.747 ± 0.855 (1.77)</b>	pCi/L	10/22/18 12:51	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Phase II

Pace Project No.: 2610024

**Sample: YGWC-261**      **Lab ID: 2610024014**      Collected: 10/02/18 12:25      Received: 10/03/18 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	<b>0.194 ± 0.170 (0.304)</b> C:83% T:NA	pCi/L	10/17/18 09:35	13982-63-3	
Radium-228	EPA 9320	<b>1.22 ± 0.690 (1.27)</b> C:78% T:79%	pCi/L	10/18/18 19:47	15262-20-1	
Total Radium	Total Radium Calculation	<b>1.41 ± 0.860 (1.57)</b>	pCi/L	10/22/18 12:51	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Phase II

Pace Project No.: 2610024

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	<b>0.327 ± 0.191 (0.258)</b> C:95% T:NA	pCi/L	10/17/18 09:36	13982-63-3	
Radium-228	EPA 9320	<b>0.115 ± 0.482 (1.10)</b> C:79% T:84%	pCi/L	10/18/18 19:48	15262-20-1	
Total Radium	Total Radium Calculation	<b>0.442 ± 0.673 (1.36)</b>	pCi/L	10/22/18 12:51	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Phase II

Pace Project No.: 2610024

**Sample: YGWC-28S**      **Lab ID: 2610024016**      Collected: 10/03/18 13:15      Received: 10/03/18 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	<b>0.246 ± 0.159 (0.262)</b> C:96% T:NA	pCi/L	10/16/18 07:52	13982-63-3	
Radium-228	EPA 9320	<b>0.467 ± 0.363 (0.721)</b> C:76% T:95%	pCi/L	10/19/18 15:49	15262-20-1	
Total Radium	Total Radium Calculation	<b>0.713 ± 0.522 (0.983)</b>	pCi/L	10/22/18 12:51	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Phase II

Pace Project No.: 2610024

**Sample: YGWC-28I**      **Lab ID: 2610024017**      Collected: 10/03/18 11:00      Received: 10/03/18 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	<b>0.161 ± 0.128 (0.226)</b> C:92% T:NA	pCi/L	10/16/18 07:52	13982-63-3	
Radium-228	EPA 9320	<b>0.703 ± 0.420 (0.781)</b> C:74% T:87%	pCi/L	10/19/18 15:49	15262-20-1	
Total Radium	Total Radium Calculation	<b>0.864 ± 0.548 (1.01)</b>	pCi/L	10/22/18 12:51	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Phase II

Pace Project No.: 2610024

**Sample: EB-2-10-3-18**      **Lab ID: 2610024018**      Collected: 10/03/18 09:40      Received: 10/03/18 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	<b>0.0701 ± 0.120 (0.269)</b> C:98% T:NA	pCi/L	10/17/18 09:36	13982-63-3	
Radium-228	EPA 9320	<b>0.769 ± 0.517 (0.979)</b> C:76% T:88%	pCi/L	10/18/18 19:48	15262-20-1	
Total Radium	Total Radium Calculation	<b>0.839 ± 0.637 (1.25)</b>	pCi/L	10/22/18 12:51	7440-14-4	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Phase II

Pace Project No.: 2610024

**Sample: Dup-2**      **Lab ID: 2610024019**      Collected: 10/03/18 00:00      Received: 10/03/18 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	<b>0.209 ± 0.212 (0.413)</b> <b>C:73% T:NA</b>	pCi/L	10/17/18 09:36	13982-63-3	
Radium-228	EPA 9320	<b>0.000523 ± 0.479 (1.12)</b> <b>C:74% T:88%</b>	pCi/L	10/18/18 19:48	15262-20-1	
Total Radium	Total Radium Calculation	<b>0.210 ± 0.691 (1.53)</b>	pCi/L	10/22/18 12:51	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Yates Phase II

Pace Project No.: 2610024

**Sample: FB-2-10-2-18**      **Lab ID: 2610024020**      Collected: 10/02/18 13:50      Received: 10/03/18 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	<b>0.117 ± 0.142 (0.289)</b> C:91% T:NA	pCi/L	10/17/18 09:36	13982-63-3	
Radium-228	EPA 9320	<b>1.48 ± 0.770 (1.38)</b> C:77% T:76%	pCi/L	10/18/18 19:48	15262-20-1	
Total Radium	Total Radium Calculation	<b>1.60 ± 0.912 (1.67)</b>	pCi/L	10/22/18 12:51	7440-14-4	

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Yates Phase II

Pace Project No.: 2610024

QC Batch: 315903

Analysis Method: EPA 9320

QC Batch Method: EPA 9320

Analysis Description: 9320 Radium 228

Associated Lab Samples: 2610024001, 2610024002, 2610024003, 2610024004, 2610024005, 2610024006, 2610024007, 2610024008, 2610024009, 2610024010, 2610024011, 2610024012, 2610024013, 2610024014, 2610024015, 2610024018, 2610024019, 2610024020

METHOD BLANK: 1541952

Matrix: Water

Associated Lab Samples: 2610024001, 2610024002, 2610024003, 2610024004, 2610024005, 2610024006, 2610024007, 2610024008, 2610024009, 2610024010, 2610024011, 2610024012, 2610024013, 2610024014, 2610024015, 2610024018, 2610024019, 2610024020

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.882 ± 0.409 (0.676) C:77% T:84%	pCi/L	10/18/18 16:11	

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

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Yates Phase II

Pace Project No.: 2610024

QC Batch: 315902 Analysis Method: EPA 9315

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

Associated Lab Samples: 2610024001, 2610024002, 2610024003, 2610024004, 2610024005, 2610024006, 2610024007, 2610024008, 2610024009, 2610024010, 2610024011, 2610024012, 2610024013, 2610024014, 2610024015, 2610024018, 2610024019, 2610024020

METHOD BLANK: 1541951 Matrix: Water

Associated Lab Samples: 2610024001, 2610024002, 2610024003, 2610024004, 2610024005, 2610024006, 2610024007, 2610024008, 2610024009, 2610024010, 2610024011, 2610024012, 2610024013, 2610024014, 2610024015, 2610024018, 2610024019, 2610024020

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0238 ± 0.0883 (0.229) C:97% T:NA	pCi/L	10/17/18 10:01	

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Yates Phase II

Pace Project No.: 2610024

QC Batch: 316253

Analysis Method: EPA 9320

QC Batch Method: EPA 9320

Analysis Description: 9320 Radium 228

Associated Lab Samples: 2610024016, 2610024017

METHOD BLANK: 1543390

Matrix: Water

Associated Lab Samples: 2610024016, 2610024017

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.293 ± 0.309 (0.637) C:77% T:81%	pCi/L	10/19/18 11:16	

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

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Yates Phase II

Pace Project No.: 2610024

QC Batch: 316159

Analysis Method: EPA 9315

QC Batch Method: EPA 9315

Analysis Description: 9315 Total Radium

Associated Lab Samples: 2610024016, 2610024017

METHOD BLANK: 1542939

Matrix: Water

Associated Lab Samples: 2610024016, 2610024017

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.285 ± 0.169 (0.276) C:102% T:NA	pCi/L	10/16/18 07:27	

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

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## QUALIFIERS

Project: Plant Yates Phase II  
Pace Project No.: 2610024

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### DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

Act - Activity

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

Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

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

TNI - The NELAC Institute.

### LABORATORIES

PASI-PA Pace Analytical Services - Greensburg

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Yates Phase II  
Pace Project No.: 2610024

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2610024001	YGWA-1I	EPA 9315	315902		
2610024002	YGWA-1D	EPA 9315	315902		
2610024003	YGWA-2I	EPA 9315	315902		
2610024004	YGWA-3I	EPA 9315	315902		
2610024005	YGWA-3D	EPA 9315	315902		
2610024006	YGWA-14S	EPA 9315	315902		
2610024007	EB-1-10-1-18	EPA 9315	315902		
2610024008	Dup-1	EPA 9315	315902		
2610024009	FB-1-10-1-18	EPA 9315	315902		
2610024010	YGWA-30I	EPA 9315	315902		
2610024011	YGWC-27S	EPA 9315	315902		
2610024012	YGWC-27I	EPA 9315	315902		
2610024013	YGWC-26S	EPA 9315	315902		
2610024014	YGWC-26I	EPA 9315	315902		
2610024015	YGWC-29I	EPA 9315	315902		
2610024016	YGWC-28S	EPA 9315	316159		
2610024017	YGWC-28I	EPA 9315	316159		
2610024018	EB-2-10-3-18	EPA 9315	315902		
2610024019	Dup-2	EPA 9315	315902		
2610024020	FB-2-10-2-18	EPA 9315	315902		
2610024001	YGWA-1I	EPA 9320	315903		
2610024002	YGWA-1D	EPA 9320	315903		
2610024003	YGWA-2I	EPA 9320	315903		
2610024004	YGWA-3I	EPA 9320	315903		
2610024005	YGWA-3D	EPA 9320	315903		
2610024006	YGWA-14S	EPA 9320	315903		
2610024007	EB-1-10-1-18	EPA 9320	315903		
2610024008	Dup-1	EPA 9320	315903		
2610024009	FB-1-10-1-18	EPA 9320	315903		
2610024010	YGWA-30I	EPA 9320	315903		
2610024011	YGWC-27S	EPA 9320	315903		
2610024012	YGWC-27I	EPA 9320	315903		
2610024013	YGWC-26S	EPA 9320	315903		
2610024014	YGWC-26I	EPA 9320	315903		
2610024015	YGWC-29I	EPA 9320	315903		
2610024016	YGWC-28S	EPA 9320	316253		
2610024017	YGWC-28I	EPA 9320	316253		
2610024018	EB-2-10-3-18	EPA 9320	315903		
2610024019	Dup-2	EPA 9320	315903		
2610024020	FB-2-10-2-18	EPA 9320	315903		
2610024001	YGWA-1I	Total Radium Calculation	317518		
2610024002	YGWA-1D	Total Radium Calculation	317518		
2610024003	YGWA-2I	Total Radium Calculation	317515		
2610024004	YGWA-3I	Total Radium Calculation	317518		

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**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Project: Plant Yates Phase II  
Pace Project No.: 2610024

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2610024005	YGWA-3D	Total Radium Calculation	317515		
2610024006	YGWA-14S	Total Radium Calculation	317518		
2610024007	EB-1-10-1-18	Total Radium Calculation	317518		
2610024008	Dup-1	Total Radium Calculation	317515		
2610024009	FB-1-10-1-18	Total Radium Calculation	317518		
2610024010	YGWA-30I	Total Radium Calculation	317518		
2610024011	YGWC-27S	Total Radium Calculation	317518		
2610024012	YGWC-27I	Total Radium Calculation	317518		
2610024013	YGWC-26S	Total Radium Calculation	317518		
2610024014	YGWC-26I	Total Radium Calculation	317518		
2610024015	YGWC-29I	Total Radium Calculation	317518		
2610024016	YGWC-28S	Total Radium Calculation	317518		
2610024017	YGWC-28I	Total Radium Calculation	317518		
2610024018	EB-2-10-3-18	Total Radium Calculation	317518		
2610024019	Dup-2	Total Radium Calculation	317518		
2610024020	FB-2-10-2-18	Total Radium Calculation	317518		

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

**CHAIN OF CUSTODY RECORD**

PAGE: ( OF Z

<b>CLIENT NAME:</b> Georgia Power <b>CLIENT ADDRESS/PHONE NUMBER/FAX NUMBER:</b> 241 Ralph McGill Blvd SE B10185 Atlanta, GA 30308 404-506-7239 <b>REPORT TO:</b> Joju Abraham <b>REQUESTED COMPLETION DATE:</b> Heath McCorkle <b>PROJECT NAME/STATE:</b> laburch@southernco.com Plant Yates - Ash Pond 2 <b>PROJECT #:</b> Phase 2 CCR		<b>CONTAINER TYPE:</b> P 3 <b>PRESERVATION:</b> 3 7 3 <b># of CONTAINERS:</b> 3 7 3		<b>ANALYSIS REQUESTED:</b> Metals App III (EPA 6020/470) <input checked="" type="checkbox"/> Boron, Calcium <input checked="" type="checkbox"/> Cl, F, SO <sub>4</sub> & TDS (EPA 300.0 & SM 2540C) <input checked="" type="checkbox"/> Detected App III <input checked="" type="checkbox"/> As, Ba, Co, Li, Mo <input checked="" type="checkbox"/> Redium <input checked="" type="checkbox"/> 226 + 228 <input checked="" type="checkbox"/>		<b>CONTAINER TYPE:</b> P - PLASTIC A - AMBER GLASS G - CLEAR GLASS V - VOA VIAL S - STERILE O - OTHER <b>PRESERVATION:</b> 1 - HCl, ≤6°C 2 - H <sub>2</sub> SO <sub>4</sub> , ≤6°C 3 - HNO <sub>3</sub> 4 - NaOH, ≤6°C 5 - NaOH/ZnAc, ≤6°C 6 - Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> , ≤6°C 7 - ≤6°C not frozen	
<b>RECEIVED BY:</b> H.A. Anderson DATE/TIME: 10-2-18 1800 RECEIVED BY: H.A. Anderson DATE/TIME: 10-2-18 1800		<b>RELINQUISHED BY:</b> [Signature] DATE/TIME: 10-3-18 1710 <b>RELINQUISHED BY:</b> [Signature] DATE/TIME: 10-3-18 1710		<b>SAMPLE SHIPPED VIA:</b> UPS <input checked="" type="checkbox"/> FED-EX <input type="checkbox"/> USPS <input type="checkbox"/> <b>COURIER:</b> [Signature] <b># of Coolers:</b> 0 <b>Not Present:</b> <input type="checkbox"/>		<b>CLIENT:</b> OTHER FS <b>Tracking #:</b>	
<b>RECEIVED BY LAB:</b> H.A. Anderson DATE/TIME: 10/3/18 1710 Temperature: 10.3 Max.		<b>RECEIVED BY:</b> [Signature] DATE/TIME: 10-3-18 1710		<b>DATE/TIME:</b> 10-3-18 1710		<b>DATE/TIME:</b> 10-3-18 1710	

**WO#: 2610024**

2610024

Yates Ash Pond 2 - Blank COCs.xlsx





### Sample Condition Upon Receipt

Client Name: GIA Power

Project # \_\_\_\_\_

**WO#: 2610024**

PM: BM

Due Date: 11/01/18

CLIENT: CAPower-CCR

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

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

Packing Material:  Bubble Wrap  Bubble Bags  None  Other

Thermometer Used 83 Type of Ice: Wet Blue None  Samples on ice, cooling process has begun

Cooler Temperature 0.3 Biological Tissue is Frozen: Yes No

Temp should be above freezing to 6°C

Date and Initials of person examining contents: 10/03/18 *mp*

Comments:

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

**Client Notification/ Resolution:** \_\_\_\_\_ Date/Time: \_\_\_\_\_ Field Data Required? Y / N

Person Contacted: \_\_\_\_\_

Comments/ Resolution: \_\_\_\_\_

**Project Manager Review:** \_\_\_\_\_ **Date:** \_\_\_\_\_

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

Product Name: Low-Flow System

Date: 2018-10-01 15:25:34

Project Information:

Operator Name Chris Parker  
Company Name ACC  
Project Name Plant Yates - Ash Pond  
Site Name Plant Yates - Ash Ponds  
Latitude 33° 27' 46.22"  
Longitude -84° -53' -53.23"  
Sonde SN 466086  
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type QED  
Tubing Type Bladder  
Tubing Diameter .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 36.90 ft

Pumping Information:

Final Pumping Rate 60 mL/min  
Total System Volume 1.0159 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 18 in  
Total Volume Pumped 8.1 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	15:02:25	6622.97	19.41	5.95	60.03	2.45	38.30	3.03	21.42
Last 5	15:07:27	6924.97	19.43	5.94	58.81	3.21	38.30	3.33	23.05
Last 5	15:12:31	7228.96	19.26	5.90	58.36	2.65	38.40	3.64	26.12
Last 5	15:17:32	7529.96	19.46	5.93	58.01	2.13	38.40	3.81	25.91
Last 5	15:22:33	7830.95	19.47	5.90	57.41	2.43	38.40	3.94	28.92
Variance 0			-0.17	-0.04	-0.45			0.30	3.07
Variance 1			0.19	0.03	-0.36			0.17	-0.21
Variance 2			0.01	-0.03	-0.60			0.13	3.02

Notes

Collected at 15:25. Sunny 80s.

Grab Samples

Product Name: Low-Flow System

Date: 2018-10-01 12:41:16

Project Information:

Operator Name Chris Parker  
Company Name ACC  
Project Name Plant Yates - Ash Pond  
Site Name Plant Yates - Ash Ponds  
Latitude 33° 27' 46.22"  
Longitude -84° -53' -53.23"  
Sonde SN 466086  
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type QED  
Tubing Type Bladder  
Tubing Diameter .25 in  
Tubing Length 107 ft

Pump placement from TOC 103 ft

Well Information:

Well ID YGWA-1D  
Well diameter 2 in  
Well Total Depth 128.6 ft  
Screen Length 10 ft  
Depth to Water 49.63 ft

Pumping Information:

Final Pumping Rate 130 mL/min  
Total System Volume 1.517842 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 1 in  
Total Volume Pumped 4.6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	12:18:26	600.06	18.92	6.62	154.23	1.80	49.70	1.95	3.58
Last 5	12:23:26	900.06	18.57	6.85	166.15	1.62	49.70	0.59	-12.20
Last 5	12:28:26	1200.06	18.61	6.83	169.15	1.21	49.70	0.38	-22.66
Last 5	12:33:26	1500.03	18.57	6.86	169.10	1.67	49.70	0.30	-32.43
Last 5	12:38:28	1802.05	18.51	6.80	169.03	1.44	49.70	0.25	-34.54
Variance 0			0.04	-0.02	3.00			-0.21	-10.45
Variance 1			-0.04	0.02	-0.04			-0.08	-9.77
Variance 2			-0.06	-0.06	-0.07			-0.05	-2.11

Notes

Collected at 12:40. Sunny 80s. EB 1 here at 12:15

Grab Samples

Product Name: Low-Flow System

Date: 2018-10-01 10:52:49

Project Information:

Operator Name Chris Parker  
Company Name ACC  
Project Name Plant Yates - Ash Pond  
Site Name Plant Yates - Ash Ponds  
Latitude 33° 27' 46.22"  
Longitude -84° -53' -53.23"  
Sonde SN 466086  
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type QED  
Tubing Type Bladder  
Tubing Diameter .25 in  
Tubing Length 65 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 44.78 ft

Pumping Information:

Final Pumping Rate 60 mL/min  
Total System Volume 1.112427 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 15 in  
Total Volume Pumped 3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	10:30:32	1200.04	19.28	7.19	221.89	1.98	45.60	2.60	4.46
Last 5	10:35:32	1500.06	19.15	7.12	223.67	2.41	45.70	1.49	5.59
Last 5	10:40:32	1800.11	19.08	7.09	224.28	1.89	45.80	1.00	0.74
Last 5	10:45:32	2100.06	19.14	7.06	223.84	1.93	45.90	0.93	-1.56
Last 5	10:50:33	2401.04	19.28	7.07	224.04	1.76	46.00	0.94	-4.82
Variance 0			-0.07	-0.04	0.61			-0.49	-4.86
Variance 1			0.06	-0.03	-0.44			-0.07	-2.29
Variance 2			0.14	0.01	0.19			0.01	-3.27

Notes

Collected at 10:55. Sunny 70s.

Grab Samples

Product Name: Low-Flow System

Date: 2018-10-01 13:57:07

Project Information:

Operator Name H Auld  
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 466058  
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/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 53.55 ft

Pumping Information:

Final Pumping Rate 160 mL/min  
Total System Volume 1.064164 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 0 in  
Total Volume Pumped 11.8 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 10
Last 5	13:35:09	3005.04	20.84	7.45	202.30	2.56	--	9.28	-25.58
Last 5	13:40:09	3305.04	20.71	7.46	200.84	--	--	9.22	-30.56
Last 5	13:45:09	3605.03	20.80	7.46	180.92	2.43	--	9.20	-33.44
Last 5	13:50:10	3906.03	20.54	7.46	200.10	1.84	--	9.28	-38.11
Last 5	13:55:10	4206.02	20.43	7.47	197.88	2.53	--	9.55	-38.05
Variance 0			0.09	0.00	-19.91			-0.02	-2.88
Variance 1			-0.26	0.00	19.18			0.08	-4.68
Variance 2			-0.11	0.01	-2.22			0.27	0.07

Notes

Water level below top of pump; unable to monitor water level. Sampled at 1355 on 10-1-18. Sunny 80s. FB-1-10-1-18 poured here at 1250.

Grab Samples

Product Name: Low-Flow System

Date: 2018-10-01 12:07:07

Project Information:

Operator Name H Auld  
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 466058  
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED Bladder  
Tubing Type poly  
Tubing Diameter .25 in  
Tubing Length 117 ft

Pump placement from TOC 112 ft

Well Information:

Well ID YGWA-3D  
Well diameter 2 in  
Well Total Depth 137.1 ft  
Screen Length 10 ft  
Depth to Water 32.46 ft

Pumping Information:

Final Pumping Rate 140 mL/min  
Total System Volume 1.817077 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 0.5 in  
Total Volume Pumped 4.9 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 10
Last 5	11:45:58	900.01	19.49	7.12	219.92	1.47	32.50	0.11	2.06
Last 5	11:50:58	1200.01	19.86	7.23	218.48	1.35	32.50	0.09	1.57
Last 5	11:55:59	1501.00	19.77	7.30	219.39	1.26	32.50	0.09	-6.92
Last 5	12:01:00	1802.00	19.86	7.35	218.67	1.47	32.50	0.11	-16.61
Last 5	12:06:00	2101.99	19.88	7.39	219.18	1.14	32.50	0.11	-24.51
Variance 0			-0.09	0.07	0.90			-0.00	-8.49
Variance 1			0.09	0.05	-0.72			0.02	-9.68
Variance 2			0.02	0.04	0.51			0.01	-7.91

Notes

Sampled at 1205 on 10-1-18. Sunny 80s.

Grab Samples

Product Name: Low-Flow System

Date: 2018-10-01 15:43:44

Project Information:

Operator Name H Auld  
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 466058  
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED Bladder  
Tubing Type poly  
Tubing Diameter .25 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 18.63 ft

Pumping Information:

Final Pumping Rate 200 mL/min  
Total System Volume 0.8324984 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 6.84 in  
Total Volume Pumped 6.3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 10
Last 5	15:17:18	600.02	21.27	5.61	55.32	1.85	19.00	6.53	161.49
Last 5	15:22:18	900.01	20.95	5.46	55.29	1.89	19.10	6.41	171.97
Last 5	15:27:18	1200.01	20.57	5.42	55.38	4.18	19.10	6.37	178.55
Last 5	15:32:18	1500.00	20.89	5.40	55.06	1.78	19.10	6.42	181.21
Last 5	15:37:18	1800.00	20.81	5.39	55.31	1.73	19.20	6.31	183.05
Variance 0			-0.37	-0.04	0.09			-0.04	6.59
Variance 1			0.31	-0.02	-0.32			0.05	2.66
Variance 2			-0.08	-0.01	0.25			-0.11	1.84

Notes

Sampled at 1535 on 10-1-18. Sunny 80s. Dup-1 sampled here.

Grab Samples

Product Name: Low-Flow System

Date: 2018-10-02 10:31:06

Project Information:

Operator Name Chris Parker  
Company Name ACC  
Project Name Plant Yates - Ash Pond  
Site Name Plant Yates - Ash Ponds  
Latitude 33° 27' 46.22"  
Longitude -84° -53' -53.23"  
Sonde SN 466086  
Turbidity Make/Model Hach 2100 Q

Pump Information:

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

Pump placement from TOC 55 ft

Well Information:

Well ID YGWA-30I  
Well diameter 2 in  
Well Total Depth 59.65 ft  
Screen Length 10 ft  
Depth to Water 37.23 ft

Pumping Information:

Final Pumping Rate 130 mL/min  
Total System Volume 1.064164 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 1 in  
Total Volume Pumped 8.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	10:09:23	2100.04	17.54	5.66	40.56	1.11	37.30	7.22	103.07
Last 5	10:14:23	2400.04	17.73	5.58	40.11	1.45	37.30	7.15	99.64
Last 5	10:19:24	2701.04	17.90	5.47	40.16	1.24	37.30	7.15	100.79
Last 5	10:24:24	3001.03	17.90	5.40	40.14	1.19	37.30	7.21	101.48
Last 5	10:29:24	3301.03	17.89	5.39	39.87	1.05	37.30	7.13	101.35
Variance 0			0.18	-0.11	0.06			-0.01	1.15
Variance 1			-0.01	-0.08	-0.03			0.06	0.69
Variance 2			-0.00	-0.01	-0.27			-0.08	-0.13

Notes

Collected at 10:35. Sunny 70s.

Grab Samples

Product Name: Low-Flow System

Date: 2018-10-02 10:56:47

Project Information:

Operator Name H Auld  
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 466058  
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED Bladder  
Tubing Type poly  
Tubing Diameter .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 21.22 ft

Pumping Information:

Final Pumping Rate 100 mL/min  
Total System Volume 0.880762 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 10.56 in  
Total Volume Pumped 4.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 10
Last 5	10:30:36	1200.05	20.92	4.84	262.29	6.31	22.10	3.03	199.31
Last 5	10:35:37	1501.06	21.19	4.88	263.07	5.60	22.10	2.82	194.73
Last 5	10:45:47	2111.04	21.73	4.92	265.10	4.53	22.10	2.60	187.82
Last 5	10:50:47	2411.04	21.48	4.94	265.27	4.98	22.10	2.56	184.85
Last 5	10:55:51	2715.03	21.31	4.95	265.84	4.74	22.10	2.54	179.29
Variance 0			0.55	0.04	2.03			-0.22	-6.92
Variance 1			-0.26	0.02	0.18			-0.04	-2.97
Variance 2			-0.17	0.01	0.57			-0.02	-5.55

Notes

Sampled at 1055 on 10-2-18. Sunny 80s.

Grab Samples

Product Name: Low-Flow System

Date: 2018-10-02 12:30:26

Project Information:

Operator Name H Auld  
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 466058  
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED Bladder  
Tubing Type poly  
Tubing Diameter .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 24.76 ft

Pumping Information:

Final Pumping Rate 125 mL/min  
Total System Volume 1.160691 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 2.88 in  
Total Volume Pumped 5.6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 10
Last 5	12:03:47	600.02	22.19	5.84	291.24	1.87	24.90	0.44	673.15
Last 5	12:08:47	900.02	21.96	5.82	293.51	--	25.00	0.32	660.24
Last 5	12:13:47	1200.01	21.92	5.82	294.96	2.00	25.00	0.26	672.43
Last 5	12:18:47	1500.01	21.77	5.81	295.40	2.14	25.00	0.20	686.82
Last 5	12:23:47	1800.01	21.57	5.81	296.77	2.21	25.00	0.20	711.98
Variance 0			-0.04	-0.01	1.45			-0.06	12.19
Variance 1			-0.15	-0.00	0.44			-0.06	14.39
Variance 2			-0.20	-0.00	1.38			0.00	25.16

Notes

Sampled at 1225 on 10-2-18. Sunny 80s.

Grab Samples

Product Name: Low-Flow System

Date: 2018-10-02 12:35:53

Project Information:

Operator Name Chris Parker  
Company Name ACC  
Project Name Plant Yates - Ash Pond  
Site Name Plant Yates - Ash Ponds  
Latitude 33° 27' 46.22"  
Longitude -84° -53' -53.23"  
Sonde SN 466086  
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type QED  
Tubing Type Bladder  
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 27.44 ft

Pumping Information:

Final Pumping Rate 150 mL/min  
Total System Volume 0.8711092 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 1 in  
Total Volume Pumped 6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	12:09:28	600.07	19.95	5.75	420.49	4.13	27.50	1.81	90.31
Last 5	12:14:28	900.07	19.50	5.83	423.18	3.98	27.50	0.77	88.79
Last 5	12:19:28	1200.07	19.37	5.94	421.96	3.32	27.50	0.55	84.86
Last 5	12:24:28	1500.07	19.29	5.97	421.04	3.10	27.50	0.35	84.79
Last 5	12:29:28	1800.06	19.22	5.99	422.79	3.41	27.50	0.38	84.56
Variance 0			-0.13	0.11	-1.22			-0.21	-3.94
Variance 1			-0.08	0.03	-0.92			-0.21	-0.06
Variance 2			-0.07	0.02	1.75			0.03	-0.23

Notes

Collected at 12:35. Sunny 80s

Grab Samples

Product Name: Low-Flow System

Date: 2018-10-02 13:32:11

Project Information:

Operator Name Chris Parker  
Company Name ACC  
Project Name Plant Yates - Ash Pond  
Site Name Plant Yates - Ash Ponds  
Latitude 33° 27' 46.22"  
Longitude -84° -53' -53.23"  
Sonde SN 466086  
Turbidity Make/Model Hach 2100 Q

Pump Information:

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

Pump placement from TOC 75 ft

Well Information:

Well ID YGWC-27I  
Well diameter 2 in  
Well Total Depth 79.84 ft  
Screen Length 10 ft  
Depth to Water 28.10 ft

Pumping Information:

Final Pumping Rate 130 mL/min  
Total System Volume 1.257218 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 5 in  
Total Volume Pumped 4.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	13:09:21	600.04	21.64	6.17	339.84	11.00	28.50	1.48	11.37
Last 5	13:14:21	900.06	21.06	5.95	349.55	7.34	28.50	0.65	12.35
Last 5	13:19:21	1200.05	20.98	5.93	352.89	5.08	28.50	0.39	7.90
Last 5	13:24:22	1501.13	20.30	5.90	353.45	3.78	28.50	0.27	6.41
Last 5	13:29:22	1801.07	20.13	5.90	353.30	2.66	28.50	0.29	6.41
Variance 0			-0.08	-0.02	3.33			-0.26	-4.45
Variance 1			-0.68	-0.03	0.56			-0.12	-1.50
Variance 2			-0.18	-0.00	-0.15			0.02	0.01

Notes

Collected at 13:35. Sunny 80s.

