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Georgia Power

2020 SEMIANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

Plant Yates - AP-1

Newnan, Georgia

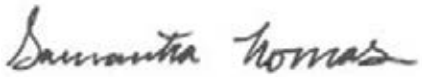
February 2021

2020 Semiannual Groundwater Monitoring and Corrective Action Report

Plant Yates - AP-1
Newnan, Georgia

Prepared for:

Georgia Power Company
Newnan, Georgia
Coweta, County



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February 26, 2021

SUMMARY

This summary of the 2020 Semiannual Monitoring and Corrective Action Report provides the status of groundwater monitoring and corrective action program through December 2020 at Georgia Power Company's (Georgia Power's) Plant Yates Ash Pond (AP) AP-1 (the Site). This summary was prepared by Arcadis U.S., Inc. (Arcadis) on behalf of Georgia Power to meet the requirements listed in Part A, Section 6[1] of the U.S. Environmental Protection Agency (USEPA) coal combustion residual (CCR) rule (40 Code of Federal Regulations [CFR] 257 Subpart D).

Plant Yates is located at 708 Dyer Road, approximately 8 miles northwest of Newnan and 13 miles southeast of Carrollton in Coweta County, Georgia. Plant Yates originally operated seven coal-fired steam generating units. Five of the units were retired in 2015 and two units were converted from coal to natural gas. CCR material resulting from power generation have historically been transferred and stored at the Site. The Site is located on the southwestern portion of the Plant Yates property shown on Figure 1. AP-1 was closed by removal of CCR material.

Figure 1. Plant Yates and the Site

Groundwater at the Site is monitored using a monitoring system comprised of 19 upgradient and 5 downgradient wells installed at the Site. Routine sampling and reporting began in 2019 after the completion of eight background sampling events. Based on groundwater conditions at the Site, an assessment monitoring program was established on November 13, 2019. During the 2020 semiannual reporting period, the Site remained in assessment monitoring.

During the 2020 reporting period, Arcadis conducted groundwater sampling events in September, and in October and November for recently installed wells YGWC-46A and YGWC-52. Groundwater samples were submitted to Pace Analytical Services, LLC, for analysis. Per the CCR rule, groundwater results were evaluated in accordance with the certified statistical methods. That evaluation showed statistically significant values of Appendix III[2] parameters in wells provided in the table below. There were no statistically significant levels (SSLs) for Appendix IV parameters.

Appendix III Parameter	September 2020
Boron	YGWC-44, YGWC-45, YGWC-46A
Calcium	YGWC-45, YGWC-46A, YGWC-52

[1] 80 FR 21468, Apr. 17, 2015, as amended at 81 FR 51807, Aug. 5, 2016; 83 FR 36452, July 30, 2018; 85 FR 53561, Aug. 28, 2020
[2] Boron, calcium, chloride, fluoride, pH, sulfate, and total dissolved solids (TDS)

Appendix III Parameter	September 2020
Chloride	YGWC-44, YGWC-46A
Sulfate	YGWC-45, YGWC-46A
Total Dissolved Solids	YGWC-44, YGWC-45, YGWC-46A, YGWC-52

Based on review of the Appendix III and Appendix IV statistical results completed for the groundwater monitoring and corrective action program, the Site will continue in assessment monitoring. Georgia Power will continue routine groundwater monitoring and reporting at the Site. Reports will be posted to the website and provided to EPD semiannually.

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ACRONYMS AND ABBREVIATIONS

ACC	Atlantic Coast Consulting, Inc.
ACM	Assessment of Corrective Measures
AP	Plant Yates Ash Ponds
CCR	Coal Combustion Residuals
CFR	Code of Federal Regulations
DO	dissolved oxygen
GAEPD	Georgia Environmental Protection Division
GPC	Georgia Power Company
GWPS	Groundwater Protection Standard
MCL	Maximum Contaminant Level
MDL	Method Detection Limit
mg/L	milligrams per liter
QA/QC	Quality Assurance/Quality Control
SSI	Statistically Significant Increase
SSL	statistically significant level
USEPA	United States Environmental Protection Agency

PROFESSIONAL CERTIFICATION

This *2020 Semiannual Groundwater Monitoring and Corrective Action Report* for the Georgia Power Company Plant Yates AP-1 has been prepared in compliance with the United States Environmental Protection Agency coal combustion residual rule (40 Code of Federal Regulations 257 Subpart D) and the Georgia Environmental Protection Division Rules for Solid Waste Management 391-3-4-.10 by a qualified groundwater scientist or engineer with Arcadis, U.S., Inc.