Grab Samples

Product Name: Low-Flow System

Date: 2018-10-03 13:14:55

Project Information:

Operator Name Chris Parker  
Company Name ACC  
Project Name Plant Yates - Ash Pond  
Site Name Plant Yates - Ash Ponds  
Latitude 33° 27' 46.22"  
Longitude -84° -53' -53.23"  
Sonde SN 466086  
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type QED  
Tubing Type Bladder  
Tubing Diameter .25 in  
Tubing Length 45 ft

Pump placement from TOC 40 ft

Well Information:

Well ID YGWC-28S  
Well diameter 2 in  
Well Total Depth 44.85 ft  
Screen Length 10 ft  
Depth to Water 22.80 ft

Pumping Information:

Final Pumping Rate 200 mL/min  
Total System Volume 0.9193729 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 5 in  
Total Volume Pumped 18 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	12:53:00	4200.97	18.73	6.00	459.21	6.70	23.20	0.15	-64.64
Last 5	12:58:00	4500.98	18.65	6.01	459.60	5.38	23.20	0.14	-66.52
Last 5	13:03:00	4800.97	18.75	5.97	460.63	5.51	23.20	0.14	-65.21
Last 5	13:08:01	5102.00	18.47	5.92	461.93	4.98	23.20	0.15	-63.44
Last 5	13:13:01	5401.99	18.88	6.01	458.85	4.58	23.20	0.15	-69.21
Variance 0			0.10	-0.04	1.02			-0.00	1.31
Variance 1			-0.28	-0.04	1.30			0.00	1.77
Variance 2			0.41	0.09	-3.07			0.00	-5.76

Notes

Collected at 13:15. Sunny 80s. DUP 2 here

Grab Samples

Product Name: Low-Flow System

Date: 2018-10-03 10:57:46

Project Information:

Operator Name Chris Parker  
Company Name ACC  
Project Name Plant Yates - Ash Pond  
Site Name Plant Yates - Ash Ponds  
Latitude 33° 27' 46.22"  
Longitude -84° -53' -53.23"  
Sonde SN 466086  
Turbidity Make/Model Hach 2100 Q

Pump Information:

Pump Model/Type QED  
Tubing Type Bladder  
Tubing Diameter .25 in  
Tubing Length 70 ft

Pump placement from TOC 65 ft

Well Information:

Well ID YGWC-28I  
Well diameter 2 in  
Well Total Depth 69.89 ft  
Screen Length 10 ft  
Depth to Water 23.52 ft

Pumping Information:

Final Pumping Rate 130 mL/min  
Total System Volume 1.160691 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 17 in  
Total Volume Pumped 5.9 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 0
Last 5	10:34:17	900.07	18.53	6.57	405.66	1.76	24.60	1.03	143.57
Last 5	10:39:17	1200.06	18.61	6.38	400.24	1.36	24.70	0.70	125.74
Last 5	10:44:17	1500.06	18.56	6.24	400.77	1.46	24.80	0.59	112.36
Last 5	10:49:17	1800.06	18.57	6.18	403.72	1.31	24.90	0.51	94.84
Last 5	10:54:17	2100.05	18.56	6.21	404.73	1.19	24.90	0.50	88.23
Variance 0			-0.05	-0.15	0.53			-0.12	-13.37
Variance 1			0.00	-0.06	2.95			-0.07	-17.52
Variance 2			-0.00	0.03	1.01			-0.01	-6.61

Notes

Collected at 11:00. Sunny 70s. EB 2 here at 09:40 - gloves

Grab Samples

Product Name: Low-Flow System

Date: 2018-10-02 14:00:16

Project Information:

Operator Name H Auld  
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 466058  
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED Bladder  
Tubing Type poly  
Tubing Diameter .25 in  
Tubing Length 40 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 27 ft

Pumping Information:

Final Pumping Rate 100 mL/min  
Total System Volume 0.8711092 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 14.4 in  
Total Volume Pumped 3 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 0		+/- 10%	+/- 10
Last 5	13:38:42	300.03	22.09	6.19	244.55	1.57	27.90	1.29	181.23
Last 5	13:43:42	600.03	21.69	6.19	244.89	--	28.00	0.83	169.89
Last 5	13:48:42	900.03	21.42	6.18	244.91	2.12	28.10	0.56	161.02
Last 5	13:53:42	1200.02	21.41	6.17	245.31	1.43	28.15	0.42	154.95
Last 5	13:58:42	1500.01	21.52	6.17	245.66	1.41	28.20	0.36	150.85
Variance 0			-0.26	-0.01	0.02			-0.27	-8.87
Variance 1			-0.01	-0.00	0.40			-0.14	-6.07
Variance 2			0.11	-0.00	0.35			-0.06	-4.10

Notes

Sampled at 1355 on 10-2-18. Sunny 90. FB-2-10-2 poured here at 1350.

Grab Samples

# APPENDIX B

## STATISTICAL ANALYSES

# 100% ND

Date: 12/17/2018 3:16 PM

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

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Arsenic (mg/L)

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

Cobalt (mg/L)

YGWC-26I

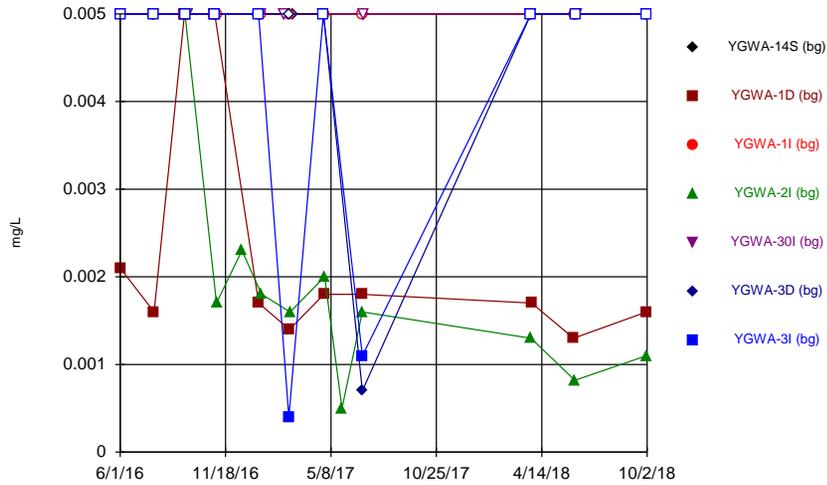
Lithium (mg/L)

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

Molybdenum (mg/L)

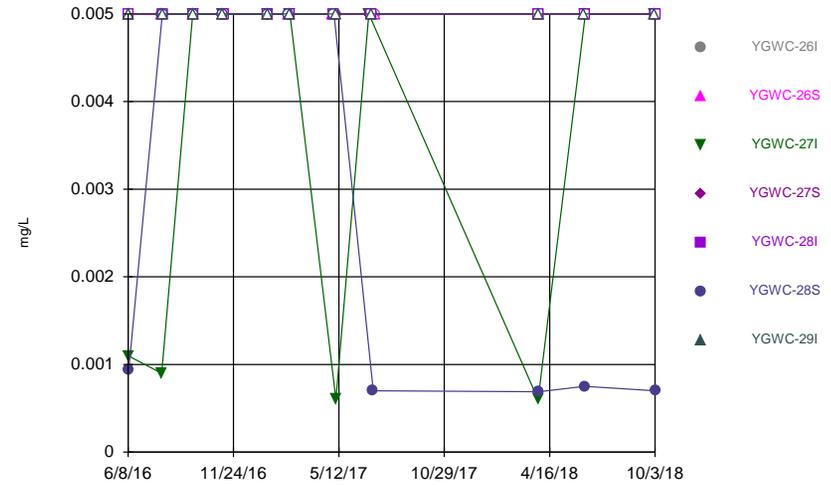
YGWC-26I, YGWC-26S, YGWC-27S, YGWC-29I

### Time Series



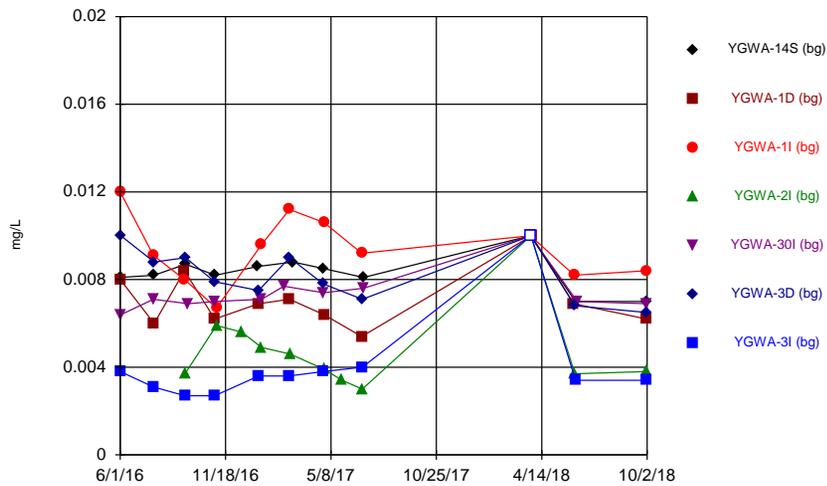
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Plant Yates Client: Southern Company Data: Yates Ash Pond 2

### Time Series



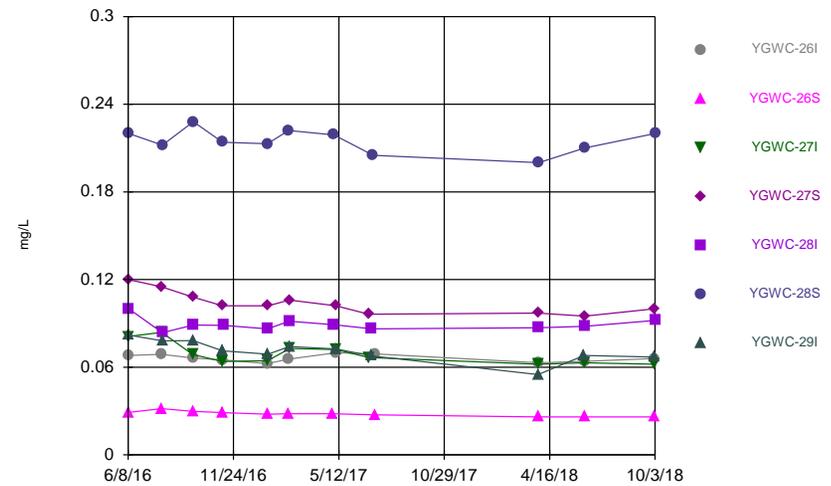
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Plant Yates Client: Southern Company Data: Yates Ash Pond 2

### Time Series



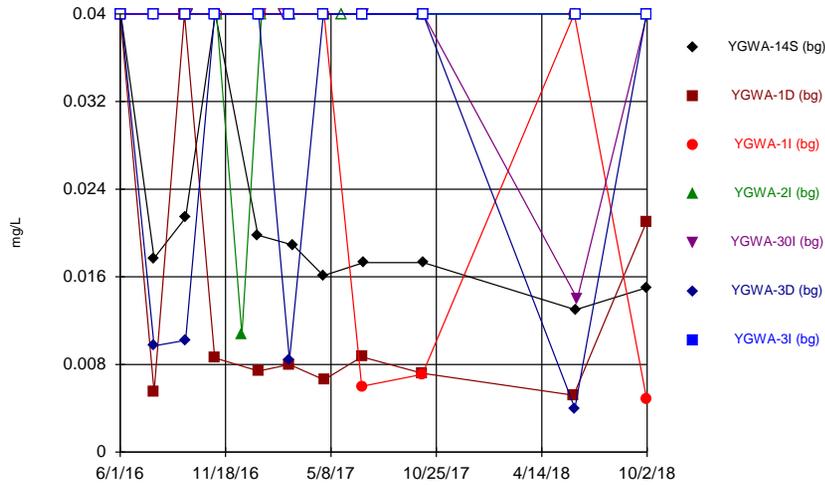
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Plant Yates Client: Southern Company Data: Yates Ash Pond 2

### Time Series



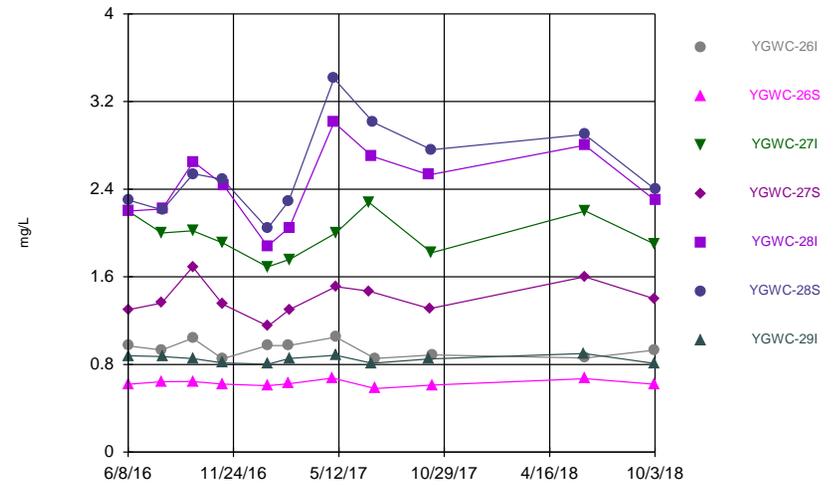
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Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Time Series



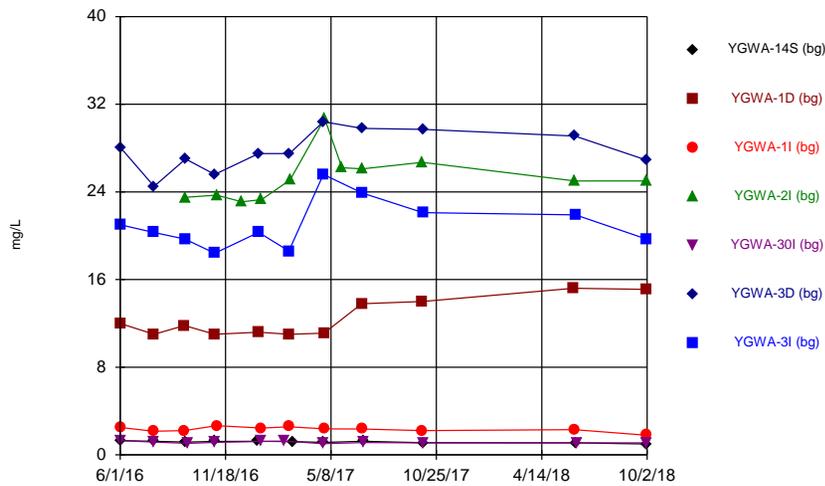
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Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Time Series



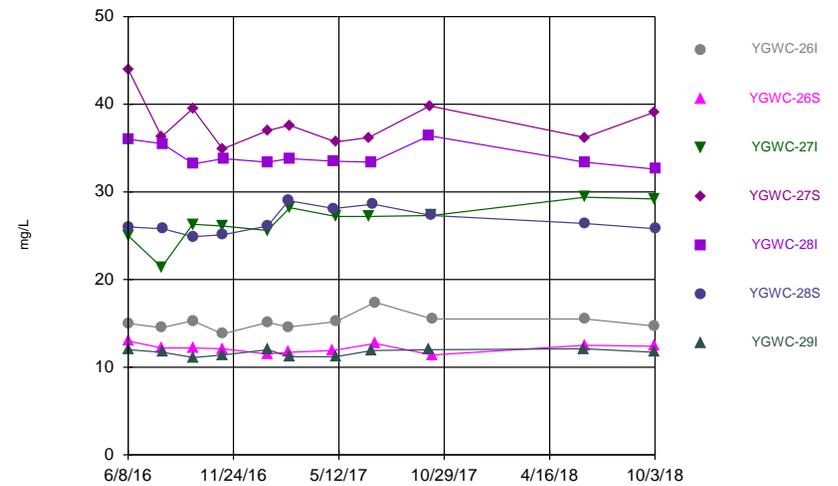
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Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Time Series



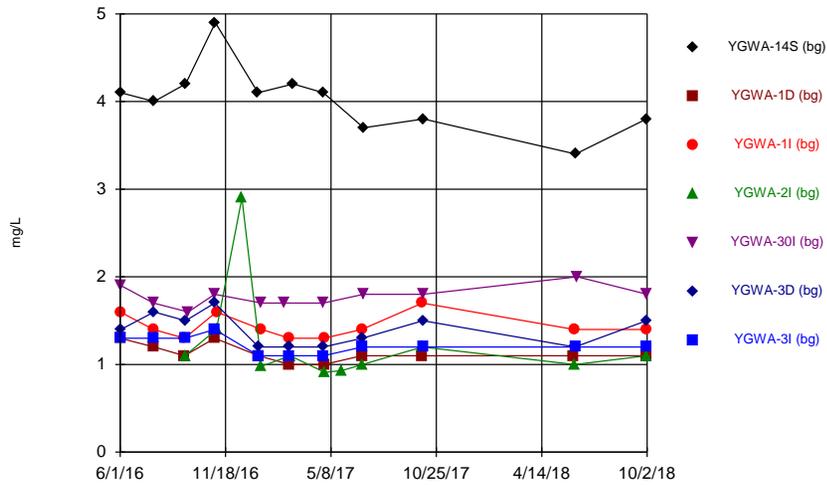
Constituent: Calcium Analysis Run 12/17/2018 11:16 AM View: Time Series  
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Time Series



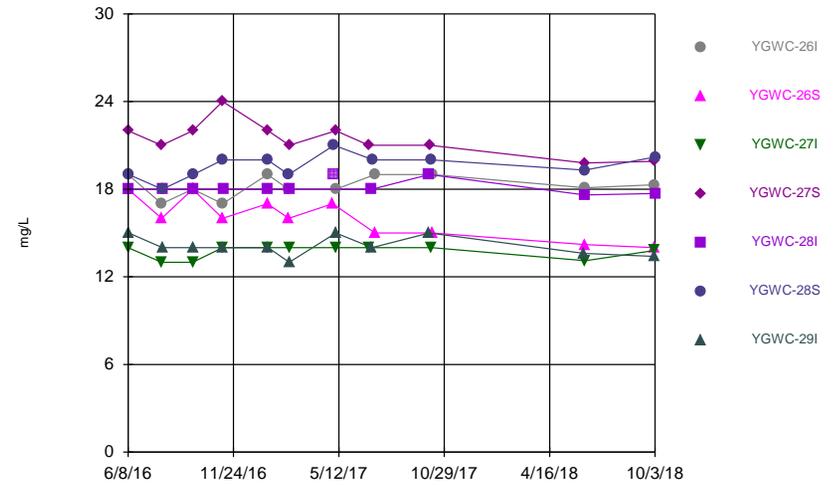
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Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Time Series



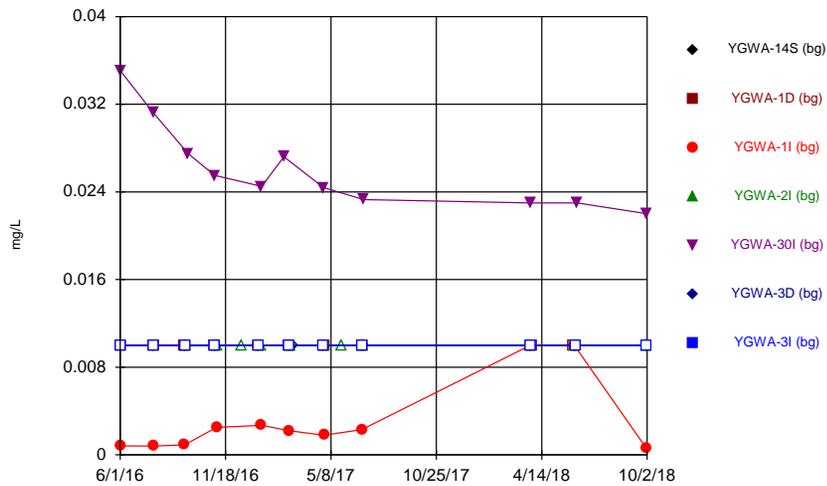
Constituent: Chloride Analysis Run 12/17/2018 11:16 AM View: Time Series  
 Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Time Series



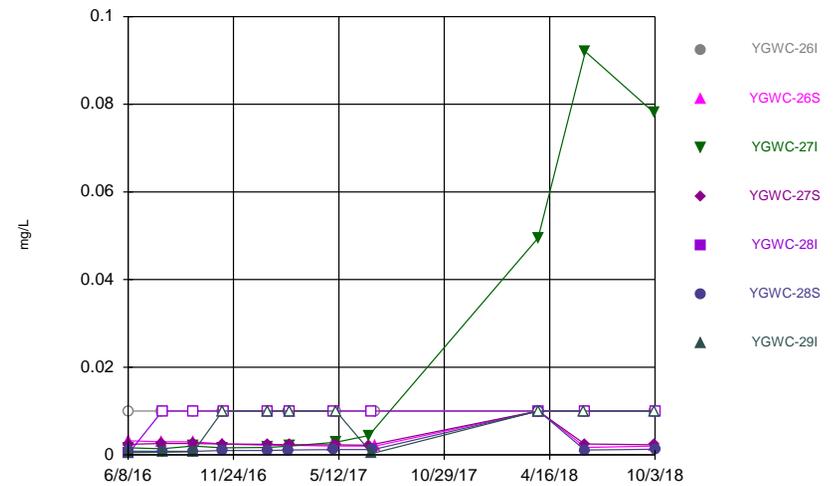
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 Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Time Series



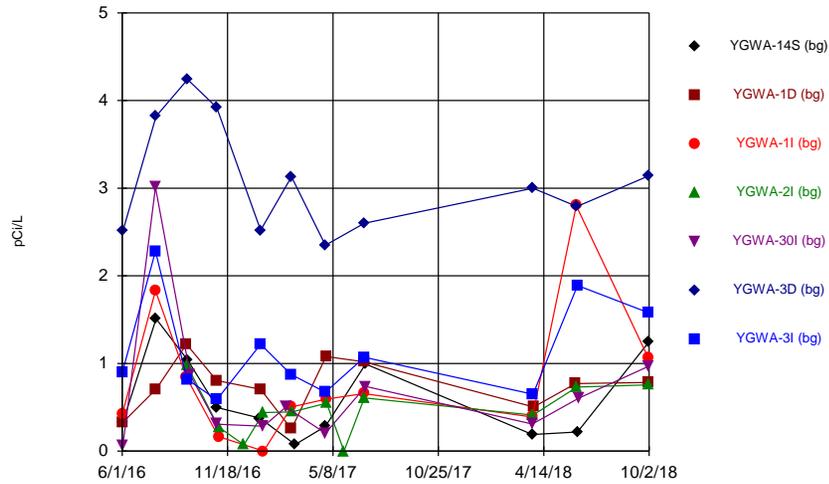
Constituent: Cobalt Analysis Run 12/17/2018 11:16 AM View: Time Series  
 Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Time Series



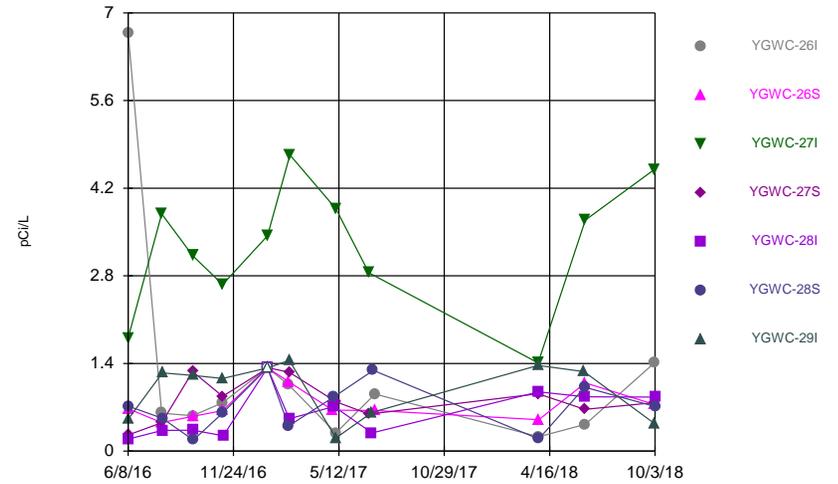
Constituent: Cobalt Analysis Run 12/17/2018 11:16 AM View: Time Series  
 Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Time Series



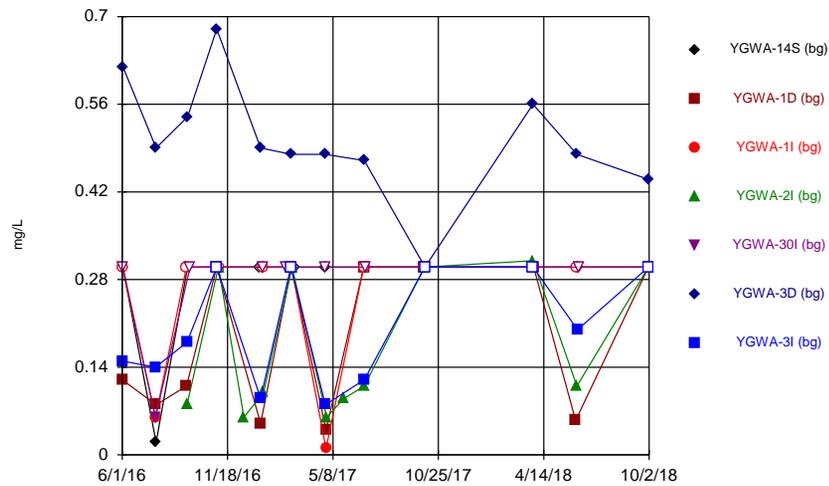
Constituent: Combined Radium 226 + 228 Analysis Run 12/17/2018 11:16 AM View: Time Series  
 Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Time Series



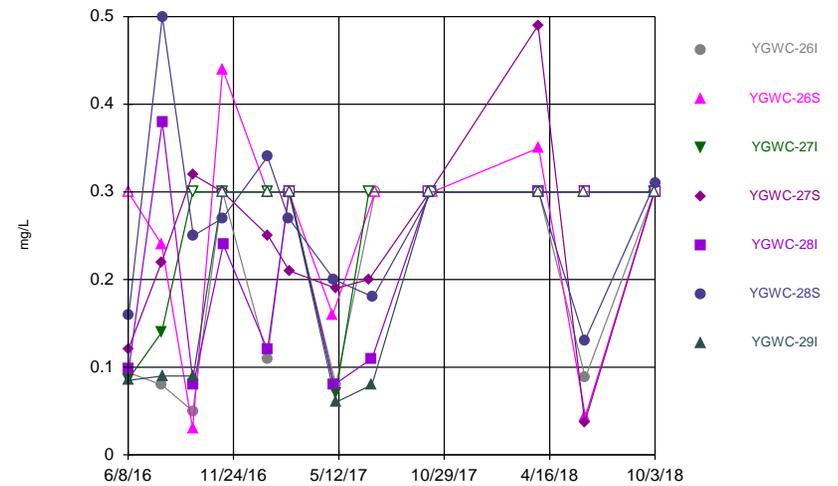
Constituent: Combined Radium 226 + 228 Analysis Run 12/17/2018 11:16 AM View: Time Series  
 Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Time Series



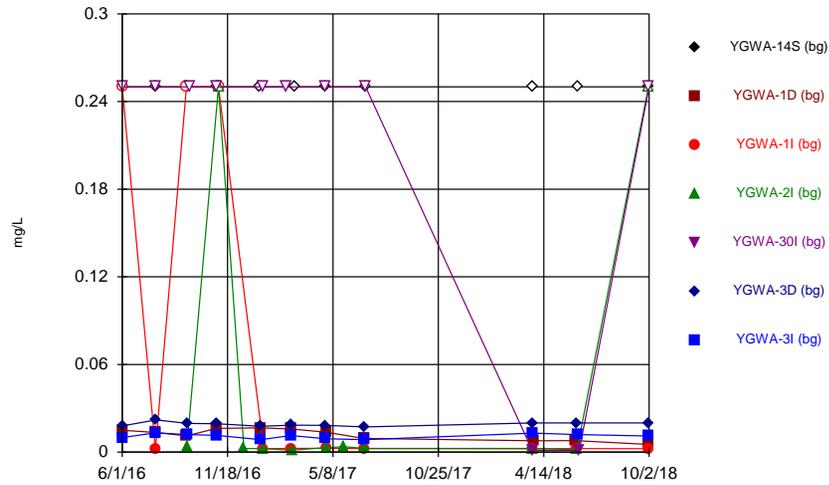
Constituent: Fluoride Analysis Run 12/17/2018 11:16 AM View: Time Series  
 Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Time Series



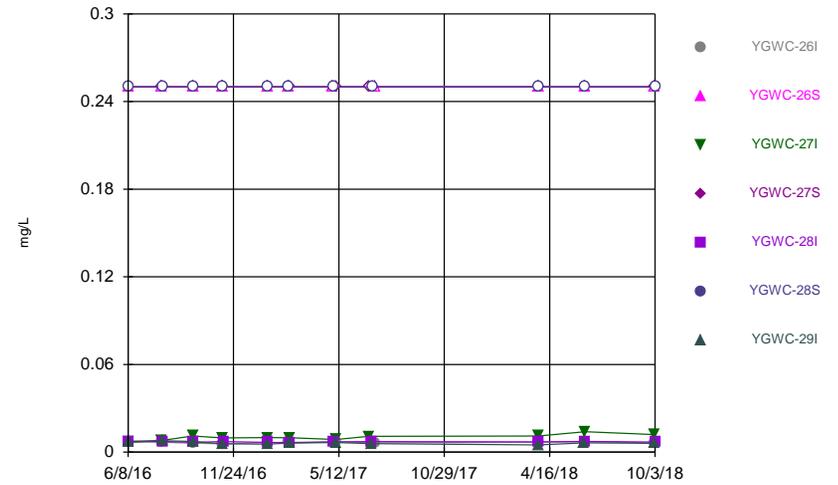
Constituent: Fluoride Analysis Run 12/17/2018 11:16 AM View: Time Series  
 Plant Yates Client: Southern Company Data: Yates Ash Pond 2

### Time Series



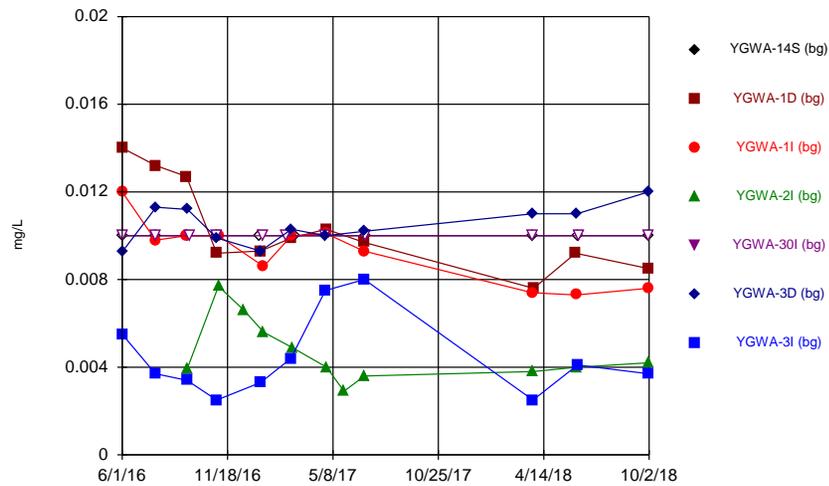
Constituent: Lithium Analysis Run 12/17/2018 11:16 AM View: Time Series  
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

### Time Series



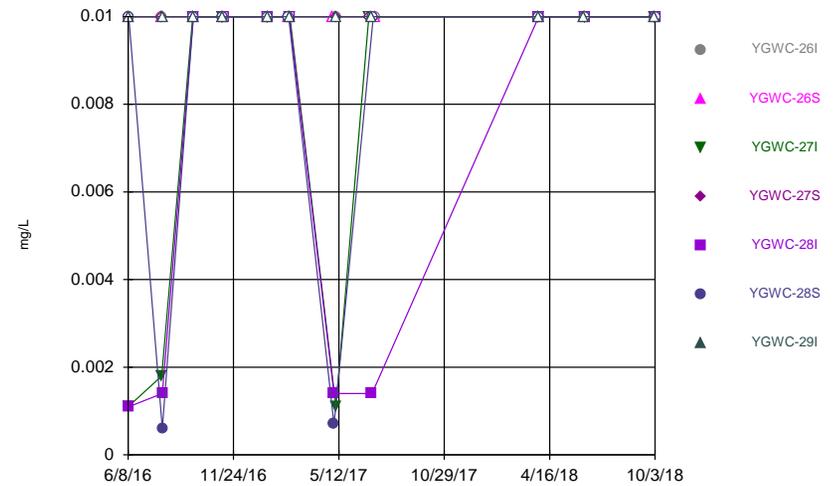
Constituent: Lithium Analysis Run 12/17/2018 11:16 AM View: Time Series  
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

### Time Series



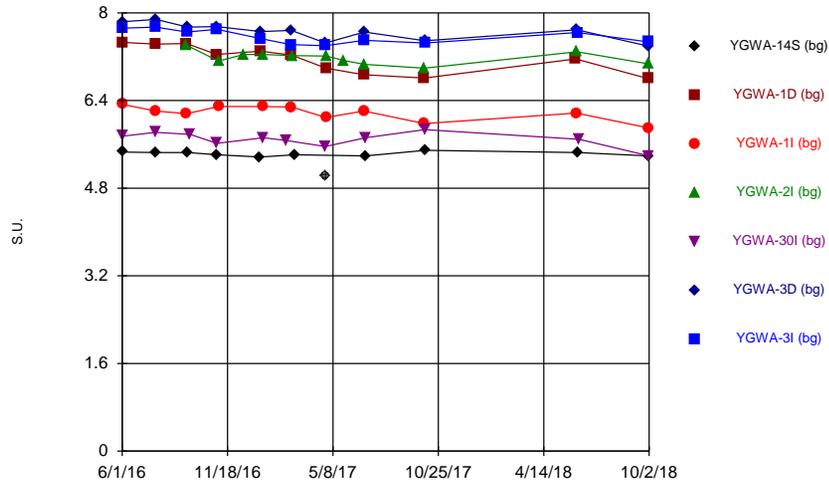
Constituent: Molybdenum Analysis Run 12/17/2018 11:16 AM View: Time Series  
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

### Time Series



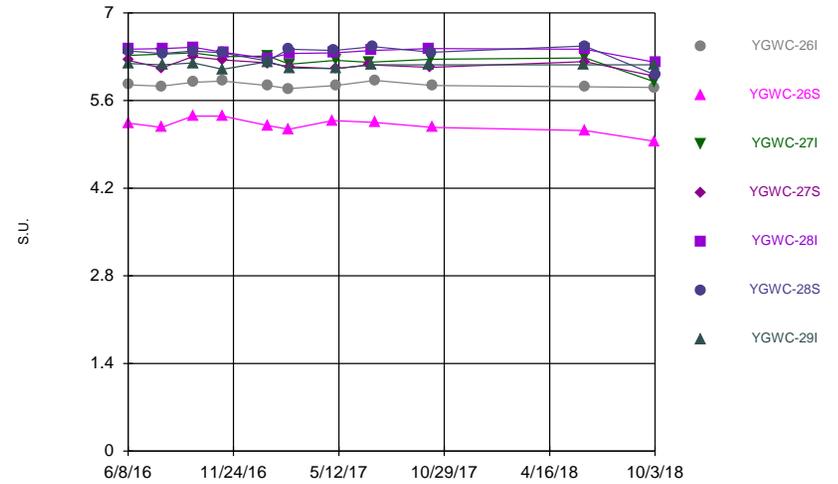
Constituent: Molybdenum Analysis Run 12/17/2018 11:16 AM View: Time Series  
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Time Series



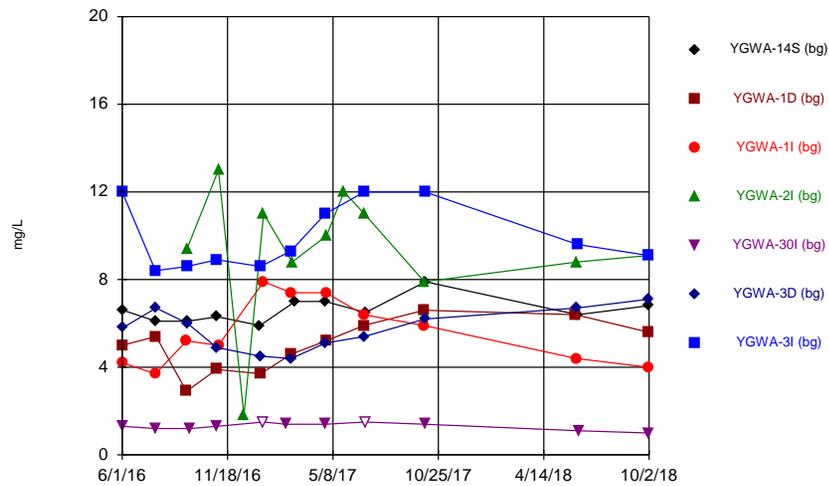
Constituent: pH Analysis Run 12/17/2018 11:16 AM View: Time Series  
 Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Time Series



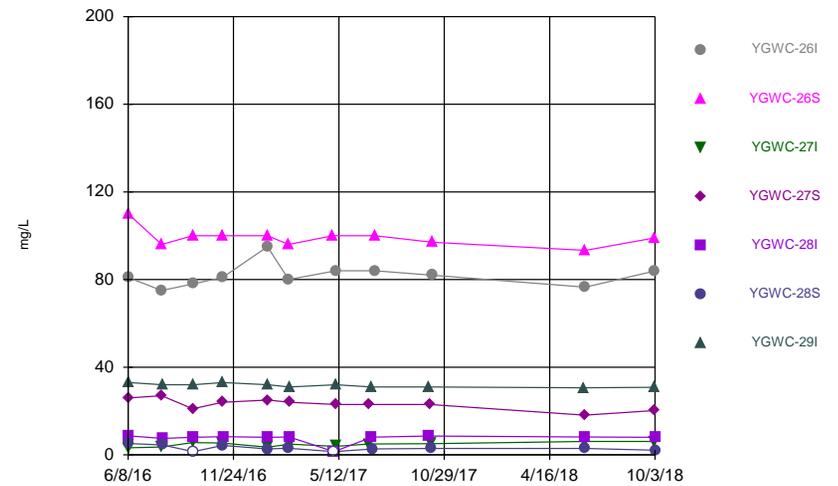
Constituent: pH Analysis Run 12/17/2018 11:16 AM View: Time Series  
 Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Time Series



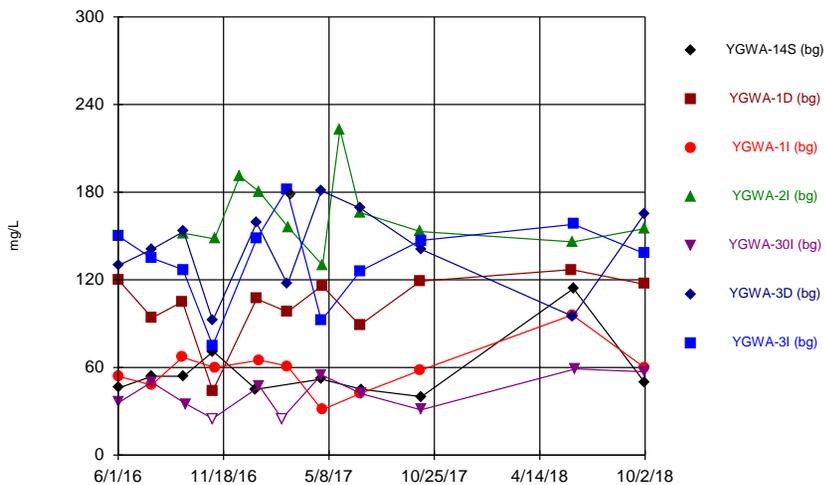
Constituent: Sulfate Analysis Run 12/17/2018 11:16 AM View: Time Series  
 Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Time Series



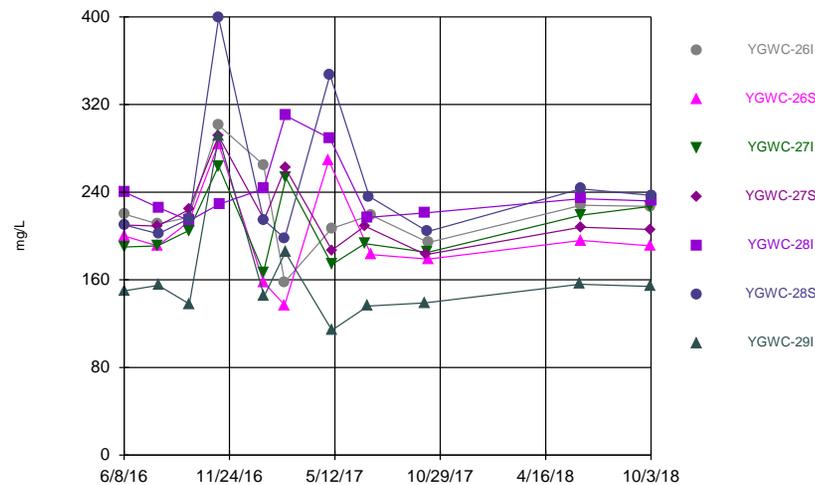
Constituent: Sulfate Analysis Run 12/17/2018 11:16 AM View: Time Series  
 Plant Yates Client: Southern Company Data: Yates Ash Pond 2

### Time Series



Constituent: Total Dissolved Solids Analysis Run 12/17/2018 11:16 AM View: Time Series  
 Plant Yates Client: Southern Company Data: Yates Ash Pond 2

### Time Series



Constituent: Total Dissolved Solids Analysis Run 12/17/2018 11:16 AM View: Time Series  
 Plant Yates Client: Southern Company Data: Yates Ash Pond 2

# Tolerance Limit

Plant Yates Client: Southern Company Data: Yates Ash Pond 2 Printed 1/23/2019, 4:14 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Date</u>	<u>Observ.</u>	<u>Sig.</u>	<u>Bg N</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Arsenic (mg/L)	n/a	0.0025	n/a	n/a	n/a	77	71.43	n/a	0.01926	NP Inter(normal...
Barium (mg/L)	n/a	0.01079	n/a	n/a	n/a	77	9.091	No	0.05	Inter
Cobalt (mg/L)	n/a	0.035	n/a	n/a	n/a	77	74.03	n/a	0.01926	NP Inter(normal...
Combined Radium 226 + 228 (pCi/L)	n/a	3.866	n/a	n/a	n/a	77	0	x^(1/3)	0.05	Inter
Fluoride (mg/L)	n/a	0.68	n/a	n/a	n/a	84	57.14	n/a	0.01345	NP Inter(normal...
Lithium (mg/L)	n/a	0.025	n/a	n/a	n/a	76	31.58	n/a	0.02028	NP Inter(normal...
Molybdenum (mg/L)	n/a	0.014	n/a	n/a	n/a	77	28.57	n/a	0.01926	NP Inter(normal...

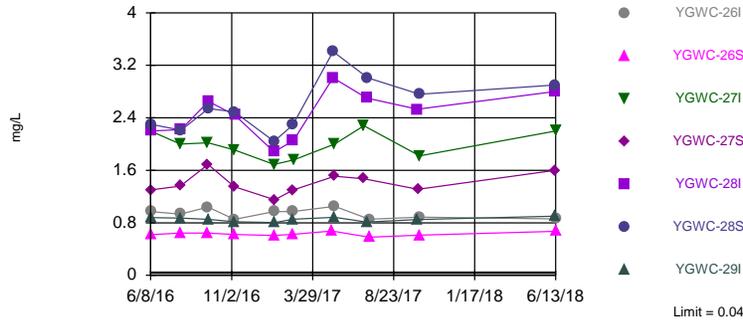
# Interwell Prediction Limit

Plant Yates    Client: Southern Company    Data: Yates Ash Pond 2    Printed 12/17/2018, 11:27 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>
<b>Boron (mg/L)</b>	<b>YGWC-26I</b>	<b>0.04</b>	<b>6/13/2018</b>	<b>0.86</b>	<b>Yes</b>	<b>70</b>	<b>65.71</b>	<b>n/a</b>	<b>0.0003866</b>	<b>NP Inter (NDs) 1 of 2</b>
<b>Boron (mg/L)</b>	<b>YGWC-26S</b>	<b>0.04</b>	<b>6/13/2018</b>	<b>0.67</b>	<b>Yes</b>	<b>70</b>	<b>65.71</b>	<b>n/a</b>	<b>0.0003866</b>	<b>NP Inter (NDs) 1 of 2</b>
<b>Boron (mg/L)</b>	<b>YGWC-27I</b>	<b>0.04</b>	<b>6/13/2018</b>	<b>2.2</b>	<b>Yes</b>	<b>70</b>	<b>65.71</b>	<b>n/a</b>	<b>0.0003866</b>	<b>NP Inter (NDs) 1 of 2</b>
<b>Boron (mg/L)</b>	<b>YGWC-27S</b>	<b>0.04</b>	<b>6/12/2018</b>	<b>1.6</b>	<b>Yes</b>	<b>70</b>	<b>65.71</b>	<b>n/a</b>	<b>0.0003866</b>	<b>NP Inter (NDs) 1 of 2</b>
<b>Boron (mg/L)</b>	<b>YGWC-28I</b>	<b>0.04</b>	<b>6/12/2018</b>	<b>2.8</b>	<b>Yes</b>	<b>70</b>	<b>65.71</b>	<b>n/a</b>	<b>0.0003866</b>	<b>NP Inter (NDs) 1 of 2</b>
<b>Boron (mg/L)</b>	<b>YGWC-28S</b>	<b>0.04</b>	<b>6/12/2018</b>	<b>2.9</b>	<b>Yes</b>	<b>70</b>	<b>65.71</b>	<b>n/a</b>	<b>0.0003866</b>	<b>NP Inter (NDs) 1 of 2</b>
<b>Boron (mg/L)</b>	<b>YGWC-29I</b>	<b>0.04</b>	<b>6/11/2018</b>	<b>0.9</b>	<b>Yes</b>	<b>70</b>	<b>65.71</b>	<b>n/a</b>	<b>0.0003866</b>	<b>NP Inter (NDs) 1 of 2</b>
Calcium (mg/L)	YGWC-26I	30.7	6/13/2018	15.5	No	70	0	n/a	0.0003866	NP Inter (normality) 1 of 2
Calcium (mg/L)	YGWC-26S	30.7	6/13/2018	12.5	No	70	0	n/a	0.0003866	NP Inter (normality) 1 of 2
Calcium (mg/L)	YGWC-27I	30.7	6/13/2018	29.4	No	70	0	n/a	0.0003866	NP Inter (normality) 1 of 2
<b>Calcium (mg/L)</b>	<b>YGWC-27S</b>	<b>30.7</b>	<b>6/12/2018</b>	<b>36.2</b>	<b>Yes</b>	<b>70</b>	<b>0</b>	<b>n/a</b>	<b>0.0003866</b>	<b>NP Inter (normality) 1 of 2</b>
<b>Calcium (mg/L)</b>	<b>YGWC-28I</b>	<b>30.7</b>	<b>6/12/2018</b>	<b>33.4</b>	<b>Yes</b>	<b>70</b>	<b>0</b>	<b>n/a</b>	<b>0.0003866</b>	<b>NP Inter (normality) 1 of 2</b>
Calcium (mg/L)	YGWC-28S	30.7	6/12/2018	26.4	No	70	0	n/a	0.0003866	NP Inter (normality) 1 of 2
Calcium (mg/L)	YGWC-29I	30.7	6/11/2018	12.1	No	70	0	n/a	0.0003866	NP Inter (normality) 1 of 2
<b>Chloride (mg/L)</b>	<b>YGWC-26I</b>	<b>4.9</b>	<b>6/13/2018</b>	<b>18.1</b>	<b>Yes</b>	<b>70</b>	<b>0</b>	<b>n/a</b>	<b>0.0003866</b>	<b>NP Inter (normality) 1 of 2</b>
<b>Chloride (mg/L)</b>	<b>YGWC-26S</b>	<b>4.9</b>	<b>6/13/2018</b>	<b>14.2</b>	<b>Yes</b>	<b>70</b>	<b>0</b>	<b>n/a</b>	<b>0.0003866</b>	<b>NP Inter (normality) 1 of 2</b>
<b>Chloride (mg/L)</b>	<b>YGWC-27I</b>	<b>4.9</b>	<b>6/13/2018</b>	<b>13.1</b>	<b>Yes</b>	<b>70</b>	<b>0</b>	<b>n/a</b>	<b>0.0003866</b>	<b>NP Inter (normality) 1 of 2</b>
<b>Chloride (mg/L)</b>	<b>YGWC-27S</b>	<b>4.9</b>	<b>6/12/2018</b>	<b>19.8</b>	<b>Yes</b>	<b>70</b>	<b>0</b>	<b>n/a</b>	<b>0.0003866</b>	<b>NP Inter (normality) 1 of 2</b>
<b>Chloride (mg/L)</b>	<b>YGWC-28I</b>	<b>4.9</b>	<b>6/12/2018</b>	<b>17.6</b>	<b>Yes</b>	<b>70</b>	<b>0</b>	<b>n/a</b>	<b>0.0003866</b>	<b>NP Inter (normality) 1 of 2</b>
<b>Chloride (mg/L)</b>	<b>YGWC-28S</b>	<b>4.9</b>	<b>6/12/2018</b>	<b>19.3</b>	<b>Yes</b>	<b>70</b>	<b>0</b>	<b>n/a</b>	<b>0.0003866</b>	<b>NP Inter (normality) 1 of 2</b>
<b>Chloride (mg/L)</b>	<b>YGWC-29I</b>	<b>4.9</b>	<b>6/11/2018</b>	<b>13.6</b>	<b>Yes</b>	<b>70</b>	<b>0</b>	<b>n/a</b>	<b>0.0003866</b>	<b>NP Inter (normality) 1 of 2</b>
<b>Sulfate (mg/L)</b>	<b>YGWC-26I</b>	<b>12.12</b>	<b>6/13/2018</b>	<b>76.5</b>	<b>Yes</b>	<b>70</b>	<b>2.857</b>	<b>No</b>	<b>0.001075</b>	<b>Param Inter 1 of 2</b>
<b>Sulfate (mg/L)</b>	<b>YGWC-26S</b>	<b>12.12</b>	<b>6/13/2018</b>	<b>93.3</b>	<b>Yes</b>	<b>70</b>	<b>2.857</b>	<b>No</b>	<b>0.001075</b>	<b>Param Inter 1 of 2</b>
Sulfate (mg/L)	YGWC-27I	12.12	6/13/2018	6.1	No	70	2.857	No	0.001075	Param Inter 1 of 2
<b>Sulfate (mg/L)</b>	<b>YGWC-27S</b>	<b>12.12</b>	<b>6/12/2018</b>	<b>18.1</b>	<b>Yes</b>	<b>70</b>	<b>2.857</b>	<b>No</b>	<b>0.001075</b>	<b>Param Inter 1 of 2</b>
Sulfate (mg/L)	YGWC-28I	12.12	6/12/2018	8.2	No	70	2.857	No	0.001075	Param Inter 1 of 2
Sulfate (mg/L)	YGWC-28S	12.12	6/12/2018	2.9	No	70	2.857	No	0.001075	Param Inter 1 of 2
<b>Sulfate (mg/L)</b>	<b>YGWC-29I</b>	<b>12.12</b>	<b>6/11/2018</b>	<b>30.6</b>	<b>Yes</b>	<b>70</b>	<b>2.857</b>	<b>No</b>	<b>0.001075</b>	<b>Param Inter 1 of 2</b>

Exceeds Limit: YGWC-26I, YGWC-26S, YGWC-27I, YGWC-27S, YGWC-28I, YGWC-28S

Prediction Limit  
Interwell Non-parametric

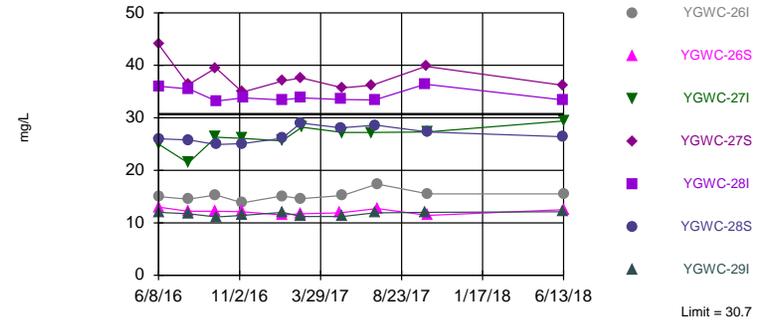


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 70 background values. 65.71% NDs. Annual per-constituent alpha = 0.005399. Individual comparison alpha = 0.0003866 (1 of 2). Comparing 7 points to limit.

Constituent: Boron Analysis Run 12/17/2018 11:25 AM View: Interwell PL  
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Exceeds Limit: YGWC-27S, YGWC-28I

Prediction Limit  
Interwell Non-parametric

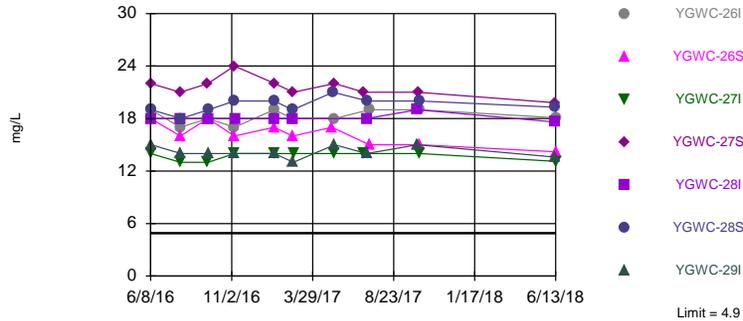


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 70 background values. Annual per-constituent alpha = 0.005399. Individual comparison alpha = 0.0003866 (1 of 2). Comparing 7 points to limit.

Constituent: Calcium Analysis Run 12/17/2018 11:25 AM View: Interwell PL  
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Exceeds Limit: YGWC-26I, YGWC-26S, YGWC-27I, YGWC-27S, YGWC-28I, YGWC-28S

Prediction Limit  
Interwell Non-parametric



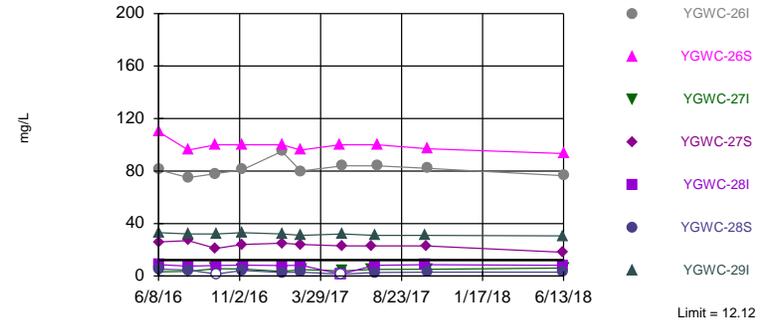
Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 70 background values. Annual per-constituent alpha = 0.005399. Individual comparison alpha = 0.0003866 (1 of 2). Comparing 7 points to limit.

Constituent: Chloride Analysis Run 12/17/2018 11:25 AM View: Interwell PL  
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Hollow symbols indicate censored values.

Exceeds Limit: YGWC-26I, YGWC-26S, YGWC-27S, YGWC-29I

Prediction Limit  
Interwell Parametric



Background Data Summary: Mean=6.229, Std. Dev.=3.087, n=70, 2.857% NDs. Normality test: Shapiro Francia @alpha = 0.01, calculated = 0.9724, critical = 0.952. Kappa = 1.908 (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 12/17/2018 11:25 AM View: Interwell PL  
Plant Yates Client: Southern Company Data: Yates Ash Pond 2





# Prediction Limit

Constituent: Boron (mg/L) Analysis Run 12/17/2018 11:27 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 12/17/2018 11:27 AM View: Interwell PL  
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

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	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				





# Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 12/17/2018 11:27 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 12/17/2018 11:27 AM View: Interwell PL  
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

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	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				





# Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 12/17/2018 11:27 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 12/17/2018 11:27 AM View: Interwell PL  
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

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	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				





# Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 12/17/2018 11:27 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 12/17/2018 11:27 AM View: Interwell PL  
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

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	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				

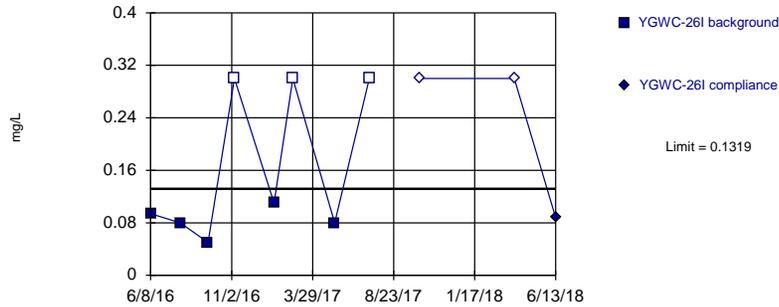
# Intrawell Prediction Limit

Plant Yates Client: Southern Company Data: Yates Ash Pond 2 Printed 12/17/2018, 11:40 AM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Date</u>	<u>Observ.</u>	<u>Sig.</u>	<u>Bg N</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Fluoride (mg/L)	YGWC-26I	0.1319	n/a	6/13/2018	0.088	No	8	37.5	sqrt(x)	0.001075	Param Intra 1 of 3
Fluoride (mg/L)	YGWC-26S	0.441	n/a	6/13/2018	0.044	No	8	50	No	0.001075	Param Intra 1 of 3
Fluoride (mg/L)	YGWC-27I	0.3	n/a	6/13/2018	0.3ND	No	8	62.5	n/a	0.005912	NP Intra (NDs) 1 of 3
Fluoride (mg/L)	YGWC-27S	0.3567	n/a	6/12/2018	0.037	No	8	12.5	No	0.001075	Param Intra 1 of 3
Fluoride (mg/L)	YGWC-28I	0.4123	n/a	6/12/2018	0.3ND	No	8	12.5	No	0.001075	Param Intra 1 of 3
Fluoride (mg/L)	YGWC-28S	0.4947	n/a	6/12/2018	0.13	No	8	0	No	0.001075	Param Intra 1 of 3
Fluoride (mg/L)	YGWC-29I	0.1062	n/a	6/11/2018	0.3ND	No	8	37.5	ln(x)	0.001075	Param Intra 1 of 3
pH (S.U.)	YGWC-26I	5.949	5.768	6/13/2018	5.82	No	8	0	No	0.0005373	Param Intra 1 of 3
pH (S.U.)	YGWC-26S	5.406	5.089	6/13/2018	5.12	No	8	0	No	0.0005373	Param Intra 1 of 3
pH (S.U.)	YGWC-27I	6.415	6.15	6/13/2018	6.28	No	8	0	No	0.0005373	Param Intra 1 of 3
pH (S.U.)	YGWC-27S	6.331	6.052	6/12/2018	6.22	No	8	0	No	0.0005373	Param Intra 1 of 3
pH (S.U.)	YGWC-28I	6.498	6.264	6/12/2018	6.42	No	8	0	No	0.0005373	Param Intra 1 of 3
pH (S.U.)	YGWC-28S	6.514	6.236	6/12/2018	6.47	No	8	0	No	0.0005373	Param Intra 1 of 3
pH (S.U.)	YGWC-29I	6.252	6.068	6/11/2018	6.17	No	8	0	No	0.0005373	Param Intra 1 of 3
Total Dissolved Solids (mg/L)	YGWC-26I	311.4	n/a	6/13/2018	228	No	8	0	No	0.001075	Param Intra 1 of 3
Total Dissolved Solids (mg/L)	YGWC-26S	308.1	n/a	6/13/2018	196	No	8	0	No	0.001075	Param Intra 1 of 3
Total Dissolved Solids (mg/L)	YGWC-27I	277.1	n/a	6/13/2018	219	No	8	0	No	0.001075	Param Intra 1 of 3
Total Dissolved Solids (mg/L)	YGWC-27S	295.1	n/a	6/12/2018	208	No	8	0	No	0.001075	Param Intra 1 of 3
Total Dissolved Solids (mg/L)	YGWC-28I	317.6	n/a	6/12/2018	234	No	8	0	No	0.001075	Param Intra 1 of 3
Total Dissolved Solids (mg/L)	YGWC-28S	422.5	n/a	6/12/2018	243	No	8	0	ln(x)	0.001075	Param Intra 1 of 3
Total Dissolved Solids (mg/L)	YGWC-29I	278.2	n/a	6/11/2018	156	No	8	0	sqrt(x)	0.001075	Param Intra 1 of 3

Within Limit

Prediction Limit  
Intrawell Parametric

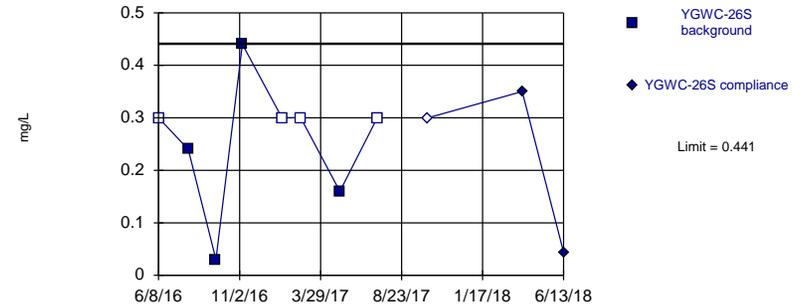


Background Data Summary (based on square root transformation) (after Kaplan-Meier Adjustment): Mean=0.2737, Std. Dev.=0.04369, n=8, 37.5% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7927, critical = 0.749. Kappa = 2.049 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: Fluoride Analysis Run 12/17/2018 11:39 AM View: Intrawell PL  
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Within Limit

Prediction Limit  
Intrawell Parametric

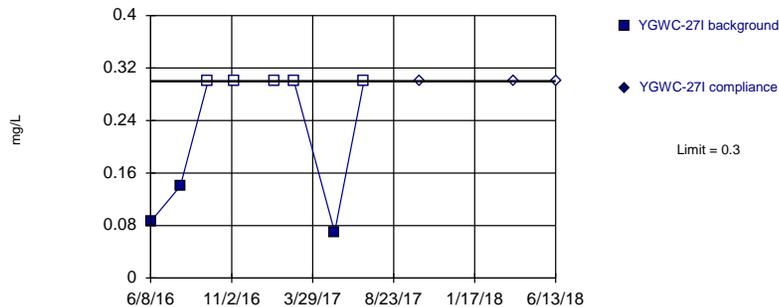


Background Data Summary (after Kaplan-Meier Adjustment): Mean=0.1804, Std. Dev.=0.1272, n=8, 50% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8986, critical = 0.749. Kappa = 2.049 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: Fluoride Analysis Run 12/17/2018 11:39 AM View: Intrawell PL  
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Within Limit

Prediction Limit  
Intrawell Non-parametric

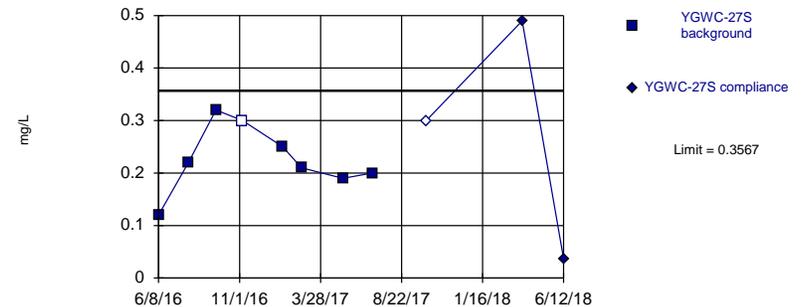


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 8 background values. 62.5% NDs. Well-constituent pair annual alpha = 0.01179. Individual comparison alpha = 0.005912 (1 of 3).