Arcadis U.S., Inc.

02-26-21

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1 INTRODUCTION

This *2020 Semiannual Groundwater Monitoring and Corrective Action Report* presents groundwater monitoring activities conducted at the Georgia Power Company (GPC) Plant Yates Ash Pond (AP) AP-1 (the Site) in the second half of 2020. This report was prepared in accordance with the United States Environmental Protection Agency (USEPA) Coal Combustion Residuals (CCR) Rule (40 Code of Federal Regulations [CFR] 257 Subpart D) and the Georgia Environmental Protection Division (GAEPD) Rules for Solid Waste Management 391-3-4-.10. Groundwater monitoring requirements for the site are specified by GAEPD Rule 391-3-4-.10(6)(a), which also incorporates the USEPA CCR Rule. For ease of reference, the USEPA CCR Rules are cited within this report.

Groundwater monitoring and reporting for CCR units is performed in accordance with the monitoring requirements §§ 257.90 through 257.95 of the Federal CCR Rule and the Georgia EPD Rule 391-3-4-10(6)(a)-(c). A notice of assessment monitoring notification was placed in the operating record in November 2019 based on statistically significant increases (SSIs) documented in the 2019 Annual Groundwater Monitoring and Corrective Action Report. This report presents the results of both the annual monitoring for Appendix IV of 40 CFR 257 conducted in August 2020, and one semiannual monitoring event conducted in September 2020.

1.1 Site Description and Background

Plant Yates is located at 708 Dyer Road on the east bank of the Chattahoochee River in Coweta County, Georgia near the Coweta and Carroll County line. The Site is 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** depicts the site location relative to the surrounding area.

AP-1 was closed by removal; the CCR material was removed from AP-1 to an onsite landfill. EPD provided an acknowledgement of removal of CCR in a letter dated November 3, 2020. A permit application to comply with GA EPD Rules was submitted in November 2018 and is currently under review. Semiannual reporting is completed pursuant to 391-3-4-.10(6)(c).

1.2 Site Geology and Hydrogeologic Setting

Plant Yates is located in the Inner Piedmont Physiographic Province of western Georgia, immediately southeast of the Brevard Zone, a regional fault zone that separates the Piedmont from the Blue Ridge. Rock units at Plant Yates are primarily interlayered gneiss and schists. The rocks in the area have been subjected to extensive metamorphism, deformation, and igneous intrusions. Extensive fracture sets are present in the underlying bedrock. Surface expressions of these fractures are observed on topographic maps and aerial photos of the Plant Yates area (ACC February 2020).

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 to 40 feet below ground surface, was formed in-place by the physical and chemical weathering of the underlying metamorphic rocks. The saprolite typically consists of clay and silt rich soils that grade to sandier soils with depth. A zone of variable thickness (approximately 5 to 20 feet) of transitionally weathered rock typically exists between the saprolite and competent bedrock. The

lithology of the transition zone is highly variable and ranges from medium to coarse unconsolidated material to highly fractured and weathered rock fragments. Localized alluvial soils consisting of generally coarser material (silty-sand, clayey silt, and silty clay with well-rounded gravel and cobbles) that have been observed in saprolite may be related to historical river channel migration.

At Plant Yates, groundwater is typically encountered slightly above the saprolite/weathered rock interface. Groundwater flow in the saprolite zone is through interconnected pores and relict textures and fractures. As the rock becomes increasingly competent with depth, groundwater flow occurs mainly through joints and fractures (i.e., secondary porosity). Recharge to the water-bearing zones in fractured bedrock takes place by seepage through the overlying mantle of soil/saprolite, or by direct entrance through openings in outcrops. The average depth of the water table at Plant Yates varies with topography, ranging from approximately 5 to 50 feet below ground surface. The water table occurs in the saprolite and in the transitionally weathered zone, at least several feet above the top of rock.

Field hydraulic conductivity tests (i.e., slug tests) have been performed in saprolite and weathered bedrock at multiple locations at the Site. The hydraulic conductivity at these locations is typically in a range from 10^{-3} to 10^{-4} centimeters per second, based on multiple rising-head and falling-head slug tests (ACC 2019). This indicates a fairly uniform medium across the saprolite and weathered rock horizon. The hydraulic conductivity values from the field tests fall within a range consistent with that of Piedmont overburden (Newell et al. 1990).

1.3 Groundwater Monitoring Well Network and CCR Unit Description

Pursuant to § 257.91, a groundwater monitoring system was installed within the uppermost aquifer at Plant Yates' AP-1 CCR Unit. The monitoring system is designed to monitor groundwater passing the waste boundary of the CCR Unit within the uppermost aquifer. Wells are located to monitor upgradient and downgradient conditions based on groundwater flow direction. The compliance monitoring well network is summarized in **Table 1** along with a series of piezometers and non-network wells installed to supplement characterization and groundwater elevation measurements.

As typical of the Piedmont Physiographic Province, there is a degree of connectivity between the saprolite and partially weathered rock units. Fractured bedrock may or may not be connected to the overlying units and flow may be controlled by geologic structures present. Based on the site hydrogeology, the monitoring system is designed to monitor groundwater flow in the saprolite, the transition-zone, and the upper bedrock. The monitoring well network for the Site is provided on **Figure 2**.

2 GROUNDWATER MONITORING ACTIVITIES

Pursuant to 40 CFR § 257.90(e), the following describes monitoring-related activities performed in the second half of 2020 and presents the status of the monitoring program. Groundwater sampling was performed in accordance with 40 CFR § 257.93. Samples were collected from each well in the certified monitoring system shown on **Figure 2**.

Table 2 summarizes groundwater sampling events conducted by ACC at the Site during the past second half of 2020. During the August 2020 event, groundwater samples were collected and analyzed for 40 CFR 257 Appendix IV constituents to meet the requirement of 40 CFR § 257.95(b). During the September 2020

semiannual sampling event, groundwater samples were collected for both 40 CFR 257 Appendix III and the Appendix IV constituents detected during the August 2020 event. Laboratory reports for the monitoring events are presented in **Appendix A**. Field sampling logs are provided in **Appendix B**.

2.1 Monitoring Well Installation and Maintenance

Monitoring well related activities were limited to visual inspection well conditions prior to sampling, recording the site conditions, and performing exterior maintenance to provide safe access for sampling. Downgradient monitoring network wells were installed along the downgradient waste boundary pursuant to § 257.91(a)(2). Details regarding the wells are included on **Table 1** and locations presented on **Figure 2**.

2.2 Assessment Monitoring

Statistically Significant Increases (SSIs) of Appendix III constituents were identified in the initial detection monitoring event (March 2019). This year's assessment scan monitoring event was conducted in August 2020. A semiannual assessment monitoring event was conducted in September 2020. Pursuant to § 257.95(d)(1), groundwater samples collected from the CCR monitoring wells were analyzed for Appendix III constituents and those Appendix IV constituents detected during the August sampling event.

3 SAMPLING METHODOLOGY AND ANALYSIS

Groundwater monitoring methods used at the Site are described in the following sections.

3.1 Groundwater Flow Direction, Gradient, and Velocity

Prior to each sampling event, static water elevations were recorded from piezometers and wells in the well network at AP-1. Groundwater elevations recorded during the August and September 2020 monitoring events are summarized in **Table 3**. Potentiometric surface maps are provided in **Figure 3 and Figure 4**. The general direction of groundwater flow across the site is towards the west/southwest and is consistent with historical patterns.

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

Specifically:

$$v = \frac{k\left(\frac{dh}{dl}\right)}{n_e}$$

where:
v = groundwater seepage velocity
k = hydraulic conductivity
dh/dl = hydraulic gradient
n_e = effective porosity

Groundwater flow velocities were calculated for the site based on hydraulic gradients, average hydraulic conductivity based on previous slug test data, and an estimated effective porosity of 0.20 (based on a review of several sources, including Driscoll 1986, USEPA 1989, and Freeze and Cherry 1979). Groundwater flow velocities have been calculated and are presented in **Table 4**. The calculated flow velocity is approximately 1.4 feet per day or 511 feet per year.

3.2 Groundwater Sampling

Groundwater samples were collected using low-flow sampling procedures in accordance with 40 CFR § 257.93(a). Monitoring wells were purged and sampled using a dedicated bladder pump until water quality parameters stabilized. 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). All non-disposable equipment was decontaminated before use and between well locations.

An AquaTroll 600™ (In-Situ field instrument) was used to monitor and record field water quality parameters (pH, conductivity, temperature, oxidation-reduction potential [ORP], and dissolved oxygen [DO]) during well purging to verify stabilization prior to sampling. Turbidity was measured using a portable turbidimeter. Groundwater samples were collected when the following stabilization criteria were met for a minimum of three consecutive readings:

- ± 0.1 standard units for pH.
- ± 5% for specific conductance.
- Turbidity measurements less than 10 nephelometric turbidity units.