Constituent: Fluoride Analysis Run 12/17/2018 11:39 AM View: Intrawell PL  
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Within Limit

Prediction Limit  
Intrawell Parametric

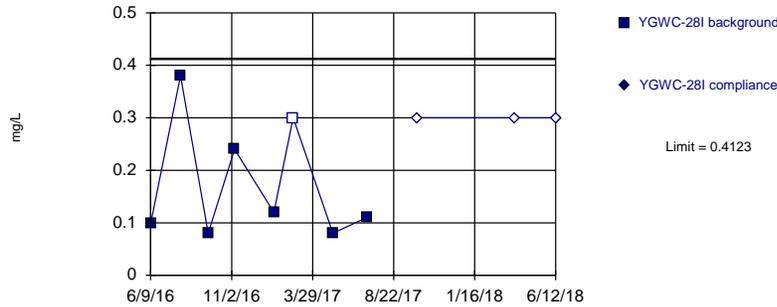


Background Data Summary: Mean=0.2263, Std. Dev.=0.06368, n=8, 12.5% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9604, critical = 0.749. Kappa = 2.049 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: Fluoride Analysis Run 12/17/2018 11:39 AM View: Intrawell PL  
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Within Limit

Prediction Limit  
Intrawell Parametric

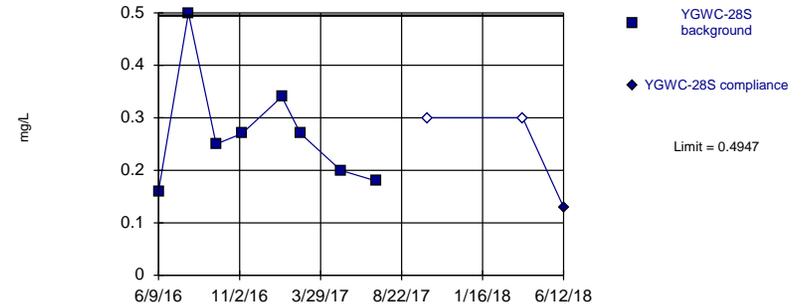


Background Data Summary: Mean=0.176, Std. Dev.=0.1153, n=8, 12.5% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8211, critical = 0.749. Kappa = 2.049 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: Fluoride Analysis Run 12/17/2018 11:39 AM View: Intrawell PL  
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Within Limit

Prediction Limit  
Intrawell Parametric

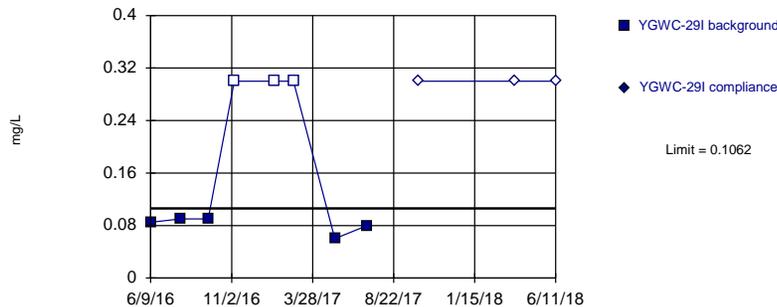


Background Data Summary: Mean=0.2713, Std. Dev.=0.1091, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8734, critical = 0.749. Kappa = 2.049 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: Fluoride Analysis Run 12/17/2018 11:39 AM View: Intrawell PL  
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Within Limit

Prediction Limit  
Intrawell Parametric

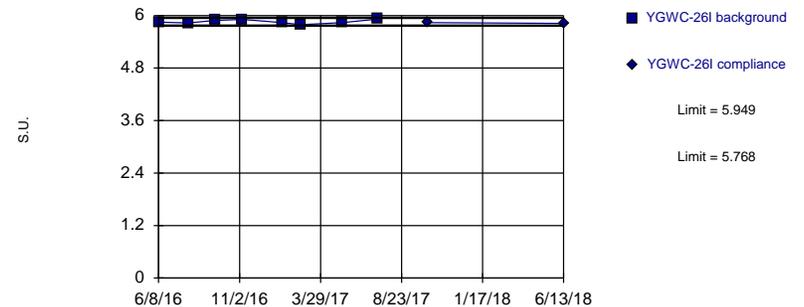


Background Data Summary (based on natural log transformation) (after Kaplan-Meier Adjustment): Mean=-2.563, Std. Dev.=0.1564, n=8, 37.5% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7685, critical = 0.749. Kappa = 2.049 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: Fluoride Analysis Run 12/17/2018 11:39 AM View: Intrawell PL  
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Within Limits

Prediction Limit  
Intrawell Parametric

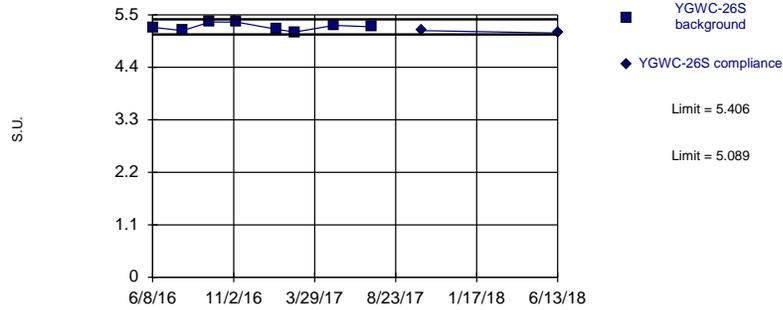


Background Data Summary: Mean=5.859, Std. Dev.=0.04422, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9373, critical = 0.749. Kappa = 2.049 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: pH Analysis Run 12/17/2018 11:39 AM View: Intrawell PL  
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Within Limits

### Prediction Limit Intrawell Parametric

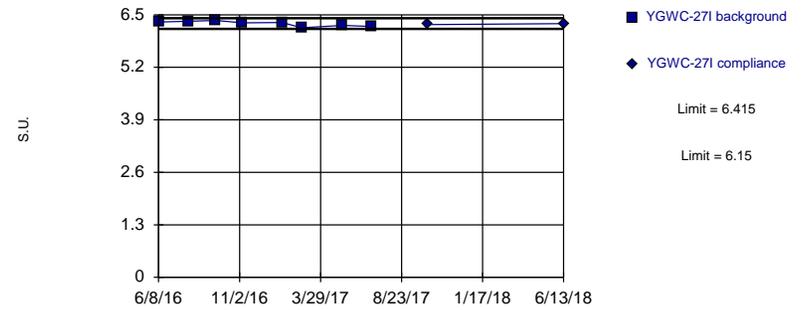


Background Data Summary: Mean=5.248, Std. Dev.=0.07741, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9397, critical = 0.749. Kappa = 2.049 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: pH Analysis Run 12/17/2018 11:39 AM View: Intrawell PL  
 Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Within Limits

### Prediction Limit Intrawell Parametric

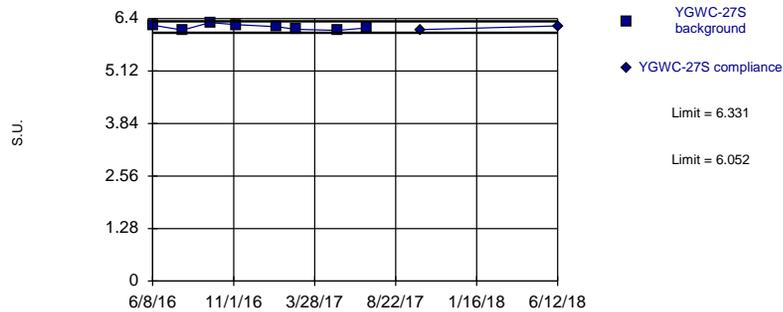


Background Data Summary: Mean=6.283, Std. Dev.=0.06475, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9228, critical = 0.749. Kappa = 2.049 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: pH Analysis Run 12/17/2018 11:39 AM View: Intrawell PL  
 Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Within Limits

### Prediction Limit Intrawell Parametric

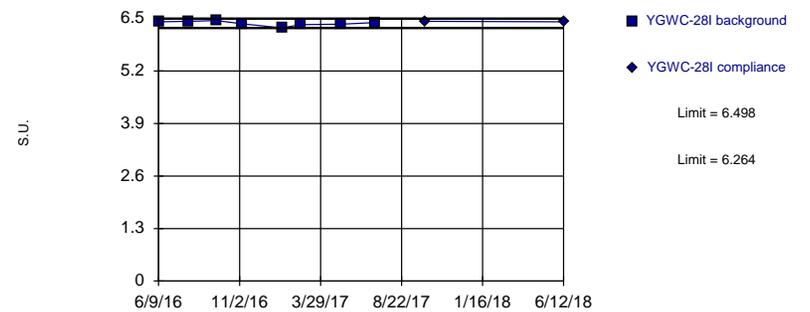


Background Data Summary: Mean=6.191, Std. Dev.=0.06813, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9452, critical = 0.749. Kappa = 2.049 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: pH Analysis Run 12/17/2018 11:39 AM View: Intrawell PL  
 Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Within Limits

### Prediction Limit Intrawell Parametric

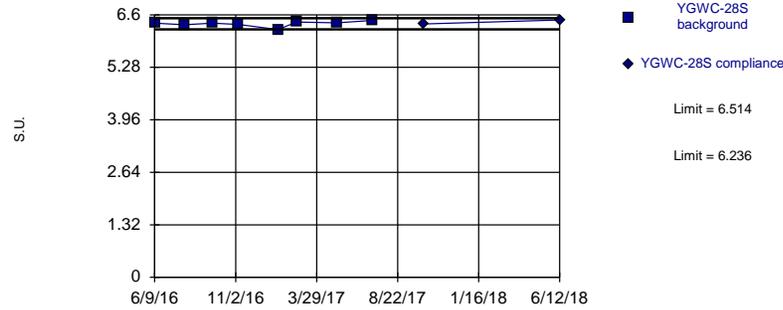


Background Data Summary: Mean=6.381, Std. Dev.=0.05718, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9363, critical = 0.749. Kappa = 2.049 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: pH Analysis Run 12/17/2018 11:39 AM View: Intrawell PL  
 Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Within Limits

Prediction Limit  
Intrawell Parametric

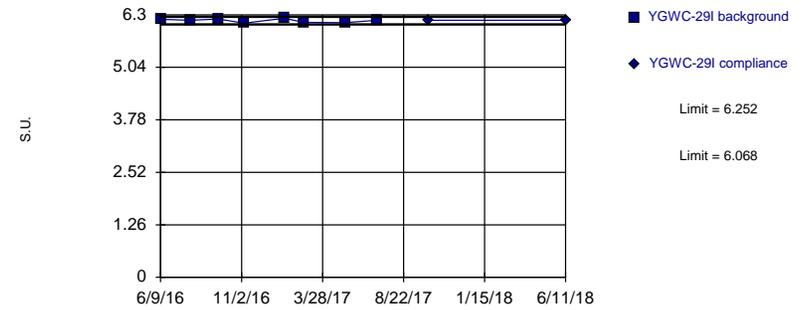


Background Data Summary: Mean=6.375, Std. Dev.=0.06782, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8798, critical = 0.749. Kappa = 2.049 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: pH Analysis Run 12/17/2018 11:39 AM View: Intrawell PL  
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Within Limits

Prediction Limit  
Intrawell Parametric

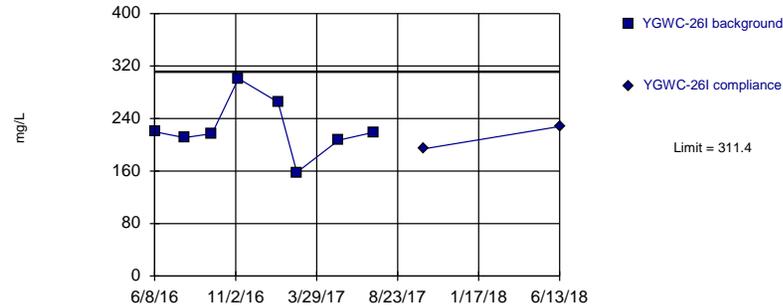


Background Data Summary: Mean=6.16, Std. Dev.=0.04472, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9169, critical = 0.749. Kappa = 2.049 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: pH Analysis Run 12/17/2018 11:39 AM View: Intrawell PL  
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Within Limit

Prediction Limit  
Intrawell Parametric

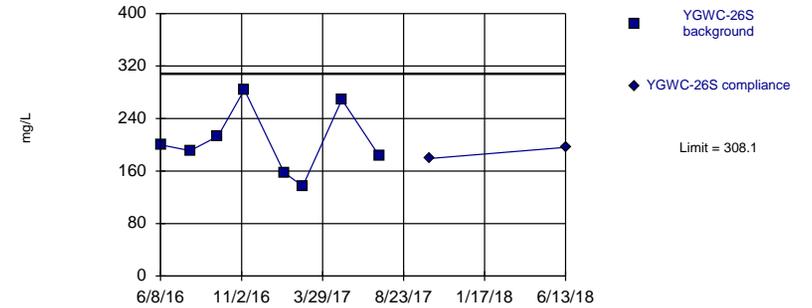


Background Data Summary: Mean=224.8, Std. Dev.=42.27, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.908, critical = 0.749. Kappa = 2.049 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: Total Dissolved Solids Analysis Run 12/17/2018 11:39 AM View: Intrawell PL  
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Within Limit

Prediction Limit  
Intrawell Parametric

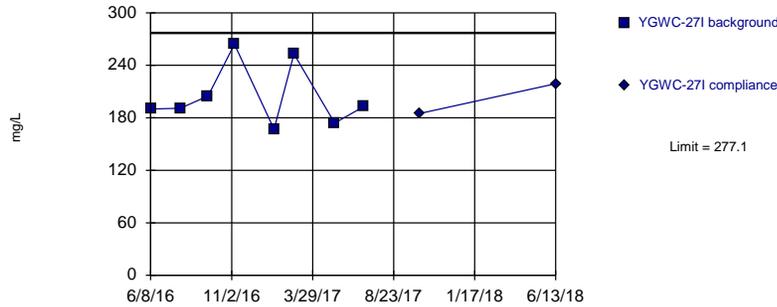


Background Data Summary: Mean=204.4, Std. Dev.=50.62, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9396, critical = 0.749. Kappa = 2.049 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: Total Dissolved Solids Analysis Run 12/17/2018 11:39 AM View: Intrawell PL  
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Within Limit

Prediction Limit  
Intrawell Parametric

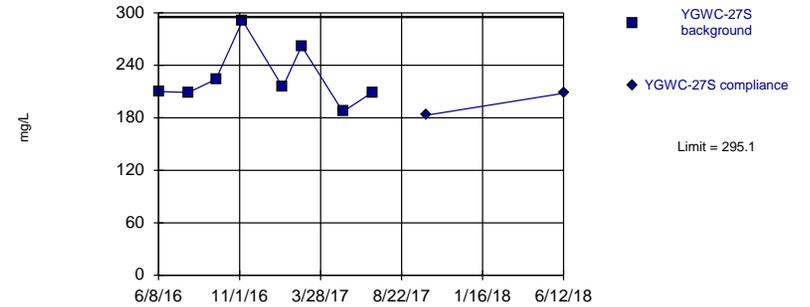


Background Data Summary: Mean=204.6, Std. Dev.=35.36, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8533, critical = 0.749. Kappa = 2.049 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: Total Dissolved Solids Analysis Run 12/17/2018 11:39 AM View: Intrawell PL  
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Within Limit

Prediction Limit  
Intrawell Parametric

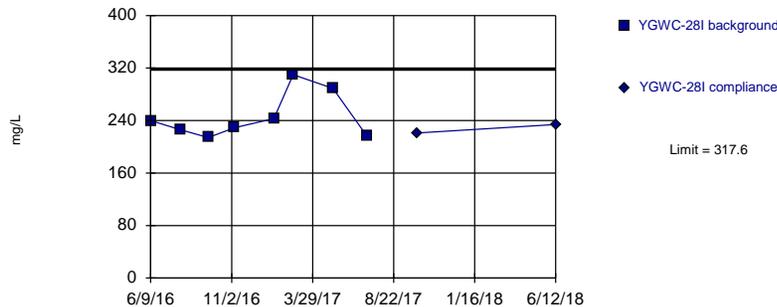


Background Data Summary: Mean=225.9, Std. Dev.=33.81, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8529, critical = 0.749. Kappa = 2.049 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: Total Dissolved Solids Analysis Run 12/17/2018 11:39 AM View: Intrawell PL  
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Within Limit

Prediction Limit  
Intrawell Parametric

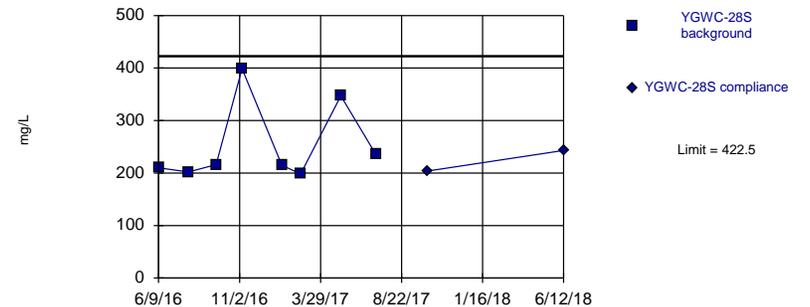


Background Data Summary: Mean=246, Std. Dev.=34.94, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8349, critical = 0.749. Kappa = 2.049 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: Total Dissolved Solids Analysis Run 12/17/2018 11:39 AM View: Intrawell PL  
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Within Limit

Prediction Limit  
Intrawell Parametric

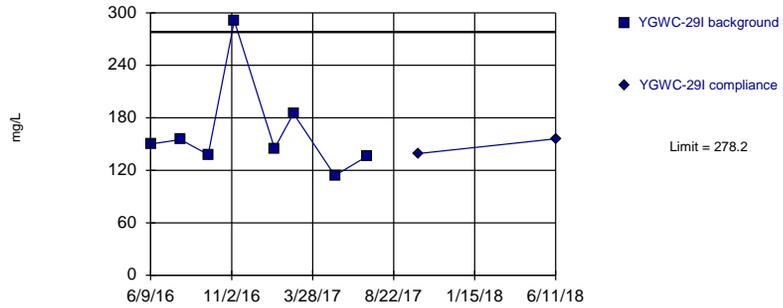


Background Data Summary (based on natural log transformation): Mean=5.499, Std. Dev.=0.2672, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7591, critical = 0.749. Kappa = 2.049 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: Total Dissolved Solids Analysis Run 12/17/2018 11:39 AM View: Intrawell PL  
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Within Limit

### Prediction Limit Intrawell Parametric



Background Data Summary (based on square root transformation): Mean=12.69, Std. Dev.=1.949, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7993, critical = 0.749. Kappa = 2.049 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: Total Dissolved Solids Analysis Run 12/17/2018 11:39 AM View: Intrawell PL  
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

# Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 12/17/2018 11:40 AM View: IntraWell PL

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

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	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)

# Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 12/17/2018 11:40 AM View: IntraWell PL

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

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	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)

# Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 12/17/2018 11:40 AM View: IntraWell PL

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

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	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

# Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 12/17/2018 11:40 AM View: Intrawell PL

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

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	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)

# Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 12/17/2018 11:40 AM View: IntraWell PL

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

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	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

# Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 12/17/2018 11:40 AM View: IntraWell PL

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

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	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)

# Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 12/17/2018 11:40 AM View: IntraWell PL

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

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	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

# Prediction Limit

Constituent: pH (S.U.) Analysis Run 12/17/2018 11:40 AM View: IntraWell PL

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

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	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
6/13/2018		5.82

# Prediction Limit

Constituent: pH (S.U.) Analysis Run 12/17/2018 11:40 AM View: IntraWell PL

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

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	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
6/13/2018		5.12

# Prediction Limit

Constituent: pH (S.U.) Analysis Run 12/17/2018 11:40 AM View: IntraWell PL

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

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	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
6/13/2018		6.28

# Prediction Limit

Constituent: pH (S.U.) Analysis Run 12/17/2018 11:40 AM View: IntraWell PL

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

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	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
6/12/2018		6.22

# Prediction Limit

Constituent: pH (S.U.) Analysis Run 12/17/2018 11:40 AM View: IntraWell PL

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

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	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
6/12/2018		6.42

# Prediction Limit

Constituent: pH (S.U.) Analysis Run 12/17/2018 11:40 AM View: IntraWell PL

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

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	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
6/12/2018		6.47

# Prediction Limit

Constituent: pH (S.U.) Analysis Run 12/17/2018 11:40 AM View: IntraWell PL

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

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	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
6/11/2018		6.17

# Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 12/17/2018 11:40 AM View: Intrawell PL  
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

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	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

# Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 12/17/2018 11:40 AM View: IntraWell PL  
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

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	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

# Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 12/17/2018 11:40 AM View: Intrawell PL  
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

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	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

# Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 12/17/2018 11:40 AM View: Intrawell PL  
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

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	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

# Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 12/17/2018 11:40 AM View: Intrawell PL  
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

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	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

# Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 12/17/2018 11:40 AM View: Intrawell PL  
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

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	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

# Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 12/17/2018 11:40 AM View: Intrawell PL  
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

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	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

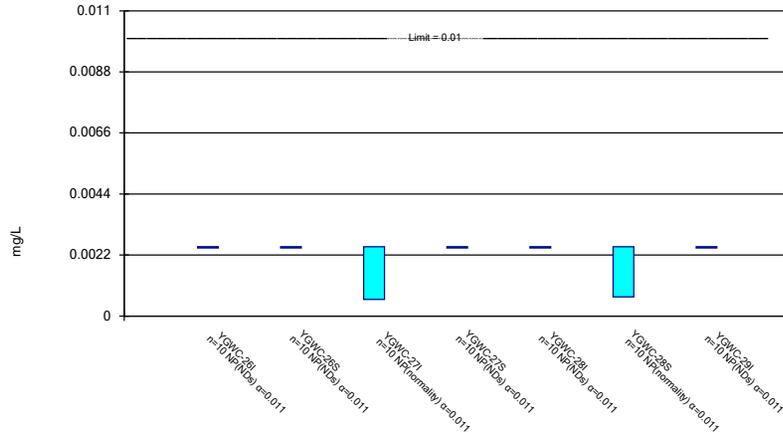
# Confidence Interval

Plant Yates    Client: Southern Company    Data: Yates Ash Pond 2    Printed 12/17/2018, 3:35 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	Transform	Alpha	Method
Arsenic (mg/L)	YGWC-26I	0.0025	0.0025	0.01	No	10	0.0025	0	100	No	0.011	NP (NDs)
Arsenic (mg/L)	YGWC-26S	0.0025	0.0025	0.01	No	10	0.0025	0	100	No	0.011	NP (NDs)
Arsenic (mg/L)	YGWC-27I	0.0025	0.0006	0.01	No	10	0.00182	0.0008892	60	No	0.011	NP (normality)
Arsenic (mg/L)	YGWC-27S	0.0025	0.0025	0.01	No	10	0.0025	0	100	No	0.011	NP (NDs)
Arsenic (mg/L)	YGWC-28I	0.0025	0.0025	0.01	No	10	0.0025	0	100	No	0.011	NP (NDs)
Arsenic (mg/L)	YGWC-28S	0.0025	0.00069	0.01	No	10	0.001808	0.0008959	60	No	0.011	NP (normality)
Arsenic (mg/L)	YGWC-29I	0.0025	0.0025	0.01	No	10	0.0025	0	100	No	0.011	NP (NDs)
Barium (mg/L)	YGWC-26I	0.06857	0.06385	2	No	10	0.06621	0.002642	0	No	0.01	Param.
Barium (mg/L)	YGWC-26S	0.0298	0.02678	2	No	10	0.02829	0.001688	0	No	0.01	Param.
Barium (mg/L)	YGWC-27I	0.0766	0.06308	2	No	10	0.06984	0.00758	0	No	0.01	Param.
Barium (mg/L)	YGWC-27S	0.1116	0.09706	2	No	10	0.1043	0.008146	0	No	0.01	Param.
Barium (mg/L)	YGWC-28I	0.0915	0.0836	2	No	10	0.08891	0.004437	0	No	0.011	NP (normality)
Barium (mg/L)	YGWC-28S	0.2217	0.2069	2	No	10	0.2143	0.008287	0	No	0.01	Param.
Barium (mg/L)	YGWC-29I	0.0783	0.06484	2	No	10	0.07157	0.007544	0	No	0.01	Param.
Cobalt (mg/L)	YGWC-26I	0.005	0.005	0.035	No	10	0.005	0	100	No	0.011	NP (NDs)
Cobalt (mg/L)	YGWC-26S	0.003452	0.001893	0.035	No	10	0.00268	0.0009566	10	sqrt(x)	0.01	Param.
Cobalt (mg/L)	YGWC-27I	0.0495	0.0014	0.035	No	10	0.01591	0.0306	0	No	0.011	NP (normality)
Cobalt (mg/L)	YGWC-27S	0.0026	0.0022	0.035	No	10	0.00268	0.0008257	10	No	0.011	NP (normality)
Cobalt (mg/L)	YGWC-28I	0.005	0.00042	0.035	No	10	0.004542	0.001448	90	No	0.011	NP (NDs)
Cobalt (mg/L)	YGWC-28S	0.0012	0.0008	0.035	No	10	0.001405	0.001272	10	No	0.011	NP (normality)
Cobalt (mg/L)	YGWC-29I	0.005	0.0003	0.035	No	10	0.003212	0.00231	60	No	0.011	NP (normality)
Combined Radium 226 + 228 (pCi/L)	YGWC-26I	1.617	0.3116	5	No	10	1.221	1.936	10	ln(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	YGWC-26S	0.8809	0.5148	5	No	10	0.7005	0.2234	10	x^(1/3)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	YGWC-27I	4.027	2.247	5	No	10	3.137	0.9974	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	YGWC-27S	1.063	0.4861	5	No	10	0.7745	0.3232	10	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	YGWC-28I	0.7536	0.268	5	No	10	0.5108	0.2721	10	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	YGWC-28S	0.9598	0.3338	5	No	10	0.6468	0.3508	10	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	YGWC-29I	1.354	0.5913	5	No	10	0.9728	0.4276	10	No	0.01	Param.
Fluoride (mg/L)	YGWC-26I	0.15	0.05	4	No	11	0.1138	0.03739	45.45	No	0.006	NP (normality)
Fluoride (mg/L)	YGWC-26S	0.4873	0.1647	4	No	11	0.1831	0.1208	45.45	No	0.01	Param.
Fluoride (mg/L)	YGWC-27I	0.15	0.07	4	No	11	0.136	0.02905	72.73	No	0.006	NP (normality)
Fluoride (mg/L)	YGWC-27S	0.3695	0.1441	4	No	11	0.2125	0.1174	18.18	No	0.01	Param.
Fluoride (mg/L)	YGWC-28I	0.24	0.08	4	No	11	0.1553	0.087	36.36	No	0.006	NP (Cohens/xfrm)
Fluoride (mg/L)	YGWC-28S	0.34	0.13	4	No	11	0.2364	0.1092	18.18	No	0.006	NP (Cohens/xfrm)
Fluoride (mg/L)	YGWC-29I	0.15	0.06	4	No	11	0.1186	0.03688	54.55	No	0.006	NP (normality)
Lithium (mg/L)	YGWC-26I	0.007013	0.006247	0.04	No	10	0.00663	0.0004296	0	No	0.01	Param.
Lithium (mg/L)	YGWC-26S	0.025	0.025	0.04	No	10	0.025	0	100	No	0.011	NP (NDs)
Lithium (mg/L)	YGWC-27I	0.01176	0.008201	0.04	No	10	0.00998	0.001994	0	No	0.01	Param.
Lithium (mg/L)	YGWC-27S	0.025	0.025	0.04	No	10	0.025	0	100	No	0.011	NP (NDs)
Lithium (mg/L)	YGWC-28I	0.00729	0.00673	0.04	No	10	0.00701	0.0003143	0	No	0.01	Param.
Lithium (mg/L)	YGWC-28S	0.025	0.025	0.04	No	10	0.025	0	100	No	0.011	NP (NDs)
Lithium (mg/L)	YGWC-29I	0.007238	0.005542	0.04	No	10	0.00639	0.0009504	0	No	0.01	Param.
Molybdenum (mg/L)	YGWC-26I	0.005	0.005	0.1	No	10	0.005	0	100	No	0.011	NP (NDs)
Molybdenum (mg/L)	YGWC-26S	0.005	0.005	0.1	No	10	0.005	0	100	No	0.011	NP (NDs)
Molybdenum (mg/L)	YGWC-27I	0.005	0.0011	0.1	No	10	0.0039	0.001781	70	No	0.011	NP (normality)
Molybdenum (mg/L)	YGWC-27S	0.005	0.005	0.1	No	10	0.005	0	100	No	0.011	NP (NDs)
Molybdenum (mg/L)	YGWC-28I	0.005	0.0011	0.1	No	10	0.00353	0.0019	60	No	0.011	NP (normality)
Molybdenum (mg/L)	YGWC-28S	0.005	0.0006	0.1	No	10	0.00413	0.001834	80	No	0.011	NP (NDs)
Molybdenum (mg/L)	YGWC-29I	0.005	0.005	0.1	No	10	0.005	0	100	No	0.011	NP (NDs)

### Non-Parametric Confidence Interval

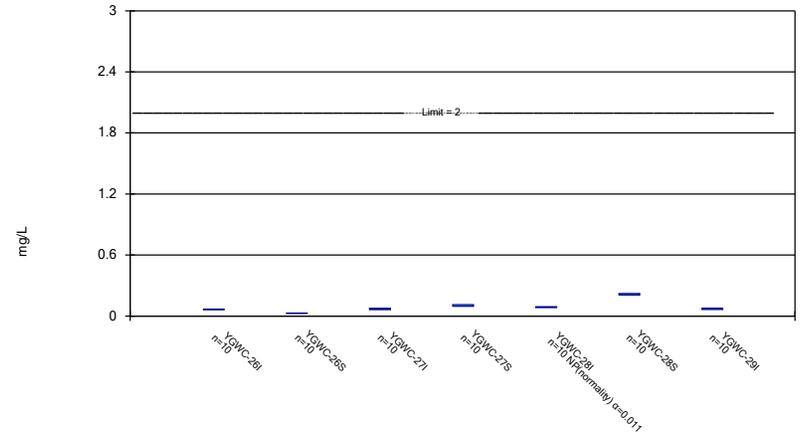
Compliance Limit is not exceeded.



Constituent: Arsenic Analysis Run 12/17/2018 3:34 PM View: Confidence Interval  
 Plant Yates Client: Southern Company Data: Yates Ash Pond 2

### Parametric and Non-Parametric (NP) Confidence Interval

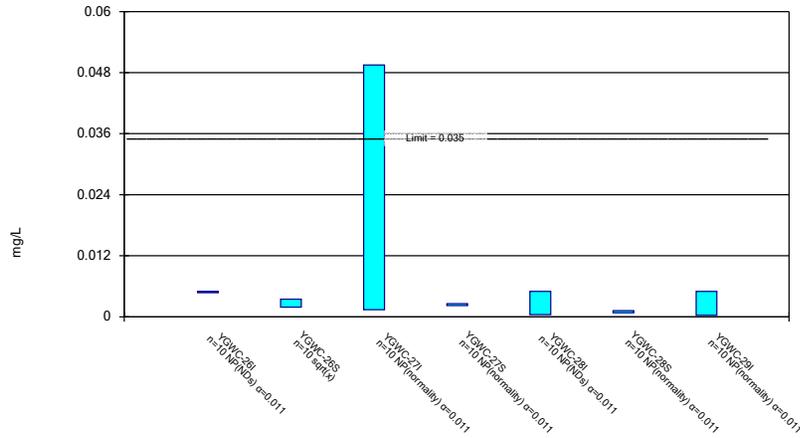
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Barium Analysis Run 12/17/2018 3:34 PM View: Confidence Interval  
 Plant Yates Client: Southern Company Data: Yates Ash Pond 2

### Parametric and Non-Parametric (NP) Confidence Interval

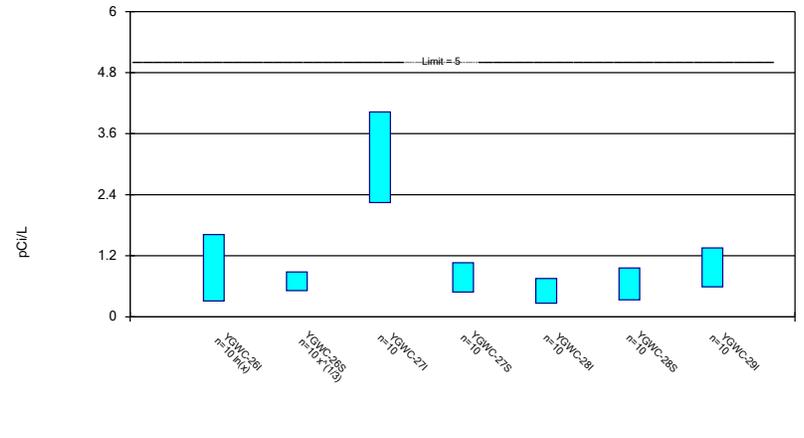
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Cobalt Analysis Run 12/17/2018 3:34 PM View: Confidence Interval  
 Plant Yates Client: Southern Company Data: Yates Ash Pond 2

### Parametric Confidence Interval

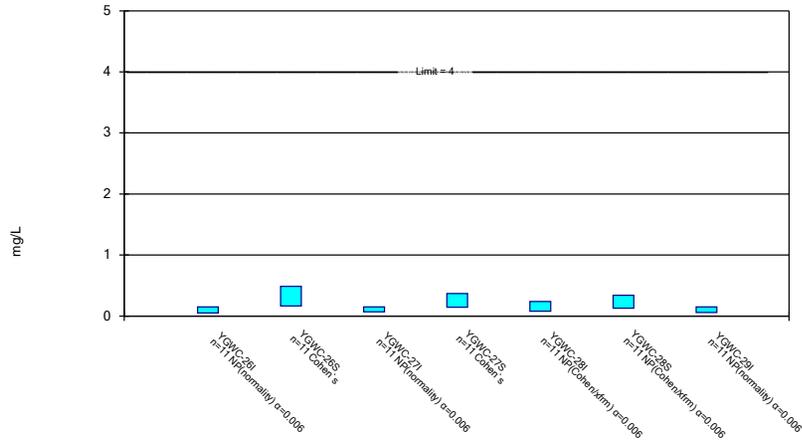
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Combined Radium 226 + 228 Analysis Run 12/17/2018 3:34 PM View: Confidence Interval  
 Plant Yates Client: Southern Company Data: Yates Ash Pond 2

### Parametric and Non-Parametric (NP) Confidence Interval

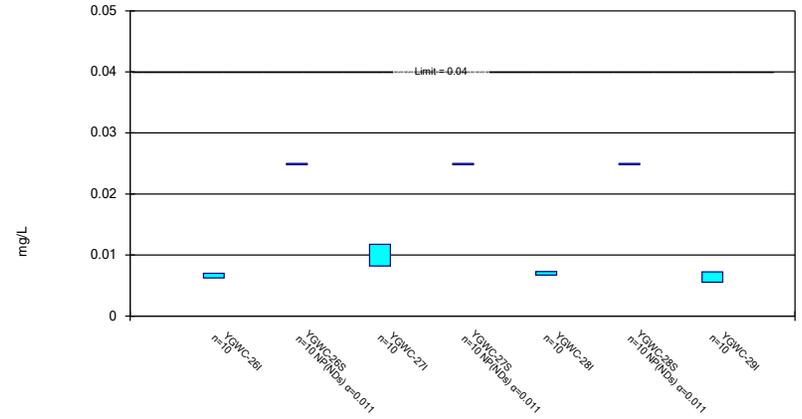
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Fluoride Analysis Run 12/17/2018 3:34 PM View: Confidence Interval  
 Plant Yates Client: Southern Company Data: Yates Ash Pond 2

### Parametric and Non-Parametric (NP) Confidence Interval

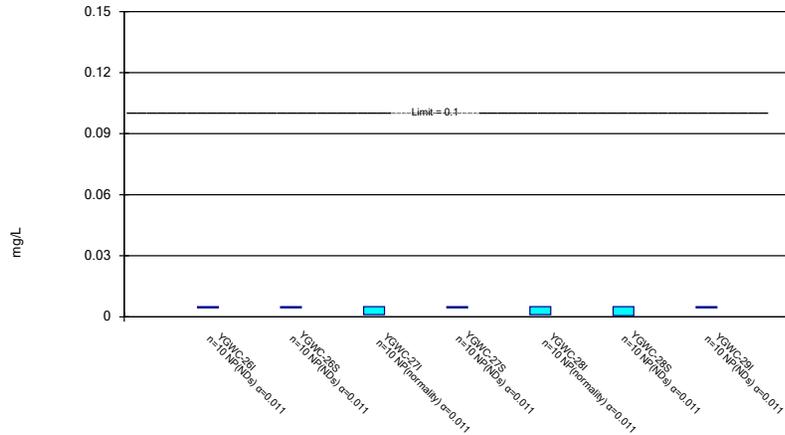
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Lithium Analysis Run 12/17/2018 3:34 PM View: Confidence Interval  
 Plant Yates Client: Southern Company Data: Yates Ash Pond 2

### Non-Parametric Confidence Interval

Compliance Limit is not exceeded.



Constituent: Molybdenum Analysis Run 12/17/2018 3:34 PM View: Confidence Interval  
 Plant Yates Client: Southern Company Data: Yates Ash Pond 2

# Confidence Interval

Constituent: Arsenic (mg/L) Analysis Run 12/17/2018 3:35 PM View: Confidence Interval

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	<0.005	<0.005	0.0011 (J)	<0.005			
6/9/2016					<0.005	0.00094 (J)	<0.005
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				
Mean	0.0025	0.0025	0.00182	0.0025	0.0025	0.001808	0.0025
Std. Dev.	0	0	0.0008892	0	0	0.0008959	0
Upper Lim.	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025
Lower Lim.	0.0025	0.0025	0.0006	0.0025	0.0025	0.00069	0.0025

# Confidence Interval

Constituent: Barium (mg/L) Analysis Run 12/17/2018 3:35 PM View: Confidence Interval

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				
Mean	0.06621	0.02829	0.06984	0.1043	0.08891	0.2143	0.07157
Std. Dev.	0.002642	0.001688	0.00758	0.008146	0.004437	0.008287	0.007544
Upper Lim.	0.06857	0.0298	0.0766	0.1116	0.0915	0.2217	0.0783
Lower Lim.	0.06385	0.02678	0.06308	0.09706	0.0836	0.2069	0.06484

# Confidence Interval

Constituent: Cobalt (mg/L) Analysis Run 12/17/2018 3:35 PM View: Confidence Interval

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	<0.01	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				
Mean	0.005	0.00268	0.01591	0.00268	0.004542	0.001405	0.003212
Std. Dev.	0	0.0009566	0.0306	0.0008257	0.001448	0.001272	0.00231
Upper Lim.	0.005	0.003452	0.0495	0.0026	0.005	0.0012	0.005
Lower Lim.	0.005	0.001893	0.0014	0.0022	0.00042	0.0008	0.0003

# Confidence Interval

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 12/17/2018 3:35 PM View: Confidence Interval

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	<1.33	<1.33	3.44		<1.33	<1.33	
1/19/2017				<1.33			<1.33
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				
<b>Mean</b>	1.221	0.7005	3.137	0.7745	0.5108	0.6468	0.9728
<b>Std. Dev.</b>	1.936	0.2234	0.9974	0.3232	0.2721	0.3508	0.4276
<b>Upper Lim.</b>	1.617	0.8809	4.027	1.063	0.7536	0.9598	1.354
<b>Lower Lim.</b>	0.3116	0.5148	2.247	0.4861	0.268	0.3338	0.5913

# Confidence Interval

Constituent: Fluoride (mg/L) Analysis Run 12/17/2018 3:35 PM View: Confidence Interval

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)	<0.3	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				
Mean	0.1138	0.1831	0.136	0.2125	0.1553	0.2364	0.1186
Std. Dev.	0.03739	0.1208	0.02905	0.1174	0.087	0.1092	0.03688
Upper Lim.	0.15	0.4873	0.15	0.3695	0.24	0.34	0.15
Lower Lim.	0.05	0.1647	0.07	0.1441	0.08	0.13	0.06

# Confidence Interval

Constituent: Lithium (mg/L) Analysis Run 12/17/2018 3:35 PM View: Confidence Interval

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	<0.05	0.0067	<0.05			
6/9/2016					0.0073	<0.05	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)				
Mean	0.00663	0.025	0.00998	0.025	0.00701	0.025	0.00639
Std. Dev.	0.0004296	0	0.001994	0	0.0003143	0	0.0009504
Upper Lim.	0.007013	0.025	0.01176	0.025	0.00729	0.025	0.007238
Lower Lim.	0.006247	0.025	0.008201	0.025	0.00673	0.025	0.005542

# Confidence Interval

Constituent: Molybdenum (mg/L) Analysis Run 12/17/2018 3:35 PM View: Confidence Interval

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	<0.01	<0.01	0.0011 (J)	<0.01			
6/9/2016					0.0011 (J)	<0.01	<0.01
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				
Mean	0.005	0.005	0.0039	0.005	0.00353	0.00413	0.005
Std. Dev.	0	0	0.001781	0	0.0019	0.001834	0
Upper Lim.	0.005	0.005	0.005	0.005	0.005	0.005	0.005
Lower Lim.	0.005	0.005	0.0011	0.005	0.0011	0.0006	0.005

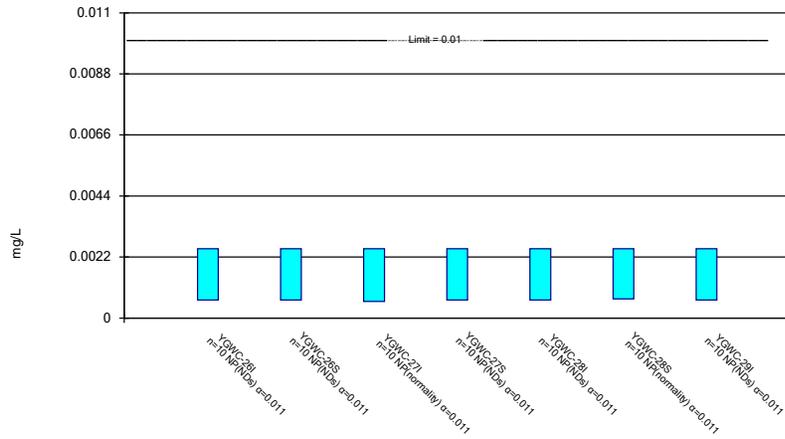
# Confidence Interval

Plant Yates    Client: Southern Company    Data: Yates Ash Pond 2    Printed 1/23/2019, 3:25 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Compliance</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Arsenic (mg/L)	YGWC-26I	0.0025	0.00065	0.01	No	10	100	No	0.011	NP (NDs)
Arsenic (mg/L)	YGWC-26S	0.0025	0.00065	0.01	No	10	100	No	0.011	NP (NDs)
Arsenic (mg/L)	YGWC-27I	0.0025	0.0006	0.01	No	10	60	No	0.011	NP (normality)
Arsenic (mg/L)	YGWC-27S	0.0025	0.00065	0.01	No	10	100	No	0.011	NP (NDs)
Arsenic (mg/L)	YGWC-28I	0.0025	0.00065	0.01	No	10	100	No	0.011	NP (NDs)
Arsenic (mg/L)	YGWC-28S	0.0025	0.00069	0.01	No	10	60	No	0.011	NP (normality)
Arsenic (mg/L)	YGWC-29I	0.0025	0.00065	0.01	No	10	100	No	0.011	NP (NDs)
Barium (mg/L)	YGWC-26I	0.06857	0.06385	2	No	10	0	No	0.01	Param.
Barium (mg/L)	YGWC-26S	0.0298	0.02678	2	No	10	0	No	0.01	Param.
Barium (mg/L)	YGWC-27I	0.0766	0.06308	2	No	10	0	No	0.01	Param.
Barium (mg/L)	YGWC-27S	0.1116	0.09706	2	No	10	0	No	0.01	Param.
Barium (mg/L)	YGWC-28I	0.0915	0.0836	2	No	10	0	No	0.011	NP (normality)
Barium (mg/L)	YGWC-28S	0.2217	0.2069	2	No	10	0	No	0.01	Param.
Barium (mg/L)	YGWC-29I	0.0783	0.06484	2	No	10	0	No	0.01	Param.
Cobalt (mg/L)	YGWC-26I	0.005	0.00125	0.035	No	10	100	No	0.011	NP (NDs)
Cobalt (mg/L)	YGWC-26S	0.003452	0.001893	0.035	No	10	10	sqrt(x)	0.01	Param.
Cobalt (mg/L)	YGWC-27I	0.0495	0.0014	0.035	No	10	0	No	0.011	NP (normality)
Cobalt (mg/L)	YGWC-27S	0.0026	0.0022	0.035	No	10	10	No	0.011	NP (normality)
Cobalt (mg/L)	YGWC-28I	0.005	0.00042	0.035	No	10	90	No	0.011	NP (NDs)
Cobalt (mg/L)	YGWC-28S	0.0012	0.0008	0.035	No	10	10	No	0.011	NP (normality)
Cobalt (mg/L)	YGWC-29I	0.005	0.0003	0.035	No	10	60	No	0.011	NP (normality)
Combined Radium 226 + 228 (pCi/L)	YGWC-26I	1.624	0.3131	5	No	10	10	ln(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	YGWC-26S	0.8809	0.5148	5	No	10	10	x^(1/3)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	YGWC-27I	4.027	2.247	5	No	10	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	YGWC-27S	1.063	0.4861	5	No	10	10	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	YGWC-28I	0.7543	0.2683	5	No	10	10	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	YGWC-28S	0.966	0.3386	5	No	10	10	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	YGWC-29I	1.357	0.6052	5	No	10	10	No	0.01	Param.
Fluoride (mg/L)	YGWC-26I	0.15	0.05	4	No	11	45.45	No	0.006	NP (normality)
Fluoride (mg/L)	YGWC-26S	0.4873	0.1647	4	No	11	45.45	No	0.01	Param.
Fluoride (mg/L)	YGWC-27I	0.15	0.07	4	No	11	72.73	No	0.006	NP (normality)
Fluoride (mg/L)	YGWC-27S	0.3695	0.1441	4	No	11	18.18	No	0.01	Param.
Fluoride (mg/L)	YGWC-28I	0.24	0.08	4	No	11	36.36	No	0.006	NP (Cohens/xfrm)
Fluoride (mg/L)	YGWC-28S	0.34	0.13	4	No	11	18.18	No	0.006	NP (Cohens/xfrm)
Fluoride (mg/L)	YGWC-29I	0.15	0.06	4	No	11	54.55	No	0.006	NP (normality)
Lithium (mg/L)	YGWC-26I	0.007013	0.006247	0.025	No	10	0	No	0.01	Param.
Lithium (mg/L)	YGWC-26S	0.025	0.0025	0.025	No	10	100	No	0.011	NP (NDs)
Lithium (mg/L)	YGWC-27I	0.01176	0.008201	0.025	No	10	0	No	0.01	Param.
Lithium (mg/L)	YGWC-27S	0.025	0.0025	0.025	No	10	100	No	0.011	NP (NDs)
Lithium (mg/L)	YGWC-28I	0.00729	0.00673	0.025	No	10	0	No	0.01	Param.
Lithium (mg/L)	YGWC-28S	0.025	0.0025	0.025	No	10	100	No	0.011	NP (NDs)
Lithium (mg/L)	YGWC-29I	0.007238	0.005542	0.025	No	10	0	No	0.01	Param.
Molybdenum (mg/L)	YGWC-26I	0.005	0.005	0.014	No	10	100	No	0.011	NP (NDs)
Molybdenum (mg/L)	YGWC-26S	0.005	0.005	0.014	No	10	100	No	0.011	NP (NDs)
Molybdenum (mg/L)	YGWC-27I	0.005	0.0011	0.014	No	10	70	No	0.011	NP (normality)
Molybdenum (mg/L)	YGWC-27S	0.005	0.005	0.014	No	10	100	No	0.011	NP (NDs)
Molybdenum (mg/L)	YGWC-28I	0.005	0.0011	0.014	No	10	60	No	0.011	NP (normality)
Molybdenum (mg/L)	YGWC-28S	0.005	0.0006	0.014	No	10	80	No	0.011	NP (NDs)
Molybdenum (mg/L)	YGWC-29I	0.005	0.005	0.014	No	10	100	No	0.011	NP (NDs)

### Non-Parametric Confidence Interval

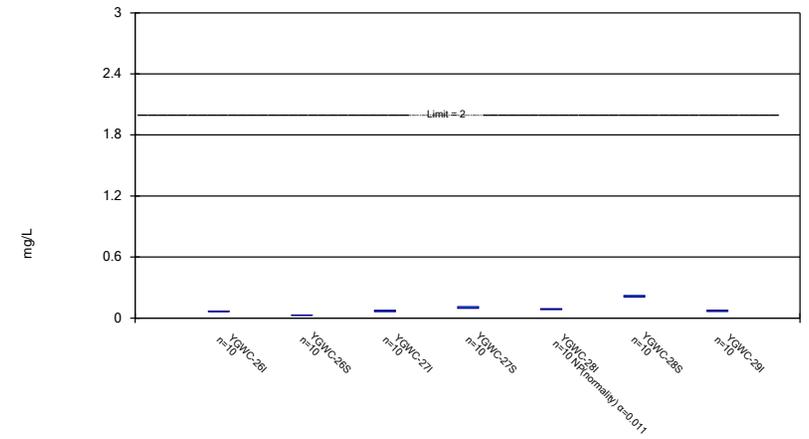
Compliance Limit is not exceeded.



Constituent: Arsenic Analysis Run 1/23/2019 3:25 PM View: Confidence Interval  
 Plant Yates Client: Southern Company Data: Yates Ash Pond 2

### Parametric and Non-Parametric (NP) Confidence Interval

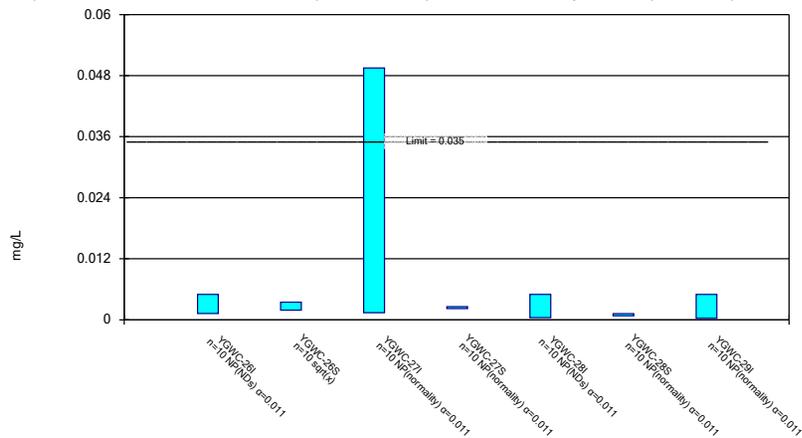
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Barium Analysis Run 1/23/2019 3:25 PM View: Confidence Interval  
 Plant Yates Client: Southern Company Data: Yates Ash Pond 2

### Parametric and Non-Parametric (NP) Confidence Interval

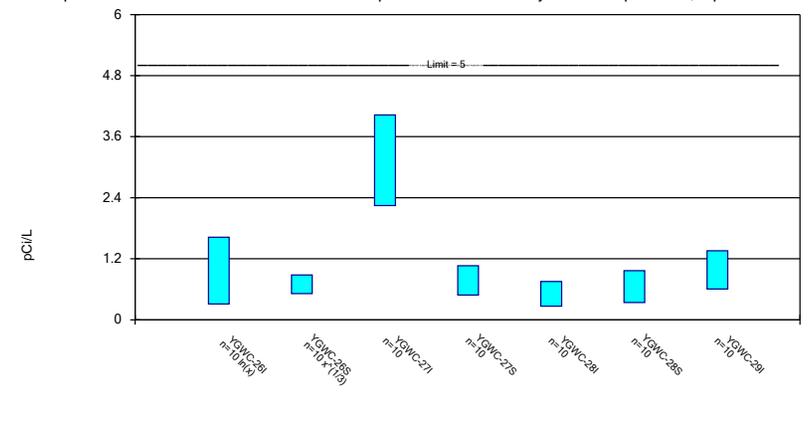
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Cobalt Analysis Run 1/23/2019 3:25 PM View: Confidence Interval  
 Plant Yates Client: Southern Company Data: Yates Ash Pond 2

### Parametric Confidence Interval

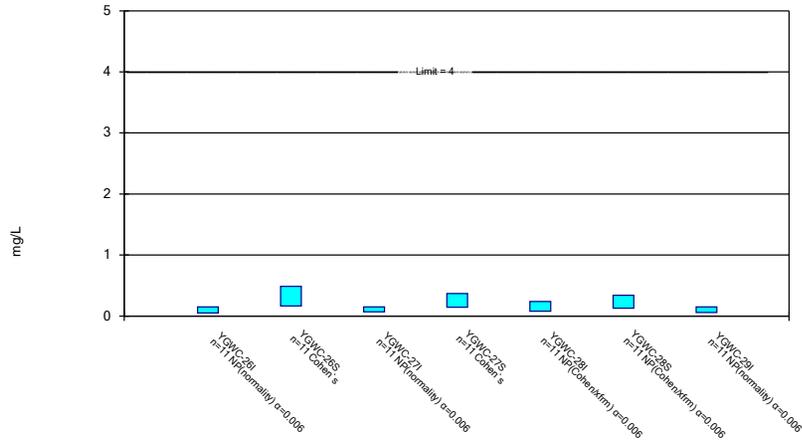
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Combined Radium 226 + 228 Analysis Run 1/23/2019 3:25 PM View: Confidence Interval  
 Plant Yates Client: Southern Company Data: Yates Ash Pond 2

### Parametric and Non-Parametric (NP) Confidence Interval

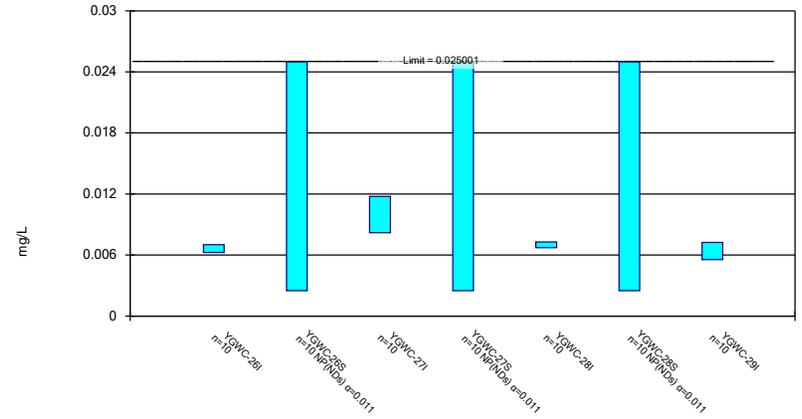
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Fluoride Analysis Run 1/23/2019 3:25 PM View: Confidence Interval  
 Plant Yates Client: Southern Company Data: Yates Ash Pond 2

### Parametric and Non-Parametric (NP) Confidence Interval

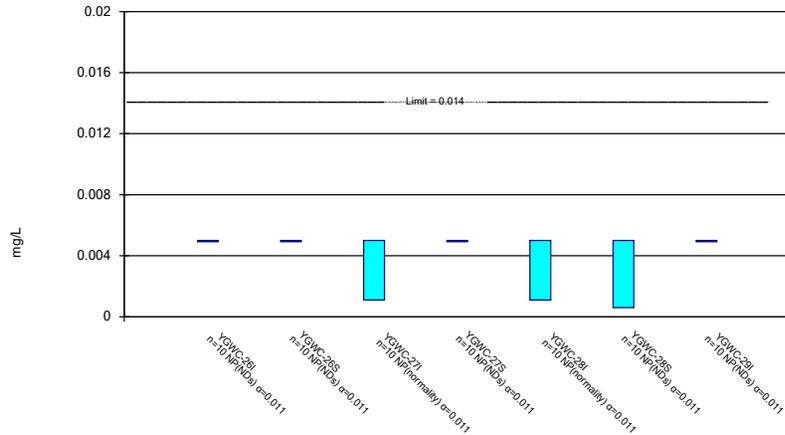
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Lithium Analysis Run 1/23/2019 3:25 PM View: Confidence Interval  
 Plant Yates Client: Southern Company Data: Yates Ash Pond 2

### Non-Parametric Confidence Interval

Compliance Limit is not exceeded.