Once stabilization was achieved, samples were collected directly into laboratory-supplied sample containers with preservative (where applicable). The samples were placed on ice in an insulated cooler following their collection. The samples were submitted to Pace Analytical Services, LLC (following chain-of-custody protocol. Stabilization logs for each well are included in **Appendix B**.

3.3 Laboratory Analysis

Groundwater samples collected from the August 2020 assessment scan monitoring event were analyzed for Appendix IV parameters. Groundwater samples collected during the subsequent semiannual assessment events were analyzed for Appendix III parameters as well as those Appendix IV parameters detected above the laboratory MDL during the August monitoring event in accordance with 40 CFR § 257.95(d). Appendix IV parameters not detected during the August event included: cadmium, mercury, selenium, and thallium. Following installation of replacement well YGWC-46A, sampling for Appendix III and IV constituents occurred in July, August, September, October, and November. Similarly, Appendix III and IV constituents were sampled at YGWC-52 in August, September, October, and November. **Table 5** provides a summary of the constituents monitored during the events. Analytical methods used for groundwater sample analysis are listed on the analytical laboratory reports included in **Appendix A**.

Analytical data collected from the initial assessment scan and semiannual sampling are summarized in **Table 6**. A summary of historical groundwater data is provided in **Appendix C**.

Laboratory analyses were performed by Pace Analytical Services, LLC, which is accredited by the National Environmental Laboratory Accreditation Program and maintains this certification for all parameters analyzed for this project. Laboratory reports and chain-of-custody records for the monitoring events are presented in **Appendix A**.

3.4 Data Quality Assurance/Quality Control and Validation

During each sampling event, quality assurance/quality control (QA/QC) samples were collected at a rate of one sampler per every 10 samples. QA/QC samples included equipment blanks (where non-dedicated equipment is used), field blanks, and duplicate samples. Groundwater quality data in this report was validated in accordance with USEPA guidance (USEPA 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-digestion spikes, laboratory and field duplicate relative percent differences, equipment blanks, and reporting limits. Where appropriate, validation qualifiers and flags have been applied to the data using USEPA procedures as guidance (USEPA 2017). The data validation report included in **Appendix A** summarizes the validation actions and applicable interpretation.

The purpose of the data quality evaluation was to determine the reliability of the chemical analyses and the accuracy and precision of information acquired from the laboratory. Data quality was assessed through the review and evaluation of field sampling activities, quality control samples, and data associated with the chemical analytical results. The data are considered useable for meeting project objectives and the results are considered valid. The complete results of the data quality evaluations are provided in **Appendix A**.

Values followed by a "J" flag indicate that the value is an estimated analyte concentration detected between the MDL and the laboratory reporting limit. 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 STATISTICAL ANALYSIS

Statistical analysis of Appendix III and IV groundwater monitoring data was performed on samples collected from the AP-1 groundwater monitoring network pursuant to § 257.93(f) in September 2020. The statistical method used at the site was developed 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 (USEPA, 2009).

4.1 Statistical Methods

The Sanitas™ groundwater statistical software was used to perform the statistical analyses. Sanitas™ is a decision support software package that incorporates the statistical tests required of Subtitle C and D facilities by USEPA regulations and guidance as recommended in the Unified Guidance document (USEPA 2009). Although Assessment Monitoring has been implemented, statistical evaluation of Appendix III constituents is performed to determine whether constituents have returned to background conditions.

4.1.1 Appendix III Constituents

Groundwater data were evaluated using interwell prediction limits for Appendix III parameters. This method uses sitewide pooled upgradient monitoring well data to establish a background statistical limit. Data from the semiannual events were compared to the statistical limit to determine whether concentrations exceeded background levels. The statistical method incorporates an optional 1-of-2 verification resample plan. When an initial statically significant increase (SSI) or questionable result occurs, a second sample may be collected to verify the initial result or determine whether the result was an outlier. If resampling is performed and the initial finding is not verified, the resampled value replaces the initial finding. When the resample confirms the initial result, both values remain in the database and an SSI is declared. The following criteria were applied to the evaluation:

- Statistical analyses were not performed on analytes containing 100 percent non-detects
- When data contained less than 15 percent non-detects in background, simple substitution of one-half the reporting limit was used in the statistical analysis. The reporting limit used for non-detects is the practical quantification limit reported by the laboratory.
- When data contained between 15 to 50 percent non-detects, the Kaplan-Meier non-detect adjustment was applied to the background data. This technique adjusts the mean and standard deviation of the historical concentrations to account for concentrations below the reporting limit.
- Non-parametric prediction limits were used on data containing greater than 50 percent non-detects.