Constituent: Molybdenum Analysis Run 1/23/2019 3:25 PM View: Confidence Interval  
 Plant Yates Client: Southern Company Data: Yates Ash Pond 2

# Confidence Interval

Constituent: Arsenic (mg/L) Analysis Run 1/23/2019 3:25 PM View: Confidence Interval

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				
<b>Mean</b>	0.002315	0.002315	0.00182	0.002315	0.002315	0.001808	0.002315
<b>Std. Dev.</b>	0.000585	0.000585	0.0008892	0.000585	0.000585	0.0008959	0.000585
<b>Upper Lim.</b>	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025
<b>Lower Lim.</b>	0.00065	0.00065	0.0006	0.00065	0.00065	0.00069	0.00065

# Confidence Interval

Constituent: Barium (mg/L) Analysis Run 1/23/2019 3:25 PM View: Confidence Interval

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				
<b>Mean</b>	0.06621	0.02829	0.06984	0.1043	0.08891	0.2143	0.07157
<b>Std. Dev.</b>	0.002642	0.001688	0.00758	0.008146	0.004437	0.008287	0.007544
<b>Upper Lim.</b>	0.06857	0.0298	0.0766	0.1116	0.0915	0.2217	0.0783
<b>Lower Lim.</b>	0.06385	0.02678	0.06308	0.09706	0.0836	0.2069	0.06484

# Confidence Interval

Constituent: Cobalt (mg/L) Analysis Run 1/23/2019 3:25 PM View: Confidence Interval

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				
Mean	0.004625	0.00268	0.01591	0.00268	0.004542	0.001405	0.003212
Std. Dev.	0.001186	0.0009566	0.0306	0.0008257	0.001448	0.001272	0.00231
Upper Lim.	0.005	0.003452	0.0495	0.0026	0.005	0.0012	0.005
Lower Lim.	0.00125	0.001893	0.0014	0.0022	0.00042	0.0008	0.0003

# Confidence Interval

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 1/23/2019 3:25 PM View: Confidence Interval

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				
<b>Mean</b>	1.224	0.7005	3.137	0.7745	0.5113	0.6523	0.9813
<b>Std. Dev.</b>	1.935	0.2234	0.9974	0.3232	0.2724	0.3516	0.4216
<b>Upper Lim.</b>	1.624	0.8809	4.027	1.063	0.7543	0.966	1.357
<b>Lower Lim.</b>	0.3131	0.5148	2.247	0.4861	0.2683	0.3386	0.6052

# Confidence Interval

Constituent: Fluoride (mg/L) Analysis Run 1/23/2019 3:25 PM View: Confidence Interval

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				
Mean	0.1138	0.1785	0.136	0.2125	0.1553	0.2364	0.1186
Std. Dev.	0.03739	0.1231	0.02905	0.1174	0.087	0.1092	0.03688
Upper Lim.	0.15	0.4873	0.15	0.3695	0.24	0.34	0.15
Lower Lim.	0.05	0.1647	0.07	0.1441	0.08	0.13	0.06

# Confidence Interval

Constituent: Lithium (mg/L) Analysis Run 1/23/2019 3:25 PM View: Confidence Interval

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)				
<b>Mean</b>	0.00663	0.02275	0.00998	0.02275	0.00701	0.02275	0.00639
<b>Std. Dev.</b>	0.0004296	0.007115	0.001994	0.007115	0.0003143	0.007115	0.0009504
<b>Upper Lim.</b>	0.007013	0.025	0.01176	0.025	0.00729	0.025	0.007238
<b>Lower Lim.</b>	0.006247	0.0025	0.008201	0.0025	0.00673	0.0025	0.005542

# Confidence Interval

Constituent: Molybdenum (mg/L) Analysis Run 1/23/2019 3:25 PM View: Confidence Interval

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				
<b>Mean</b>	0.00525	0.00525	0.0039	0.00525	0.00353	0.00438	0.00525
<b>Std. Dev.</b>	0.0007906	0.0007906	0.001781	0.0007906	0.0019	0.002115	0.0007906
<b>Upper Lim.</b>	0.005	0.005	0.005	0.005	0.005	0.005	0.005
<b>Lower Lim.</b>	0.005	0.005	0.0011	0.005	0.0011	0.0006	0.005

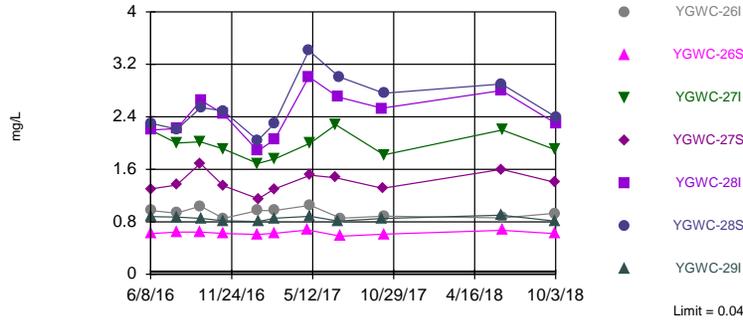
# Interwell Prediction Limit

Plant Yates    Client: Southern Company    Data: Yates Ash Pond 2    Printed 12/17/2018, 11:29 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>
<b>Boron (mg/L)</b>	<b>YGWC-26I</b>	<b>0.04</b>	<b>10/2/2018</b>	<b>0.93</b>	<b>Yes</b>	<b>77</b>	<b>64.94</b>	<b>n/a</b>	<b>0.0003248</b>	<b>NP Inter (NDs) 1 of 2</b>
<b>Boron (mg/L)</b>	<b>YGWC-26S</b>	<b>0.04</b>	<b>10/2/2018</b>	<b>0.62</b>	<b>Yes</b>	<b>77</b>	<b>64.94</b>	<b>n/a</b>	<b>0.0003248</b>	<b>NP Inter (NDs) 1 of 2</b>
<b>Boron (mg/L)</b>	<b>YGWC-27I</b>	<b>0.04</b>	<b>10/2/2018</b>	<b>1.9</b>	<b>Yes</b>	<b>77</b>	<b>64.94</b>	<b>n/a</b>	<b>0.0003248</b>	<b>NP Inter (NDs) 1 of 2</b>
<b>Boron (mg/L)</b>	<b>YGWC-27S</b>	<b>0.04</b>	<b>10/2/2018</b>	<b>1.4</b>	<b>Yes</b>	<b>77</b>	<b>64.94</b>	<b>n/a</b>	<b>0.0003248</b>	<b>NP Inter (NDs) 1 of 2</b>
<b>Boron (mg/L)</b>	<b>YGWC-28I</b>	<b>0.04</b>	<b>10/3/2018</b>	<b>2.3</b>	<b>Yes</b>	<b>77</b>	<b>64.94</b>	<b>n/a</b>	<b>0.0003248</b>	<b>NP Inter (NDs) 1 of 2</b>
<b>Boron (mg/L)</b>	<b>YGWC-28S</b>	<b>0.04</b>	<b>10/3/2018</b>	<b>2.4</b>	<b>Yes</b>	<b>77</b>	<b>64.94</b>	<b>n/a</b>	<b>0.0003248</b>	<b>NP Inter (NDs) 1 of 2</b>
<b>Boron (mg/L)</b>	<b>YGWC-29I</b>	<b>0.04</b>	<b>10/2/2018</b>	<b>0.81</b>	<b>Yes</b>	<b>77</b>	<b>64.94</b>	<b>n/a</b>	<b>0.0003248</b>	<b>NP Inter (NDs) 1 of 2</b>
Calcium (mg/L)	YGWC-26I	30.7	10/2/2018	14.7	No	77	0	n/a	0.0003248	NP Inter (normality) 1 of 2
Calcium (mg/L)	YGWC-26S	30.7	10/2/2018	12.4	No	77	0	n/a	0.0003248	NP Inter (normality) 1 of 2
Calcium (mg/L)	YGWC-27I	30.7	10/2/2018	29.2	No	77	0	n/a	0.0003248	NP Inter (normality) 1 of 2
<b>Calcium (mg/L)</b>	<b>YGWC-27S</b>	<b>30.7</b>	<b>10/2/2018</b>	<b>39.1</b>	<b>Yes</b>	<b>77</b>	<b>0</b>	<b>n/a</b>	<b>0.0003248</b>	<b>NP Inter (normality) 1 of 2</b>
<b>Calcium (mg/L)</b>	<b>YGWC-28I</b>	<b>30.7</b>	<b>10/3/2018</b>	<b>32.6</b>	<b>Yes</b>	<b>77</b>	<b>0</b>	<b>n/a</b>	<b>0.0003248</b>	<b>NP Inter (normality) 1 of 2</b>
Calcium (mg/L)	YGWC-28S	30.7	10/3/2018	25.8	No	77	0	n/a	0.0003248	NP Inter (normality) 1 of 2
Calcium (mg/L)	YGWC-29I	30.7	10/2/2018	11.7	No	77	0	n/a	0.0003248	NP Inter (normality) 1 of 2
<b>Chloride (mg/L)</b>	<b>YGWC-26I</b>	<b>4.9</b>	<b>10/2/2018</b>	<b>18.3</b>	<b>Yes</b>	<b>77</b>	<b>0</b>	<b>n/a</b>	<b>0.0003248</b>	<b>NP Inter (normality) 1 of 2</b>
<b>Chloride (mg/L)</b>	<b>YGWC-26S</b>	<b>4.9</b>	<b>10/2/2018</b>	<b>14</b>	<b>Yes</b>	<b>77</b>	<b>0</b>	<b>n/a</b>	<b>0.0003248</b>	<b>NP Inter (normality) 1 of 2</b>
<b>Chloride (mg/L)</b>	<b>YGWC-27I</b>	<b>4.9</b>	<b>10/2/2018</b>	<b>13.8</b>	<b>Yes</b>	<b>77</b>	<b>0</b>	<b>n/a</b>	<b>0.0003248</b>	<b>NP Inter (normality) 1 of 2</b>
<b>Chloride (mg/L)</b>	<b>YGWC-27S</b>	<b>4.9</b>	<b>10/2/2018</b>	<b>19.9</b>	<b>Yes</b>	<b>77</b>	<b>0</b>	<b>n/a</b>	<b>0.0003248</b>	<b>NP Inter (normality) 1 of 2</b>
<b>Chloride (mg/L)</b>	<b>YGWC-28I</b>	<b>4.9</b>	<b>10/3/2018</b>	<b>17.7</b>	<b>Yes</b>	<b>77</b>	<b>0</b>	<b>n/a</b>	<b>0.0003248</b>	<b>NP Inter (normality) 1 of 2</b>
<b>Chloride (mg/L)</b>	<b>YGWC-28S</b>	<b>4.9</b>	<b>10/3/2018</b>	<b>20.2</b>	<b>Yes</b>	<b>77</b>	<b>0</b>	<b>n/a</b>	<b>0.0003248</b>	<b>NP Inter (normality) 1 of 2</b>
<b>Chloride (mg/L)</b>	<b>YGWC-29I</b>	<b>4.9</b>	<b>10/2/2018</b>	<b>13.4</b>	<b>Yes</b>	<b>77</b>	<b>0</b>	<b>n/a</b>	<b>0.0003248</b>	<b>NP Inter (normality) 1 of 2</b>
<b>Sulfate (mg/L)</b>	<b>YGWC-26I</b>	<b>12.01</b>	<b>10/2/2018</b>	<b>83.9</b>	<b>Yes</b>	<b>77</b>	<b>2.597</b>	<b>No</b>	<b>0.001075</b>	<b>Param Inter 1 of 2</b>
<b>Sulfate (mg/L)</b>	<b>YGWC-26S</b>	<b>12.01</b>	<b>10/2/2018</b>	<b>99</b>	<b>Yes</b>	<b>77</b>	<b>2.597</b>	<b>No</b>	<b>0.001075</b>	<b>Param Inter 1 of 2</b>
Sulfate (mg/L)	YGWC-27I	12.01	10/2/2018	6.1	No	77	2.597	No	0.001075	Param Inter 1 of 2
<b>Sulfate (mg/L)</b>	<b>YGWC-27S</b>	<b>12.01</b>	<b>10/2/2018</b>	<b>20.2</b>	<b>Yes</b>	<b>77</b>	<b>2.597</b>	<b>No</b>	<b>0.001075</b>	<b>Param Inter 1 of 2</b>
Sulfate (mg/L)	YGWC-28I	12.01	10/3/2018	8	No	77	2.597	No	0.001075	Param Inter 1 of 2
Sulfate (mg/L)	YGWC-28S	12.01	10/3/2018	2.1	No	77	2.597	No	0.001075	Param Inter 1 of 2
<b>Sulfate (mg/L)</b>	<b>YGWC-29I</b>	<b>12.01</b>	<b>10/2/2018</b>	<b>30.8</b>	<b>Yes</b>	<b>77</b>	<b>2.597</b>	<b>No</b>	<b>0.001075</b>	<b>Param Inter 1 of 2</b>

Exceeds Limit: YGWC-26I, YGWC-26S, YGWC-27I, YGWC-27S, YGWC-28I, YGWC-28S

Prediction Limit  
Interwell Non-parametric

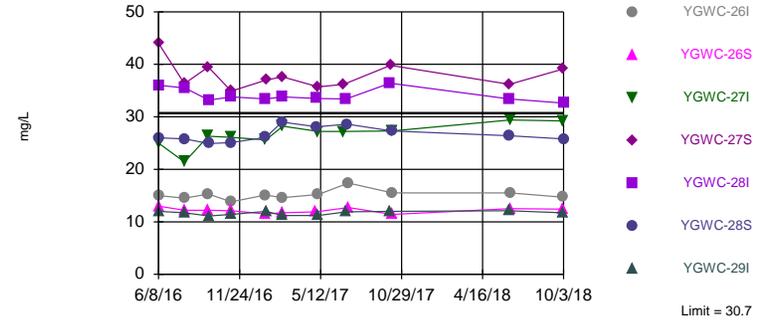


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 77 background values. 64.94% NDs. Annual per-constituent alpha = 0.004538. Individual comparison alpha = 0.0003248 (1 of 2). Comparing 7 points to limit.

Constituent: Boron Analysis Run 12/17/2018 11:28 AM View: Interwell PL  
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Exceeds Limit: YGWC-27S, YGWC-28I

Prediction Limit  
Interwell Non-parametric

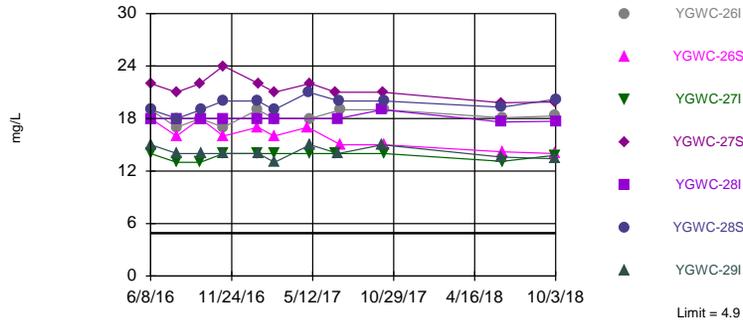


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 77 background values. Annual per-constituent alpha = 0.004538. Individual comparison alpha = 0.0003248 (1 of 2). Comparing 7 points to limit.

Constituent: Calcium Analysis Run 12/17/2018 11:28 AM View: Interwell PL  
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Exceeds Limit: YGWC-26I, YGWC-26S, YGWC-27I, YGWC-27S, YGWC-28I, YGWC-28S

Prediction Limit  
Interwell Non-parametric

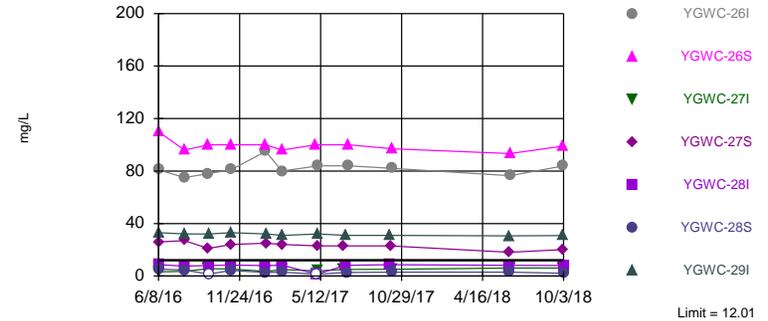


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 77 background values. Annual per-constituent alpha = 0.004538. Individual comparison alpha = 0.0003248 (1 of 2). Comparing 7 points to limit.

Constituent: Chloride Analysis Run 12/17/2018 11:28 AM View: Interwell PL  
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Exceeds Limit: YGWC-26I, YGWC-26S, YGWC-27I, YGWC-27S, YGWC-28I, YGWC-28S

Prediction Limit  
Interwell Parametric



Background Data Summary: Mean=6.217, Std. Dev.=3.052, n=77, 2.597% NDs. Normality test: Shapiro Francia @alpha = 0.01, calculated = 0.9748, critical = 0.957. Kappa = 1.899 (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 12/17/2018 11:28 AM View: Interwell PL  
Plant Yates Client: Southern Company Data: Yates Ash Pond 2





# Prediction Limit

Constituent: Boron (mg/L) Analysis Run 12/17/2018 11:29 AM View: Interwell PL  
 Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWC-26I	YGWC-29I	YGWC-28I	YGWC-28S	YGWA-2I (bg)
6/1/2016					
6/2/2016					
6/8/2016	0.97				
6/9/2016		0.88	2.2	2.3	
7/25/2016					
7/26/2016					
8/1/2016	0.932				
8/2/2016		0.872	2.22	2.21	
9/13/2016					
9/14/2016					<0.04
9/15/2016					
9/19/2016					
9/20/2016	1.04				
9/21/2016		0.853	2.65	2.54	
11/1/2016					
11/2/2016					
11/4/2016					<0.04
11/7/2016	0.852	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	0.972		1.88	2.04	
1/19/2017		0.803			
2/21/2017	0.972			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					
5/5/2017			3.01	3.41	
5/8/2017	1.05	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	0.855				
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	0.887				
6/5/2018					

# Prediction Limit

Constituent: Boron (mg/L) Analysis Run 12/17/2018 11:29 AM View: Interwell PL  
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

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	YGWC-26I	YGWC-29I	YGWC-28I	YGWC-28S	YGWA-2I (bg)
6/6/2018					
6/7/2018					<0.04
6/8/2018					
6/11/2018		0.9			
6/12/2018			2.8	2.9	
6/13/2018	0.86				
10/1/2018					<0.04
10/2/2018	0.93	0.81			
10/3/2018			2.3	2.4	





# Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 12/17/2018 11:29 AM View: Interwell PL  
 Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWC-26I	YGWC-29I	YGWC-28I	YGWC-28S	YGWA-2I (bg)
6/1/2016					
6/2/2016					
6/8/2016	15				
6/9/2016		12	36	26	
7/25/2016					
7/26/2016					
8/1/2016	14.5				
8/2/2016		11.7	35.5	25.8	
9/13/2016					
9/14/2016					23.5
9/15/2016					
9/19/2016					
9/20/2016	15.3				
9/21/2016		11.1	33.2	24.9	
11/1/2016					
11/2/2016					
11/4/2016					23.7
11/7/2016	13.8	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	15.1		33.4	26.1	
1/19/2017		12			
2/21/2017	14.6			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					
5/5/2017			33.5	28.1	
5/8/2017	15.2	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	17.4				
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	15.5				
6/5/2018					

# Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 12/17/2018 11:29 AM View: Interwell PL  
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

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	YGWC-26I	YGWC-29I	YGWC-28I	YGWC-28S	YGWA-2I (bg)
6/6/2018					
6/7/2018					25
6/8/2018					
6/11/2018		12.1			
6/12/2018			33.4	26.4	
6/13/2018	15.5				
10/1/2018					25
10/2/2018	14.7	11.7 (J)			
10/3/2018			32.6	25.8	





# Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 12/17/2018 11:29 AM View: Interwell PL  
 Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWC-26I	YGWC-29I	YGWC-28I	YGWC-28S	YGWA-2I (bg)
6/1/2016					
6/2/2016					
6/8/2016	19				
6/9/2016		15	18	19	
7/25/2016					
7/26/2016					
8/1/2016	17				
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	18	19	
11/1/2016					
11/2/2016					
11/4/2016					1.4
11/7/2016	17	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	19		18	20	
1/19/2017		14			
2/21/2017	18			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					
5/5/2017			19 (o)	21	
5/8/2017	18	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	19				
10/3/2017					1.2
10/4/2017					
10/5/2017		15	19		
10/6/2017					
10/9/2017				20	
10/10/2017	19				
6/5/2018					

# Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 12/17/2018 11:29 AM View: Interwell PL  
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

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	YGWC-26I	YGWC-29I	YGWC-28I	YGWC-28S	YGWA-2I (bg)
6/6/2018					
6/7/2018					1
6/8/2018					
6/11/2018		13.6			
6/12/2018			17.6	19.3	
6/13/2018	18.1				
10/1/2018					1.1
10/2/2018	18.3	13.4			
10/3/2018			17.7	20.2	





# Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 12/17/2018 11:29 AM View: Interwell PL  
 Plant Yates Client: Southern Company Data: Yates Ash Pond 2

	YGWC-26I	YGWC-29I	YGWC-28I	YGWC-28S	YGWA-2I (bg)
6/1/2016					
6/2/2016					
6/8/2016	81				
6/9/2016		33	8.7	5.2	
7/25/2016					
7/26/2016					
8/1/2016	75				
8/2/2016		32	7.5	4.5	
9/13/2016					
9/14/2016					9.4
9/15/2016					
9/19/2016					
9/20/2016	78				
9/21/2016		32	8	<1.5 (*)	
11/1/2016					
11/2/2016					
11/4/2016					13
11/7/2016	81	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	95		8	2.7	
1/19/2017		32			
2/21/2017	80			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					
5/5/2017			<1.5 (*)	<1.5 (*)	
5/8/2017	84	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	84				
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	82				
6/5/2018					

# Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 12/17/2018 11:29 AM View: Interwell PL  
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

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	YGWC-26I	YGWC-29I	YGWC-28I	YGWC-28S	YGWA-2I (bg)
6/6/2018					
6/7/2018					8.8
6/8/2018					
6/11/2018		30.6			
6/12/2018			8.2	2.9	
6/13/2018	76.5				
10/1/2018					9.1
10/2/2018	83.9	30.8			
10/3/2018			8	2.1	

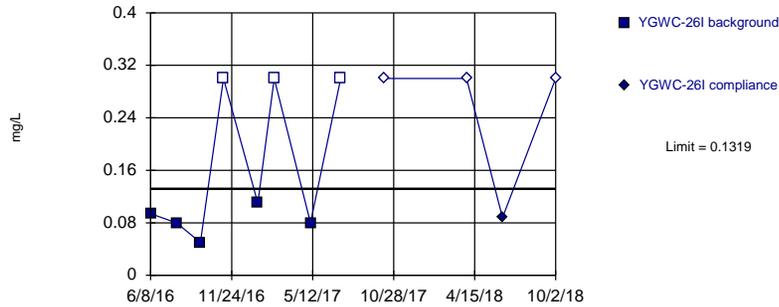
# Intrawell Prediction Limit

Plant Yates Client: Southern Company Data: Yates Ash Pond 2 Printed 12/17/2018, 11:37 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bq N	%NDs	Transform	Alpha	Method
Fluoride (mg/L)	YGWC-26I	0.1319	n/a	10/2/2018	0.3ND	No	8	37.5	sqrt(x)	0.001075	Param Intra 1 of 3
Fluoride (mg/L)	YGWC-26S	0.441	n/a	10/2/2018	0.3ND	No	8	50	No	0.001075	Param Intra 1 of 3
Fluoride (mg/L)	YGWC-27I	0.3	n/a	10/2/2018	0.3ND	No	8	62.5	n/a	0.005912	NP Intra (NDs) 1 of 3
Fluoride (mg/L)	YGWC-27S	0.3567	n/a	10/2/2018	0.3ND	No	8	12.5	No	0.001075	Param Intra 1 of 3
Fluoride (mg/L)	YGWC-28I	0.4123	n/a	10/3/2018	0.3ND	No	8	12.5	No	0.001075	Param Intra 1 of 3
Fluoride (mg/L)	YGWC-28S	0.4947	n/a	10/3/2018	0.31	No	8	0	No	0.001075	Param Intra 1 of 3
Fluoride (mg/L)	YGWC-29I	0.1062	n/a	10/2/2018	0.3ND	No	8	37.5	ln(x)	0.001075	Param Intra 1 of 3
pH (S.U.)	YGWC-26I	5.949	5.768	10/2/2018	5.81	No	8	0	No	0.0005373	Param Intra 1 of 3
<b>pH (S.U.)</b>	<b>YGWC-26S</b>	<b>5.406</b>	<b>5.089</b>	<b>10/2/2018</b>	<b>4.95</b>	<b>Yes</b>	<b>8</b>	<b>0</b>	<b>No</b>	<b>0.0005373</b>	<b>Param Intra 1 of 3</b>
<b>pH (S.U.)</b>	<b>YGWC-27I</b>	<b>6.415</b>	<b>6.15</b>	<b>10/2/2018</b>	<b>5.9</b>	<b>Yes</b>	<b>8</b>	<b>0</b>	<b>No</b>	<b>0.0005373</b>	<b>Param Intra 1 of 3</b>
<b>pH (S.U.)</b>	<b>YGWC-27S</b>	<b>6.331</b>	<b>6.052</b>	<b>10/2/2018</b>	<b>5.99</b>	<b>Yes</b>	<b>8</b>	<b>0</b>	<b>No</b>	<b>0.0005373</b>	<b>Param Intra 1 of 3</b>
<b>pH (S.U.)</b>	<b>YGWC-28I</b>	<b>6.498</b>	<b>6.264</b>	<b>10/3/2018</b>	<b>6.21</b>	<b>Yes</b>	<b>8</b>	<b>0</b>	<b>No</b>	<b>0.0005373</b>	<b>Param Intra 1 of 3</b>
<b>pH (S.U.)</b>	<b>YGWC-28S</b>	<b>6.514</b>	<b>6.236</b>	<b>10/3/2018</b>	<b>6.01</b>	<b>Yes</b>	<b>8</b>	<b>0</b>	<b>No</b>	<b>0.0005373</b>	<b>Param Intra 1 of 3</b>
pH (S.U.)	YGWC-29I	6.252	6.068	10/2/2018	6.17	No	8	0	No	0.0005373	Param Intra 1 of 3
Total Dissolved Solids (mg/L)	YGWC-26I	311.4	n/a	10/2/2018	227	No	8	0	No	0.001075	Param Intra 1 of 3
Total Dissolved Solids (mg/L)	YGWC-26S	308.1	n/a	10/2/2018	191	No	8	0	No	0.001075	Param Intra 1 of 3
Total Dissolved Solids (mg/L)	YGWC-27I	277.1	n/a	10/2/2018	227	No	8	0	No	0.001075	Param Intra 1 of 3
Total Dissolved Solids (mg/L)	YGWC-27S	295.1	n/a	10/2/2018	206	No	8	0	No	0.001075	Param Intra 1 of 3
Total Dissolved Solids (mg/L)	YGWC-28I	317.6	n/a	10/3/2018	232	No	8	0	No	0.001075	Param Intra 1 of 3
Total Dissolved Solids (mg/L)	YGWC-28S	422.5	n/a	10/3/2018	237	No	8	0	ln(x)	0.001075	Param Intra 1 of 3
Total Dissolved Solids (mg/L)	YGWC-29I	278.2	n/a	10/2/2018	154	No	8	0	sqrt(x)	0.001075	Param Intra 1 of 3

Within Limit

Prediction Limit  
Intrawell Parametric

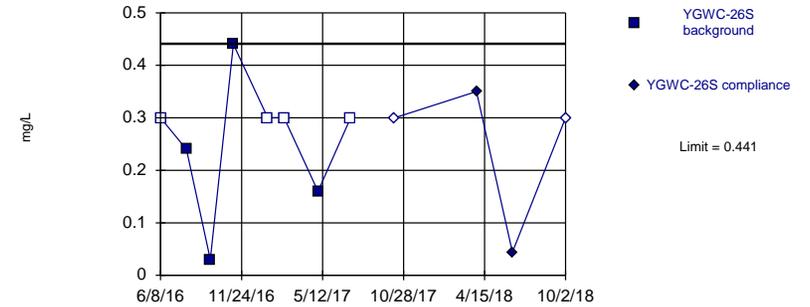


Background Data Summary (based on square root transformation) (after Kaplan-Meier Adjustment): Mean=0.2737, Std. Dev.=0.04369, n=8, 37.5% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7927, critical = 0.749. Kappa = 2.049 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: Fluoride Analysis Run 12/17/2018 11:35 AM View: Intrawell PL  
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Within Limit

Prediction Limit  
Intrawell Parametric

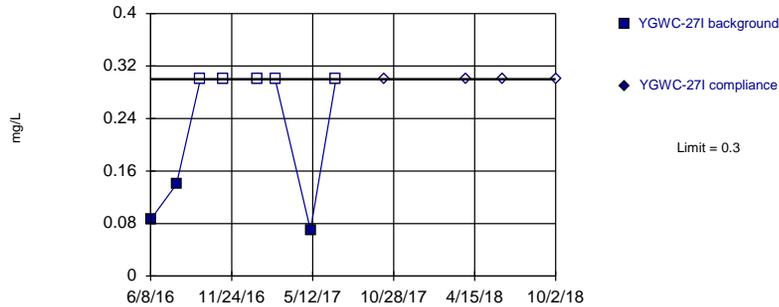


Background Data Summary (after Kaplan-Meier Adjustment): Mean=0.1804, Std. Dev.=0.1272, n=8, 50% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8986, critical = 0.749. Kappa = 2.049 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: Fluoride Analysis Run 12/17/2018 11:35 AM View: Intrawell PL  
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Within Limit

Prediction Limit  
Intrawell Non-parametric

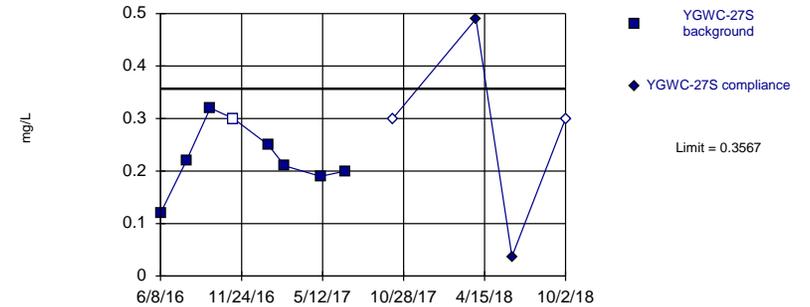


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 8 background values. 62.5% NDs. Well-constituent pair annual alpha = 0.01179. Individual comparison alpha = 0.005912 (1 of 3).

Constituent: Fluoride Analysis Run 12/17/2018 11:35 AM View: Intrawell PL  
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Within Limit

Prediction Limit  
Intrawell Parametric

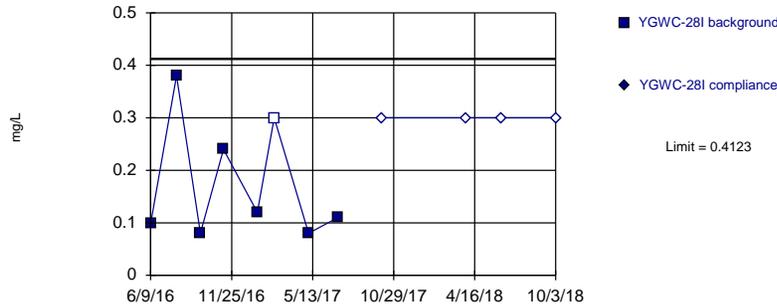


Background Data Summary: Mean=0.2263, Std. Dev.=0.06368, n=8, 12.5% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9604, critical = 0.749. Kappa = 2.049 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: Fluoride Analysis Run 12/17/2018 11:35 AM View: Intrawell PL  
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Within Limit

Prediction Limit  
Intrawell Parametric

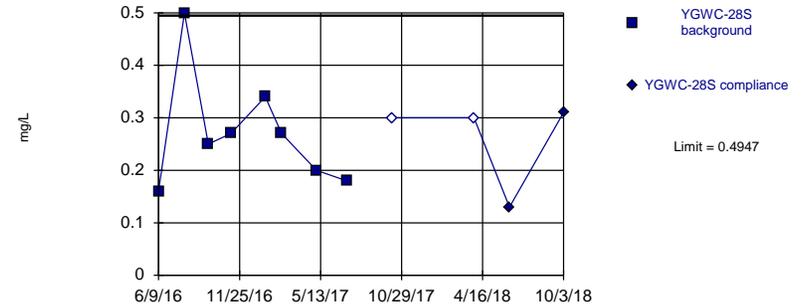


Background Data Summary: Mean=0.176, Std. Dev.=0.1153, n=8, 12.5% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8211, critical = 0.749. Kappa = 2.049 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: Fluoride Analysis Run 12/17/2018 11:35 AM View: Intrawell PL  
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Within Limit

Prediction Limit  
Intrawell Parametric

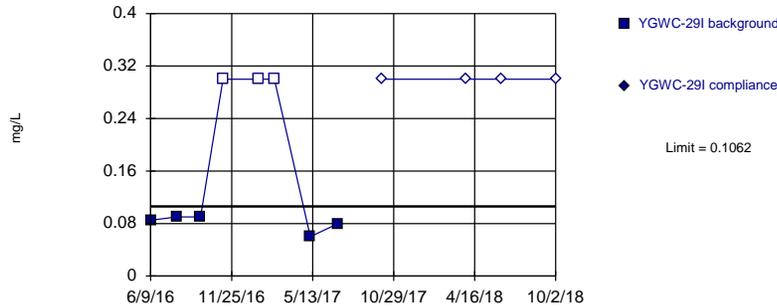


Background Data Summary: Mean=0.2713, Std. Dev.=0.1091, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8734, critical = 0.749. Kappa = 2.049 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: Fluoride Analysis Run 12/17/2018 11:35 AM View: Intrawell PL  
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Within Limit

Prediction Limit  
Intrawell Parametric

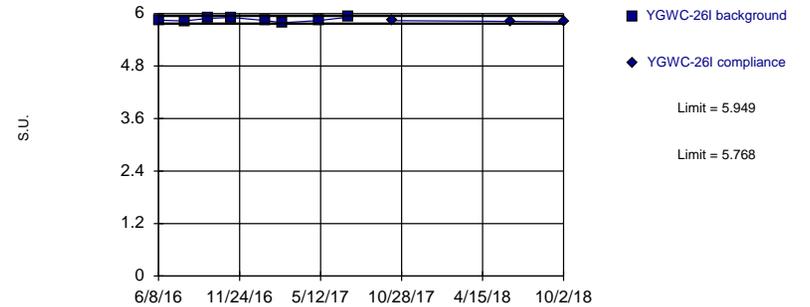


Background Data Summary (based on natural log transformation) (after Kaplan-Meier Adjustment): Mean=-2.563, Std. Dev.=0.1564, n=8, 37.5% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7685, critical = 0.749. Kappa = 2.049 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: Fluoride Analysis Run 12/17/2018 11:35 AM View: Intrawell PL  
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Within Limits

Prediction Limit  
Intrawell Parametric

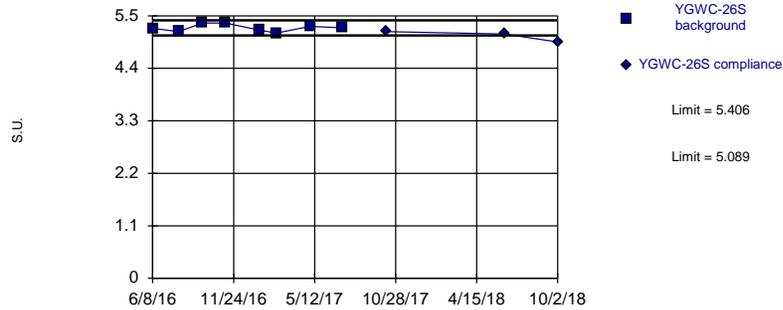


Background Data Summary: Mean=5.859, Std. Dev.=0.04422, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9373, critical = 0.749. Kappa = 2.049 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: pH Analysis Run 12/17/2018 11:35 AM View: Intrawell PL  
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Exceeds Limits

Prediction Limit  
Intrawell Parametric



Background Data Summary: Mean=5.248, Std. Dev.=0.07741, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9397, critical = 0.749. Kappa = 2.049 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: pH Analysis Run 12/17/2018 11:35 AM View: Intrawell PL  
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Exceeds Limits

Prediction Limit  
Intrawell Parametric

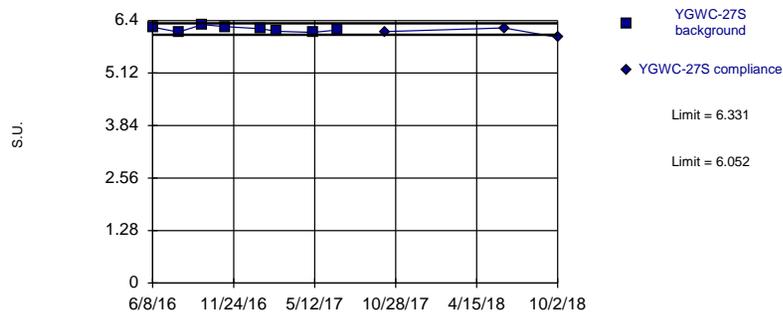


Background Data Summary: Mean=6.283, Std. Dev.=0.06475, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9228, critical = 0.749. Kappa = 2.049 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: pH Analysis Run 12/17/2018 11:35 AM View: Intrawell PL  
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Exceeds Limits

Prediction Limit  
Intrawell Parametric

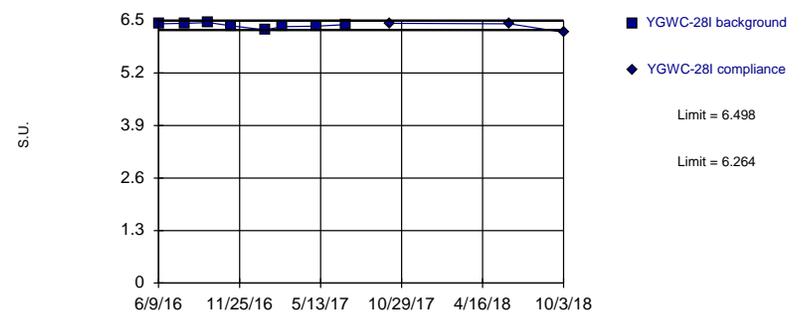


Background Data Summary: Mean=6.191, Std. Dev.=0.06813, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9452, critical = 0.749. Kappa = 2.049 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: pH Analysis Run 12/17/2018 11:35 AM View: Intrawell PL  
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Exceeds Limits

Prediction Limit  
Intrawell Parametric

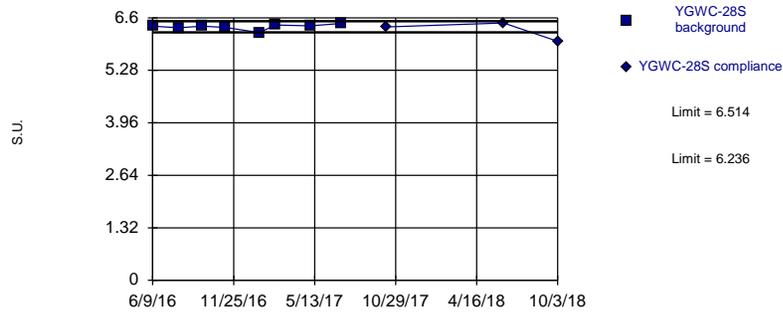


Background Data Summary: Mean=6.381, Std. Dev.=0.05718, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9363, critical = 0.749. Kappa = 2.049 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: pH Analysis Run 12/17/2018 11:35 AM View: Intrawell PL  
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Exceeds Limits

Prediction Limit  
Intrawell Parametric

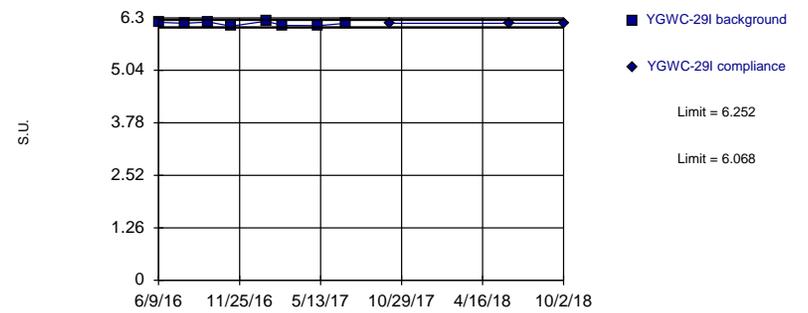


Background Data Summary: Mean=6.375, Std. Dev.=0.06782, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8798, critical = 0.749. Kappa = 2.049 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: pH Analysis Run 12/17/2018 11:35 AM View: Intrawell PL  
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Within Limits

Prediction Limit  
Intrawell Parametric

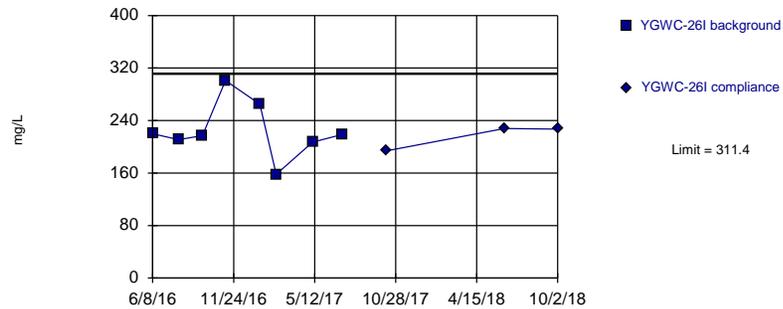


Background Data Summary: Mean=6.16, Std. Dev.=0.04472, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9169, critical = 0.749. Kappa = 2.049 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: pH Analysis Run 12/17/2018 11:35 AM View: Intrawell PL  
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Within Limit

Prediction Limit  
Intrawell Parametric

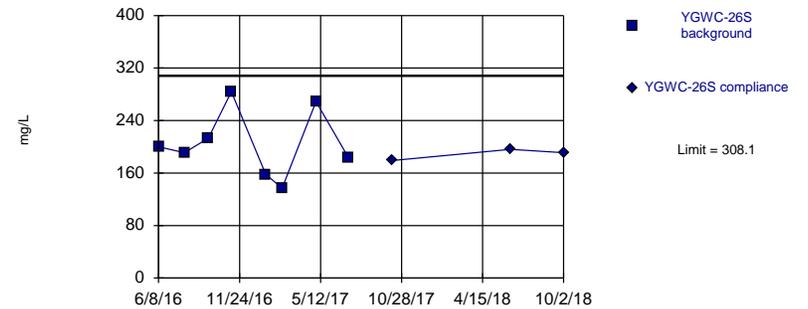


Background Data Summary: Mean=224.8, Std. Dev.=42.27, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.908, critical = 0.749. Kappa = 2.049 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: Total Dissolved Solids Analysis Run 12/17/2018 11:35 AM View: Intrawell PL  
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Within Limit

Prediction Limit  
Intrawell Parametric

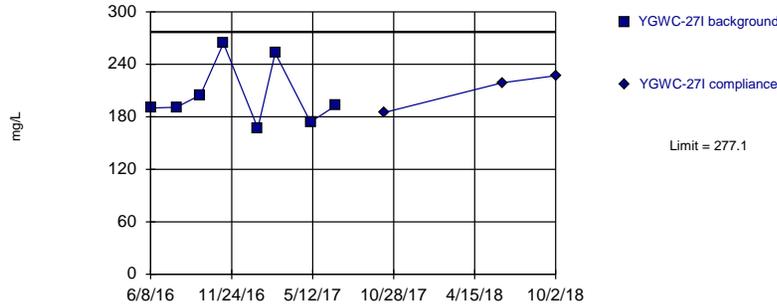


Background Data Summary: Mean=204.4, Std. Dev.=50.62, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9396, critical = 0.749. Kappa = 2.049 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: Total Dissolved Solids Analysis Run 12/17/2018 11:35 AM View: Intrawell PL  
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Within Limit

Prediction Limit  
Intrawell Parametric

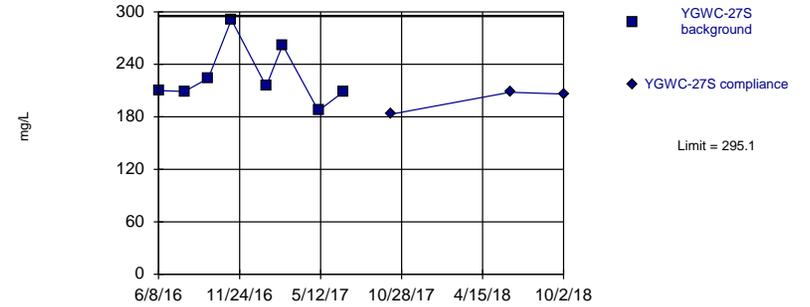


Background Data Summary: Mean=204.6, Std. Dev.=35.36, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8533, critical = 0.749. Kappa = 2.049 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: Total Dissolved Solids Analysis Run 12/17/2018 11:35 AM View: Intrawell PL  
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Within Limit

Prediction Limit  
Intrawell Parametric

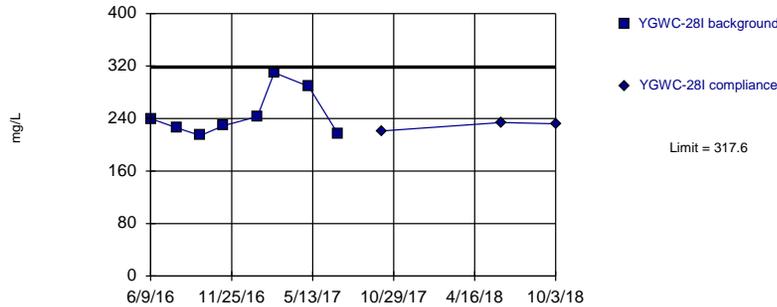


Background Data Summary: Mean=225.9, Std. Dev.=33.81, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8529, critical = 0.749. Kappa = 2.049 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: Total Dissolved Solids Analysis Run 12/17/2018 11:35 AM View: Intrawell PL  
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Within Limit

Prediction Limit  
Intrawell Parametric

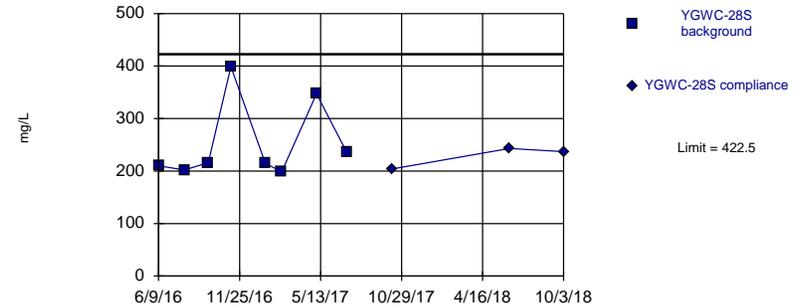


Background Data Summary: Mean=246, Std. Dev.=34.94, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8349, critical = 0.749. Kappa = 2.049 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: Total Dissolved Solids Analysis Run 12/17/2018 11:35 AM View: Intrawell PL  
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Within Limit

Prediction Limit  
Intrawell Parametric

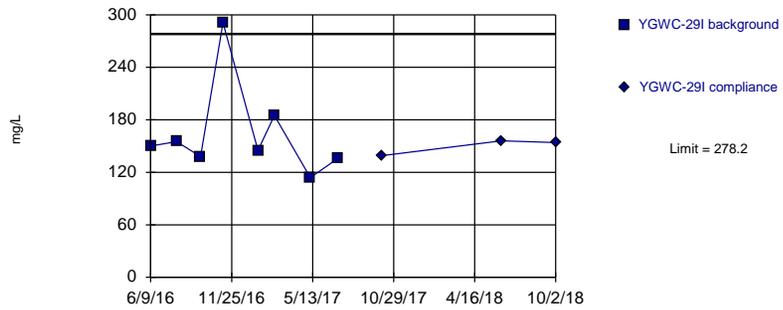


Background Data Summary (based on natural log transformation): Mean=5.499, Std. Dev.=0.2672, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7591, critical = 0.749. Kappa = 2.049 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: Total Dissolved Solids Analysis Run 12/17/2018 11:35 AM View: Intrawell PL  
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

Within Limit

### Prediction Limit Intrawell Parametric



Background Data Summary (based on square root transformation): Mean=12.69, Std. Dev.=1.949, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7993, critical = 0.749. Kappa = 2.049 (c=7, w=7, 1 of 3, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: Total Dissolved Solids Analysis Run 12/17/2018 11:35 AM View: Intrawell PL  
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

# Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 12/17/2018 11:37 AM View: IntraWell PL

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

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	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

# Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 12/17/2018 11:37 AM View: IntraWell PL

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

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	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

# Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 12/17/2018 11:37 AM View: IntraWell PL

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

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	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

# Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 12/17/2018 11:37 AM View: IntraWell PL

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

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	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

# Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 12/17/2018 11:37 AM View: IntraWell PL

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

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	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

# Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 12/17/2018 11:37 AM View: IntraWell PL

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

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	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

# Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 12/17/2018 11:37 AM View: IntraWell PL

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

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	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

# Prediction Limit

Constituent: pH (S.U.) Analysis Run 12/17/2018 11:37 AM View: IntraWell PL

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

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	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
6/13/2018		5.82
10/2/2018		5.81

# Prediction Limit

Constituent: pH (S.U.) Analysis Run 12/17/2018 11:37 AM View: IntraWell PL

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

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	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
6/13/2018		5.12
10/2/2018		4.95

# Prediction Limit

Constituent: pH (S.U.) Analysis Run 12/17/2018 11:37 AM View: IntraWell PL

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

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	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
6/13/2018		6.28
10/2/2018		5.9

# Prediction Limit

Constituent: pH (S.U.) Analysis Run 12/17/2018 11:37 AM View: IntraWell PL

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

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	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
6/12/2018		6.22
10/2/2018		5.99

# Prediction Limit

Constituent: pH (S.U.) Analysis Run 12/17/2018 11:37 AM View: IntraWell PL

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

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	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
6/12/2018		6.42
10/3/2018		6.21

# Prediction Limit

Constituent: pH (S.U.) Analysis Run 12/17/2018 11:37 AM View: IntraWell PL

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

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	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
6/12/2018		6.47
10/3/2018		6.01

# Prediction Limit

Constituent: pH (S.U.) Analysis Run 12/17/2018 11:37 AM View: IntraWell PL

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

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	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
6/11/2018		6.17
10/2/2018		6.17

# Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 12/17/2018 11:37 AM View: Intrawell PL  
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

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	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

# Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 12/17/2018 11:37 AM View: IntraWell PL  
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

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	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

# Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 12/17/2018 11:37 AM View: Intrawell PL  
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

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	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

# Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 12/17/2018 11:37 AM View: Intrawell PL  
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

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	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

# Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 12/17/2018 11:37 AM View: Intrawell PL  
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

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	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

# Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 12/17/2018 11:37 AM View: Intrawell PL  
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

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	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

# Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 12/17/2018 11:37 AM View: Intrawell PL  
Plant Yates Client: Southern Company Data: Yates Ash Pond 2

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	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

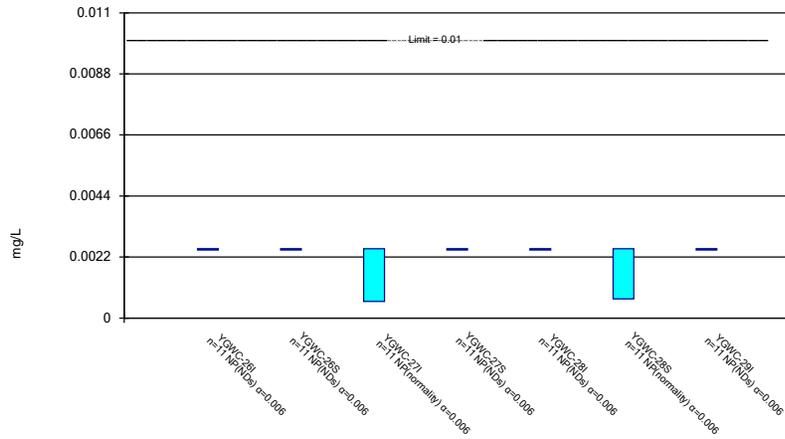
# Confidence Interval

Plant Yates    Client: Southern Company    Data: Yates Ash Pond 2    Printed 12/17/2018, 3:37 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	Transform	Alpha	Method
Arsenic (mg/L)	YGWC-26I	0.0025	0.0025	0.01	No	11	0.0025	0	100	No	0.006	NP (NDs)
Arsenic (mg/L)	YGWC-26S	0.0025	0.0025	0.01	No	11	0.0025	0	100	No	0.006	NP (NDs)
Arsenic (mg/L)	YGWC-27I	0.0025	0.0006	0.01	No	11	0.001882	0.0008681	63.64	No	0.006	NP (normality)
Arsenic (mg/L)	YGWC-27S	0.0025	0.0025	0.01	No	11	0.0025	0	100	No	0.006	NP (NDs)
Arsenic (mg/L)	YGWC-28I	0.0025	0.0025	0.01	No	11	0.0025	0	100	No	0.006	NP (NDs)
Arsenic (mg/L)	YGWC-28S	0.0025	0.00069	0.01	No	11	0.001707	0.0009132	54.55	No	0.006	NP (normality)
Arsenic (mg/L)	YGWC-29I	0.0025	0.0025	0.01	No	11	0.0025	0	100	No	0.006	NP (NDs)
Barium (mg/L)	YGWC-26I	0.06828	0.0641	2	No	11	0.06619	0.002507	0	No	0.01	Param.
Barium (mg/L)	YGWC-26S	0.02954	0.02663	2	No	11	0.02808	0.001744	0	No	0.01	Param.
Barium (mg/L)	YGWC-27I	0.07544	0.06282	2	No	11	0.06913	0.00757	0	No	0.01	Param.
Barium (mg/L)	YGWC-27S	0.1105	0.09741	2	No	11	0.1039	0.007837	0	No	0.01	Param.
Barium (mg/L)	YGWC-28I	0.09278	0.0856	2	No	11	0.08919	0.004311	0	No	0.01	Param.
Barium (mg/L)	YGWC-28S	0.2215	0.2081	2	No	11	0.2148	0.008048	0	No	0.01	Param.
Barium (mg/L)	YGWC-29I	0.07723	0.06508	2	No	11	0.07115	0.007288	0	No	0.01	Param.
Cobalt (mg/L)	YGWC-26I	0.005	0.005	0.035	No	11	0.005	0	100	No	0.006	NP (NDs)
Cobalt (mg/L)	YGWC-26S	0.003305	0.001901	0.035	No	11	0.002618	0.0009304	9.091	sqrt(x)	0.01	Param.
Cobalt (mg/L)	YGWC-27I	0.078	0.0014	0.035	No	11	0.02155	0.03454	0	No	0.006	NP (normality)
Cobalt (mg/L)	YGWC-27S	0.0026	0.0022	0.035	No	11	0.002645	0.0007917	9.091	No	0.006	NP (normality)
Cobalt (mg/L)	YGWC-28I	0.005	0.00042	0.035	No	11	0.004584	0.001381	90.91	No	0.006	NP (NDs)
Cobalt (mg/L)	YGWC-28S	0.0013	0.0008	0.035	No	11	0.001395	0.001207	9.091	No	0.006	NP (normality)
Cobalt (mg/L)	YGWC-29I	0.005	0.0003	0.035	No	11	0.003375	0.002257	63.64	No	0.006	NP (normality)
Combined Radium 226 + 228 (pCi/L)	YGWC-26I	1.599	0.3571	5	No	11	1.238	1.837	9.091	ln(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	YGWC-26S	0.8684	0.5349	5	No	11	0.7047	0.2124	9.091	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	YGWC-27I	4.121	2.401	5	No	11	3.261	1.032	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	YGWC-27S	1.03	0.5189	5	No	11	0.7745	0.3066	9.091	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	YGWC-28I	0.7756	0.3102	5	No	11	0.5429	0.2792	9.091	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	YGWC-28S	0.9307	0.375	5	No	11	0.6528	0.3334	9.091	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	YGWC-29I	1.288	0.5612	5	No	11	0.9245	0.4361	9.091	No	0.01	Param.
Fluoride (mg/L)	YGWC-26I	0.15	0.08	4	No	12	0.1168	0.03715	50	No	0.01	NP (normality)
Fluoride (mg/L)	YGWC-26S	0.35	0.044	4	No	12	0.1803	0.1156	50	No	0.01	NP (Cohens/xfrm)
Fluoride (mg/L)	YGWC-27I	0.15	0.086	4	No	12	0.1372	0.02799	75	No	0.01	NP (normality)
Fluoride (mg/L)	YGWC-27S	0.3787	0.161	4	No	12	0.2073	0.1134	25	No	0.01	Param.
Fluoride (mg/L)	YGWC-28I	0.24	0.08	4	No	12	0.1548	0.08297	41.67	No	0.01	NP (Cohens/xfrm)
Fluoride (mg/L)	YGWC-28S	0.3259	0.1591	4	No	12	0.2425	0.1063	16.67	No	0.01	Param.
Fluoride (mg/L)	YGWC-29I	0.15	0.08	4	No	12	0.1213	0.03631	58.33	No	0.01	NP (normality)
Lithium (mg/L)	YGWC-26I	0.006954	0.006265	0.04	No	11	0.006609	0.0004134	0	No	0.01	Param.
Lithium (mg/L)	YGWC-26S	0.025	0.025	0.04	No	11	0.025	0	100	No	0.006	NP (NDs)
Lithium (mg/L)	YGWC-27I	0.01182	0.008507	0.04	No	11	0.01016	0.001988	0	No	0.01	Param.
Lithium (mg/L)	YGWC-27S	0.025	0.025	0.04	No	11	0.025	0	100	No	0.006	NP (NDs)
Lithium (mg/L)	YGWC-28I	0.00725	0.00675	0.04	No	11	0.007	0.0003	0	No	0.01	Param.
Lithium (mg/L)	YGWC-28S	0.025	0.025	0.04	No	10	0.025	0	100	No	0.011	NP (NDs)
Lithium (mg/L)	YGWC-29I	0.007112	0.005597	0.04	No	11	0.006355	0.0009092	0	No	0.01	Param.
Molybdenum (mg/L)	YGWC-26I	0.005	0.005	0.1	No	11	0.005	0	100	No	0.006	NP (NDs)
Molybdenum (mg/L)	YGWC-26S	0.005	0.005	0.1	No	11	0.005	0	100	No	0.006	NP (NDs)
Molybdenum (mg/L)	YGWC-27I	0.005	0.0011	0.1	No	11	0.004	0.001722	72.73	No	0.006	NP (normality)
Molybdenum (mg/L)	YGWC-27S	0.005	0.005	0.1	No	11	0.005	0	100	No	0.006	NP (NDs)
Molybdenum (mg/L)	YGWC-28I	0.005	0.0011	0.1	No	11	0.003664	0.001856	63.64	No	0.006	NP (normality)
Molybdenum (mg/L)	YGWC-28S	0.005	0.0006	0.1	No	11	0.004209	0.00176	81.82	No	0.006	NP (NDs)
Molybdenum (mg/L)	YGWC-29I	0.005	0.005	0.1	No	11	0.005	0	100	No	0.006	NP (NDs)

### Non-Parametric Confidence Interval

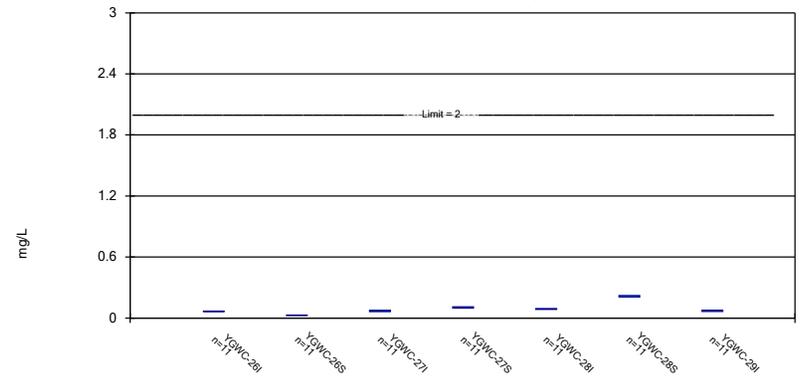
Compliance Limit is not exceeded.