4.1.2 Appendix IV Assessment Monitoring Statistics

Parametric tolerance limits were used to calculate background limits from pooled sitewide upgradient well data for Appendix IV parameters with a target of 95 percent confidence and 95 percent coverage. The pool of upgradient data is representative of the range and variability of naturally occurring concentrations at Plant Yates. The background wells at Plant Yates are identified below.

Background Wells		
YGWA-47	YGWA-5D	YGWA-30I
YGWA-1I	YGWA-5I	YGWA-4I
YGWA-1D	YGWA-17S	YGWA-21I
YGWA-2I	YGWA-18I	YGWA-39
YGWA-3I	YGWA-18S	YGWA-40
YGWA-3D	YGWA-20S	
GWA-2	YGWA-14S	

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 standards (GWPS) established under 40 CFR § 257.95(h) and GAEPD Rule 391-3-4-.10(6)(a).

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

- The maximum contaminant level (MCL) established under §§ 141.62 and 141.66 of this title;
- For the following constituents:
  - Cobalt 0.006 mg/L
  - Lead 0.015 mg/L
  - Lithium 0.040 mg/L
  - Molybdenum 0.100 mg/L; and
- The background level for constituents where the background level is higher than the MCL or rule identified GWPS.

USEPA 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 GAEPD Rules for Solid Waste Management 391-3-4-.10(6)(a); 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 GAEPD rules, the GWPS is:

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

Following the above federal and state rules, GWPS have been established for statistical comparison of Appendix IV constituents at AP-1. **Table 7** summarizes the background limits established at each monitoring well for the September 2020 sampling event along with the GWPS established under federal and state 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 federal and state rules. A well/constituent pair was considered to exceed its respective standard only when the entire confidence interval exceeded a GWPS. If there was an exceedance of the established standard, an SSL exceedance was identified.

4.2 Statistical Analysis Results

Appendix III statistical analysis for wells associated with the Site was performed to determine whether constituents have returned to background levels. Appendix IV assessment monitoring parameters were evaluated to determine whether concentrations statistically exceed the established GWPS. Analytical data from the first semiannual assessment monitoring event (September 2020) was statistically analyzed in accordance with the Statistical Analysis Plan (Groundwater Stats Consulting 2019).

Based on review of the Appendix III statistical analysis presented in **Appendix D**, Appendix III constituents have not returned to background levels and assessment monitoring should continue pursuant to 40 CFR § 257.95(f). A table summarizing these constituents and wells is provided in **Appendix D**.

4.2.1 First Semiannual Assessment Monitoring Event

Statistical analysis of the September 2020 Appendix IV data at AP-1 was completed using the GWPS established according to both 40 CFR § 257.95(h) and GA EPD Rule 391-3-4-.10(6)(a). No SSLs were identified.

5 MONITORING PROGRAM STATUS

In accordance with 40 CFR § 257.94(e), an assessment monitoring program was implemented in November 2019. No statistical exceedance of a GWPS for Appendix IV parameters has been identified. Pursuant to 40 CFR § 257.96(b), groundwater will continue to be monitored at AP-1 in accordance with the assessment monitoring program regulations of 40 CFR § 257.95 due to SSIs for Appendix III parameters.

6 CONCLUSIONS AND FUTURE ACTIONS

This *2020 Semiannual Groundwater Monitoring and Corrective Action Report* was prepared to fulfill the requirements of USEPA's CCR Rule 40 CFR § 257.95 and GAEPD Rule 391-3-4-.10. Statistical evaluations of the groundwater monitoring data for the Site identified no exceedance of a GWPS for an Appendix IV constituent.

The next assessment monitoring event is tentatively scheduled for March 2020.

7 REFERENCES

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TABLES

Table 1 - Monitoring Network Well Summary
2020 Semiannual Groundwater Monitoring and Corrective Action Report
Georgia Power Company
Plant Yates - AP-1