Constituent: Arsenic Analysis Run 12/17/2018 3:36 PM View: Confidence Interval  
 Plant Yates Client: Southern Company Data: Yates Ash Pond 2

### Parametric Confidence Interval

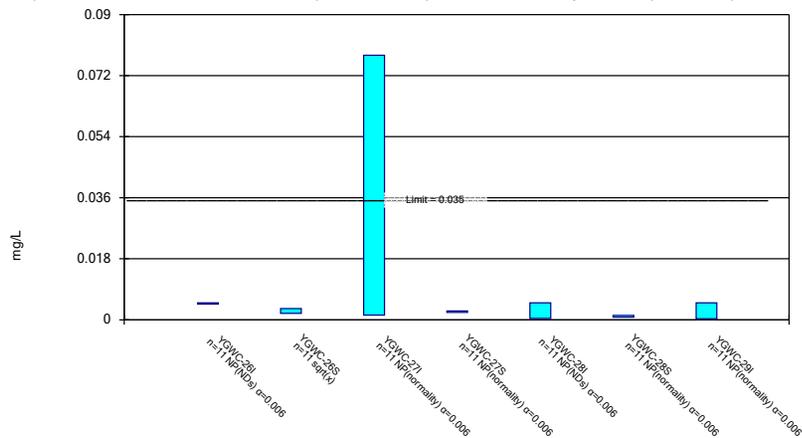
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Constituent: Barium Analysis Run 12/17/2018 3:36 PM View: Confidence Interval  
 Plant Yates Client: Southern Company Data: Yates Ash Pond 2

### Parametric and Non-Parametric (NP) Confidence Interval

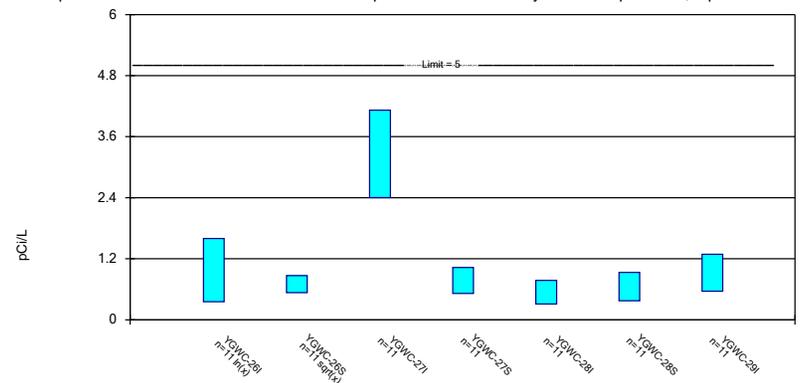
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Constituent: Cobalt Analysis Run 12/17/2018 3:36 PM View: Confidence Interval  
 Plant Yates Client: Southern Company Data: Yates Ash Pond 2

### Parametric Confidence Interval

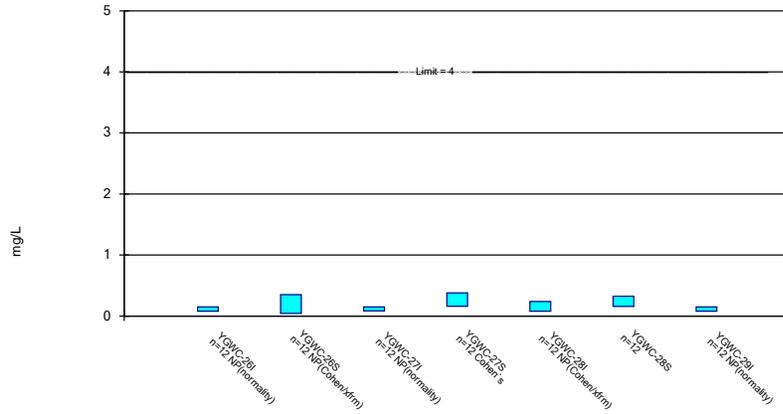
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Constituent: Combined Radium 226 + 228 Analysis Run 12/17/2018 3:36 PM View: Confidence Interval  
 Plant Yates Client: Southern Company Data: Yates Ash Pond 2

### Parametric and Non-Parametric (NP) Confidence Interval

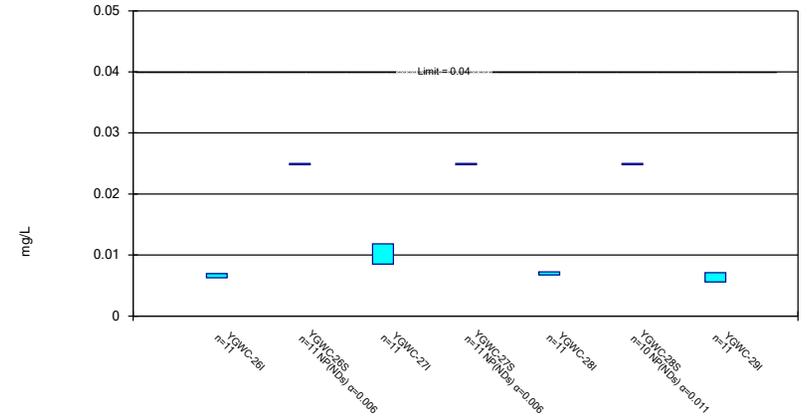
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Fluoride Analysis Run 12/17/2018 3:36 PM View: Confidence Interval  
 Plant Yates Client: Southern Company Data: Yates Ash Pond 2

### Parametric and Non-Parametric (NP) Confidence Interval

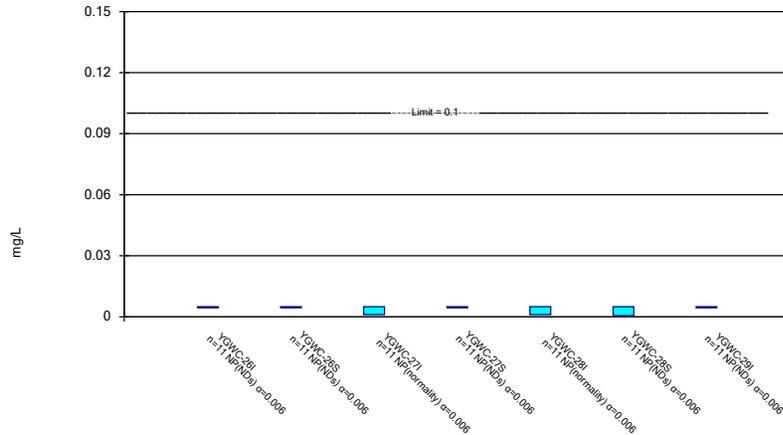
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Lithium Analysis Run 12/17/2018 3:36 PM View: Confidence Interval  
 Plant Yates Client: Southern Company Data: Yates Ash Pond 2

### Non-Parametric Confidence Interval

Compliance Limit is not exceeded.



Constituent: Molybdenum Analysis Run 12/17/2018 3:36 PM View: Confidence Interval  
 Plant Yates Client: Southern Company Data: Yates Ash Pond 2

# Confidence Interval

Constituent: Arsenic (mg/L) Analysis Run 12/17/2018 3:37 PM View: Confidence Interval

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	<0.005	<0.005	0.0011 (J)	<0.005			
6/9/2016					<0.005	0.00094 (J)	<0.005
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)	
<b>Mean</b>	0.0025	0.0025	0.001882	0.0025	0.0025	0.001707	0.0025
<b>Std. Dev.</b>	0	0	0.0008681	0	0	0.0009132	0
<b>Upper Lim.</b>	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025
<b>Lower Lim.</b>	0.0025	0.0025	0.0006	0.0025	0.0025	0.00069	0.0025

# Confidence Interval

Constituent: Barium (mg/L) Analysis Run 12/17/2018 3:37 PM View: Confidence Interval

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	
<b>Mean</b>	0.06619	0.02808	0.06913	0.1039	0.08919	0.2148	0.07115
<b>Std. Dev.</b>	0.002507	0.001744	0.00757	0.007837	0.004311	0.008048	0.007288
<b>Upper Lim.</b>	0.06828	0.02954	0.07544	0.1105	0.09278	0.2215	0.07723
<b>Lower Lim.</b>	0.0641	0.02663	0.06282	0.09741	0.0856	0.2081	0.06508

# Confidence Interval

Constituent: Cobalt (mg/L) Analysis Run 12/17/2018 3:37 PM View: Confidence Interval

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	<0.01	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)	
<b>Mean</b>	0.005	0.002618	0.02155	0.002645	0.004584	0.001395	0.003375
<b>Std. Dev.</b>	0	0.0009304	0.03454	0.0007917	0.001381	0.001207	0.002257
<b>Upper Lim.</b>	0.005	0.003305	0.078	0.0026	0.005	0.0013	0.005
<b>Lower Lim.</b>	0.005	0.001901	0.0014	0.0022	0.00042	0.0008	0.0003

# Confidence Interval

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 12/17/2018 3:37 PM View: Confidence Interval

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	<1.33	<1.33	3.44		<1.33	<1.33	
1/19/2017				<1.33			<1.33
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)	
<b>Mean</b>	1.238	0.7047	3.261	0.7745	0.5429	0.6528	0.9245
<b>Std. Dev.</b>	1.837	0.2124	1.032	0.3066	0.2792	0.3334	0.4361
<b>Upper Lim.</b>	1.599	0.8684	4.121	1.03	0.7756	0.9307	1.288
<b>Lower Lim.</b>	0.3571	0.5349	2.401	0.5189	0.3102	0.375	0.5612

# Confidence Interval

Constituent: Fluoride (mg/L) Analysis Run 12/17/2018 3:37 PM View: Confidence Interval

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)	<0.3	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	
Mean	0.1168	0.1803	0.1372	0.2073	0.1548	0.2425	0.1213
Std. Dev.	0.03715	0.1156	0.02799	0.1134	0.08297	0.1063	0.03631
Upper Lim.	0.15	0.35	0.15	0.3787	0.24	0.3259	0.15
Lower Lim.	0.08	0.044	0.086	0.161	0.08	0.1591	0.08

# Confidence Interval

Constituent: Lithium (mg/L) Analysis Run 12/17/2018 3:37 PM View: Confidence Interval

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	<0.05	0.0067	<0.05			
6/9/2016					0.0073	<0.05	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)	
<b>Mean</b>	0.006609	0.025	0.01016	0.025	0.007	0.025	0.006355
<b>Std. Dev.</b>	0.0004134	0	0.001988	0	0.0003	0	0.0009092
<b>Upper Lim.</b>	0.006954	0.025	0.01182	0.025	0.00725	0.025	0.007112
<b>Lower Lim.</b>	0.006265	0.025	0.008507	0.025	0.00675	0.025	0.005597

# Confidence Interval

Constituent: Molybdenum (mg/L) Analysis Run 12/17/2018 3:37 PM View: Confidence Interval

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	<0.01	<0.01	0.0011 (J)	<0.01			
6/9/2016					0.0011 (J)	<0.01	<0.01
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	
<b>Mean</b>	0.005	0.005	0.004	0.005	0.003664	0.004209	0.005
<b>Std. Dev.</b>	0	0	0.001722	0	0.001856	0.00176	0
<b>Upper Lim.</b>	0.005	0.005	0.005	0.005	0.005	0.005	0.005
<b>Lower Lim.</b>	0.005	0.005	0.0011	0.005	0.0011	0.0006	0.005

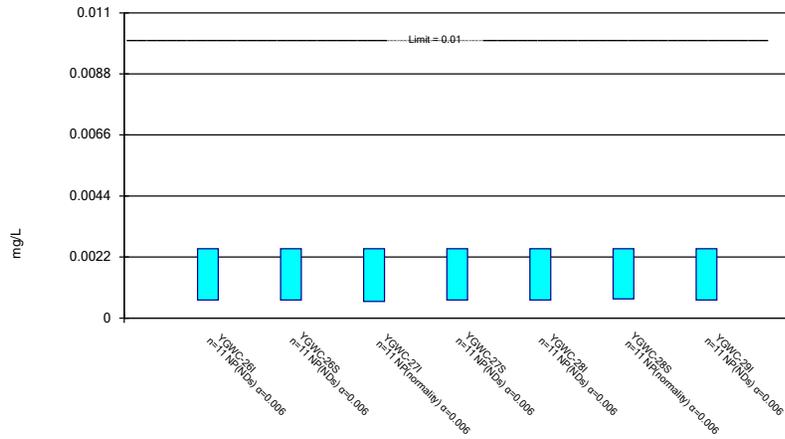
# Confidence Interval

Plant Yates    Client: Southern Company    Data: Yates Ash Pond 2    Printed 1/23/2019, 3:16 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Compliance</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Arsenic (mg/L)	YGWC-26I	0.0025	0.00065	0.01	No	11	100	No	0.006	NP (NDs)
Arsenic (mg/L)	YGWC-26S	0.0025	0.00065	0.01	No	11	100	No	0.006	NP (NDs)
Arsenic (mg/L)	YGWC-27I	0.0025	0.0006	0.01	No	11	63.64	No	0.006	NP (normality)
Arsenic (mg/L)	YGWC-27S	0.0025	0.00065	0.01	No	11	100	No	0.006	NP (NDs)
Arsenic (mg/L)	YGWC-28I	0.0025	0.00065	0.01	No	11	100	No	0.006	NP (NDs)
Arsenic (mg/L)	YGWC-28S	0.0025	0.00069	0.01	No	11	54.55	No	0.006	NP (normality)
Arsenic (mg/L)	YGWC-29I	0.0025	0.00065	0.01	No	11	100	No	0.006	NP (NDs)
Barium (mg/L)	YGWC-26I	0.06828	0.0641	2	No	11	0	No	0.01	Param.
Barium (mg/L)	YGWC-26S	0.02954	0.02663	2	No	11	0	No	0.01	Param.
Barium (mg/L)	YGWC-27I	0.07544	0.06282	2	No	11	0	No	0.01	Param.
Barium (mg/L)	YGWC-27S	0.1105	0.09741	2	No	11	0	No	0.01	Param.
Barium (mg/L)	YGWC-28I	0.09278	0.0856	2	No	11	0	No	0.01	Param.
Barium (mg/L)	YGWC-28S	0.2215	0.2081	2	No	11	0	No	0.01	Param.
Barium (mg/L)	YGWC-29I	0.07723	0.06508	2	No	11	0	No	0.01	Param.
Cobalt (mg/L)	YGWC-26I	0.005	0.00125	0.035	No	11	100	No	0.006	NP (NDs)
Cobalt (mg/L)	YGWC-26S	0.003305	0.001901	0.035	No	11	9.091	sqrt(x)	0.01	Param.
Cobalt (mg/L)	YGWC-27I	0.078	0.0014	0.035	No	11	0	No	0.006	NP (normality)
Cobalt (mg/L)	YGWC-27S	0.0026	0.0022	0.035	No	11	9.091	No	0.006	NP (normality)
Cobalt (mg/L)	YGWC-28I	0.005	0.00042	0.035	No	11	90.91	No	0.006	NP (NDs)
Cobalt (mg/L)	YGWC-28S	0.0013	0.0008	0.035	No	11	9.091	No	0.006	NP (normality)
Cobalt (mg/L)	YGWC-29I	0.005	0.0003	0.035	No	11	63.64	No	0.006	NP (normality)
Combined Radium 226 + 228 (pCi/L)	YGWC-26I	1.604	0.3587	5	No	11	9.091	ln(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	YGWC-26S	0.8684	0.5349	5	No	11	9.091	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	YGWC-27I	4.121	2.401	5	No	11	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	YGWC-27S	1.03	0.5189	5	No	11	9.091	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	YGWC-28I	0.7762	0.3105	5	No	11	9.091	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	YGWC-28S	0.9362	0.3795	5	No	11	9.091	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	YGWC-29I	1.292	0.5725	5	No	11	9.091	No	0.01	Param.
Fluoride (mg/L)	YGWC-26I	0.15	0.08	4	No	12	50	No	0.01	NP (normality)
Fluoride (mg/L)	YGWC-26S	0.35	0.044	4	No	12	50	No	0.01	NP (Cohens/xfrm)
Fluoride (mg/L)	YGWC-27I	0.15	0.086	4	No	12	75	No	0.01	NP (normality)
Fluoride (mg/L)	YGWC-27S	0.3787	0.161	4	No	12	25	No	0.01	Param.
Fluoride (mg/L)	YGWC-28I	0.24	0.08	4	No	12	41.67	No	0.01	NP (Cohens/xfrm)
Fluoride (mg/L)	YGWC-28S	0.3259	0.1591	4	No	12	16.67	No	0.01	Param.
Fluoride (mg/L)	YGWC-29I	0.15	0.08	4	No	12	58.33	No	0.01	NP (normality)
Lithium (mg/L)	YGWC-26I	0.006954	0.006265	0.025	No	11	0	No	0.01	Param.
Lithium (mg/L)	YGWC-26S	0.025	0.0025	0.025	No	11	100	No	0.006	NP (NDs)
Lithium (mg/L)	YGWC-27I	0.01182	0.008507	0.025	No	11	0	No	0.01	Param.
Lithium (mg/L)	YGWC-27S	0.025	0.0025	0.025	No	11	100	No	0.006	NP (NDs)
Lithium (mg/L)	YGWC-28I	0.00725	0.00675	0.025	No	11	0	No	0.01	Param.
Lithium (mg/L)	YGWC-28S	0.025	0.0025	0.025	No	10	100	No	0.011	NP (NDs)
Lithium (mg/L)	YGWC-29I	0.007112	0.005597	0.025	No	11	0	No	0.01	Param.
Molybdenum (mg/L)	YGWC-26I	0.005	0.005	0.014	No	11	100	No	0.006	NP (NDs)
Molybdenum (mg/L)	YGWC-26S	0.005	0.005	0.014	No	11	100	No	0.006	NP (NDs)
Molybdenum (mg/L)	YGWC-27I	0.005	0.0011	0.014	No	11	72.73	No	0.006	NP (normality)
Molybdenum (mg/L)	YGWC-27S	0.005	0.005	0.014	No	11	100	No	0.006	NP (NDs)
Molybdenum (mg/L)	YGWC-28I	0.005	0.0011	0.014	No	11	63.64	No	0.006	NP (normality)
Molybdenum (mg/L)	YGWC-28S	0.005	0.0006	0.014	No	11	81.82	No	0.006	NP (NDs)
Molybdenum (mg/L)	YGWC-29I	0.005	0.005	0.014	No	11	100	No	0.006	NP (NDs)

### Non-Parametric Confidence Interval

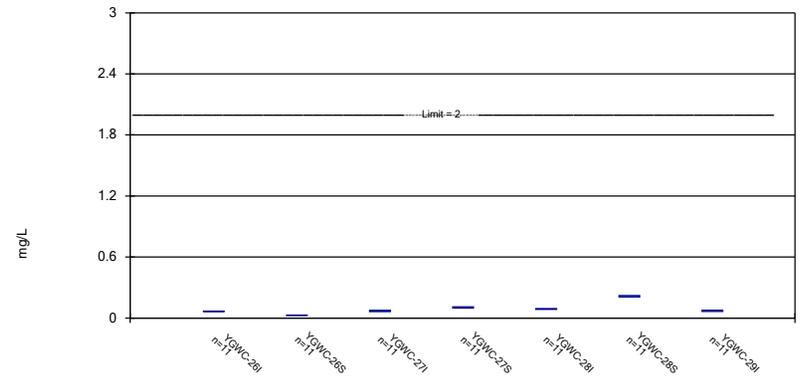
Compliance Limit is not exceeded.



Constituent: Arsenic Analysis Run 1/23/2019 3:15 PM View: Confidence Interval  
 Plant Yates Client: Southern Company Data: Yates Ash Pond 2

### Parametric Confidence Interval

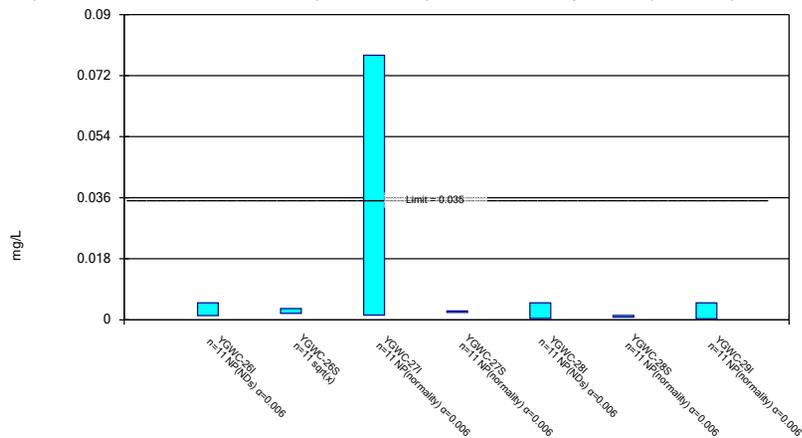
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Barium Analysis Run 1/23/2019 3:15 PM View: Confidence Interval  
 Plant Yates Client: Southern Company Data: Yates Ash Pond 2

### Parametric and Non-Parametric (NP) Confidence Interval

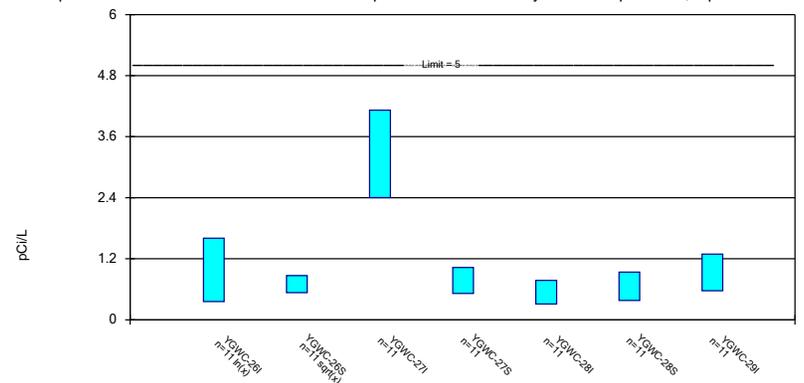
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Cobalt Analysis Run 1/23/2019 3:15 PM View: Confidence Interval  
 Plant Yates Client: Southern Company Data: Yates Ash Pond 2

### Parametric Confidence Interval

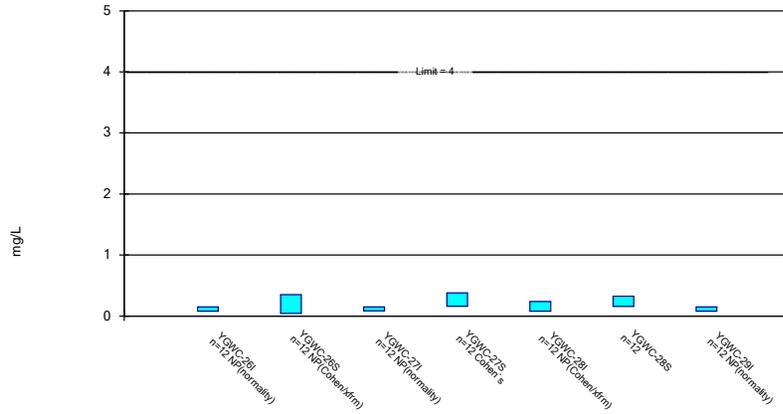
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Combined Radium 226 + 228 Analysis Run 1/23/2019 3:15 PM View: Confidence Interval  
 Plant Yates Client: Southern Company Data: Yates Ash Pond 2

### Parametric and Non-Parametric (NP) Confidence Interval

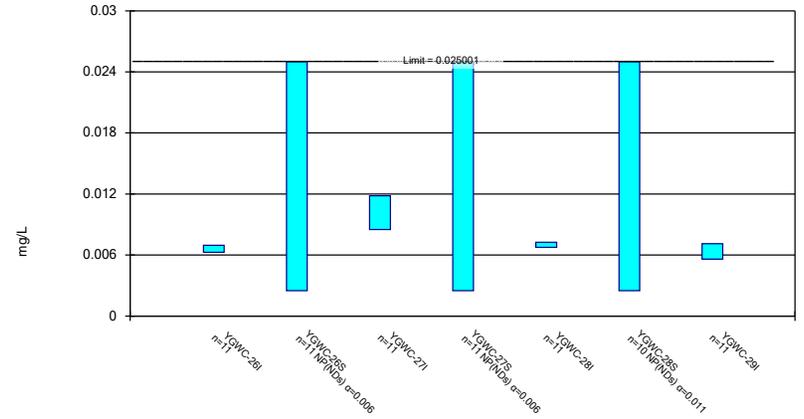
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Fluoride Analysis Run 1/23/2019 3:15 PM View: Confidence Interval  
 Plant Yates Client: Southern Company Data: Yates Ash Pond 2

### Parametric and Non-Parametric (NP) Confidence Interval

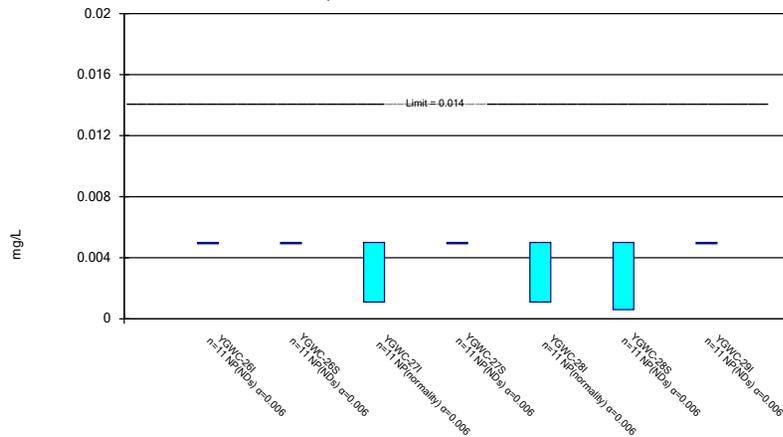
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Lithium Analysis Run 1/23/2019 3:15 PM View: Confidence Interval  
 Plant Yates Client: Southern Company Data: Yates Ash Pond 2

### Non-Parametric Confidence Interval

Compliance Limit is not exceeded.



Constituent: Molybdenum Analysis Run 1/23/2019 3:15 PM View: Confidence Interval  
 Plant Yates Client: Southern Company Data: Yates Ash Pond 2

# Confidence Interval

Constituent: Arsenic (mg/L) Analysis Run 1/23/2019 3:16 PM View: Confidence Interval

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)	
<b>Mean</b>	0.002332	0.002332	0.001882	0.002332	0.002332	0.001707	0.002332
<b>Std. Dev.</b>	0.0005578	0.0005578	0.0008681	0.0005578	0.0005578	0.0009132	0.0005578
<b>Upper Lim.</b>	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025
<b>Lower Lim.</b>	0.00065	0.00065	0.0006	0.00065	0.00065	0.00069	0.00065

# Confidence Interval

Constituent: Barium (mg/L) Analysis Run 1/23/2019 3:16 PM View: Confidence Interval

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	
<b>Mean</b>	0.06619	0.02808	0.06913	0.1039	0.08919	0.2148	0.07115
<b>Std. Dev.</b>	0.002507	0.001744	0.00757	0.007837	0.004311	0.008048	0.007288
<b>Upper Lim.</b>	0.06828	0.02954	0.07544	0.1105	0.09278	0.2215	0.07723
<b>Lower Lim.</b>	0.0641	0.02663	0.06282	0.09741	0.0856	0.2081	0.06508

# Confidence Interval

Constituent: Cobalt (mg/L) Analysis Run 1/23/2019 3:16 PM View: Confidence Interval

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)	
<b>Mean</b>	0.004659	0.002618	0.02155	0.002645	0.004584	0.001395	0.003375
<b>Std. Dev.</b>	0.001131	0.0009304	0.03454	0.0007917	0.001381	0.001207	0.002257
<b>Upper Lim.</b>	0.005	0.003305	0.078	0.0026	0.005	0.0013	0.005
<b>Lower Lim.</b>	0.00125	0.001901	0.0014	0.0022	0.00042	0.0008	0.0003

# Confidence Interval

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 1/23/2019 3:16 PM View: Confidence Interval

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)	
<b>Mean</b>	1.241	0.7047	3.261	0.7745	0.5434	0.6578	0.9323
<b>Std. Dev.</b>	1.836	0.2124	1.032	0.3066	0.2794	0.334	0.4317
<b>Upper Lim.</b>	1.604	0.8684	4.121	1.03	0.7762	0.9362	1.292
<b>Lower Lim.</b>	0.3587	0.5349	2.401	0.5189	0.3105	0.3795	0.5725

# Confidence Interval

Constituent: Fluoride (mg/L) Analysis Run 1/23/2019 3:16 PM View: Confidence Interval

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	
Mean	0.1168	0.1762	0.1372	0.2073	0.1548	0.2425	0.1213
Std. Dev.	0.03715	0.1176	0.02799	0.1134	0.08297	0.1063	0.03631
Upper Lim.	0.15	0.35	0.15	0.3787	0.24	0.3259	0.15
Lower Lim.	0.08	0.044	0.086	0.161	0.08	0.1591	0.08

# Confidence Interval

Constituent: Lithium (mg/L) Analysis Run 1/23/2019 3:16 PM View: Confidence Interval

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)	
<b>Mean</b>	0.006609	0.02295	0.01016	0.02295	0.007	0.02275	0.006355
<b>Std. Dev.</b>	0.0004134	0.006784	0.001988	0.006784	0.0003	0.007115	0.0009092
<b>Upper Lim.</b>	0.006954	0.025	0.01182	0.025	0.00725	0.025	0.007112
<b>Lower Lim.</b>	0.006265	0.0025	0.008507	0.0025	0.00675	0.0025	0.005597

# Confidence Interval

Constituent: Molybdenum (mg/L) Analysis Run 1/23/2019 3:16 PM View: Confidence Interval

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	
<b>Mean</b>	0.005227	0.005227	0.004	0.005227	0.003664	0.004436	0.005227
<b>Std. Dev.</b>	0.0007538	0.0007538	0.001722	0.0007538	0.001856	0.002015	0.0007538
<b>Upper Lim.</b>	0.005	0.005	0.005	0.005	0.005	0.005	0.005
<b>Lower Lim.</b>	0.005	0.005	0.0011	0.005	0.0011	0.0006	0.005



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