Well ID	Installation Date	Top of Casing Elevation (ft)	Bottom Depth (ft bTOC)	Bottom Elevation (ft)	Depth to Top of Screen (ft bTOC)	Top of Screen Elevation (ft)	Hydraulic Location / Purpose
Network Wells							
YGWA-47	7/11/2016	758.22	59.19	696.41	48.62	709.60	Upgradient
YGWC-44	7/13/2016	758.35	89.85	665.65	78.35	680.00	Downgradient
YGWC-45	7/10/2016	719.36	72.86	643.64	62.86	656.50	Downgradient
YGWC-46A	6/1/2020	733.04	70.79	659.31	60.79	672.25	Downgradient
YGWC-52	5/28/2020	755.86	79.22	673.68	69.22	686.64	Downgradient
Non-Network Wells							
PZ-09S	5/19/2014	712.08	59.28	650.52	48.98	663.10	Piezometer
PZ-09I	5/19/2014	712.13	79.33	630.47	69.03	643.10	Piezometer
PZ-10S	5/19/2014	700.43	18.63	679.47	8.33	692.10	Piezometer
PZ-10I	5/19/2014	700.25	48.95	648.85	38.65	661.60	Piezometer
PZ-53	11/18/2019	732.90	72.00	657.90	61.71	671.19	Downgradient

Notes

ft bTOC - feet below top of casing

Elevation in U.S. Survey Feet (NAVD88) based on June 2020 well survey

Horizontal locations are relative to the Georgia State Plane Coordinate System, West Zone, NAD1983, US Survey Feet

Table 2
Groundwater Sampling Event Summary
2020 Semiannual Groundwater Monitoring and Corrective Action Report
Georgia Power Company
Plant Yates AP-1

Well ID	Hydraulic Location	Summary of Sampling Events	
		Annual Appendix IV	Semiannual Assessment
		August 2020	September 2020
YGWA-47	Upgradient	Scan	A-04
YGWC-44	Downgradient	Scan	A-04
YGWC-45	Downgradient	Scan	A-04
YGWC-46A	Downgradient	Scan	A-01
YGWC-52	Downgradient	Scan	A-01

Notes

1. Scan - All Appendix IV

2. A-XX - Assessment Event Number (Appendix III and Detected Appendix IV)

3. Following installation, YGWC-46A was sampled in July, October, and November in addition to August and September. YGWC-52 was additionally sampled in October and November.

Table 3
Summary of Groundwater Elevations
2020 Semiannual Groundwater Monitoring and Corrective Action Report
Georgia Power Company
Plant Yates AP-1

Well ID	Dated Measured	TOC (ft)	Depth-to-Water (ft bTOC)	Groundwater Elevation (ft)
YGWA-47	8/26/2020	758.22	32.82	725.40
YGWC-44	8/26/2020	758.35	49.41	708.94
YGWC-45	8/26/2020	719.36	22.43	696.93
YGWC-46A	8/26/2020	733.04	38.56	694.48
YGWC-52	8/26/2020	755.86	36.93	718.93
PZ-09S	8/26/2020	712.08	17.90	694.18
PZ-09I	8/26/2020	712.13	18.21	693.92
PZ-10S	8/26/2020	700.43	7.24	693.19
PZ-10I	8/26/2020	700.25	12.01	688.24
PZ-53	8/26/2020	732.90	38.43	694.47
YGWA-47	9/21/2020	758.22	33.38	724.84
YGWC-44	9/21/2020	758.35	49.71	708.64
YGWC-45	9/21/2020	719.36	22.31	697.05
YGWC-46A	9/21/2020	733.04	37.96	695.08
YGWC-52	9/21/2020	755.86	37.30	718.56
PZ-09S	9/21/2020	712.08	17.35	694.73
PZ-09I	9/21/2020	712.13	17.61	694.52
PZ-10S	9/21/2020	700.43	6.73	693.70
PZ-10I	9/21/2020	700.25	13.14	687.11
PZ-53	9/21/2020	732.90	37.83	695.07

Notes

ft bTOC - feet below top of casing

Elevation in U.S. Survey Feet (NAVD88)

Equation

$$\frac{V = K\,(dh/dl)}{n_e}$$

where:

V = groundwater velocity
K = hydraulic conductivity
dh/dl = hydraulic gradient
n_e = effective porosity

Values Used in Calculation

Value			Source
K:	3.70E-03	cm/sec	See note 1
	10.5	ft/day	
i_1 =	0.027	unitless	Hydraulic gradient from: YGWA-47 to PZ-09S (Aug. 2020)
i_1 =	0.026		YGWA-47 to PZ-09S (Sep. 2020)
n_e =	0.20	unitless	See note 2

Average Linear Velocity

Aug. 2020

$$V_{min} = \frac{(10.5)\,(0.027)}{0.20}$$

V_{min} = 1.4 ft/day, or 511 ft/year

Sep. 2020

$$V_{min} = \frac{(10.5)\,(0.026)}{0.20}$$

V_{min} = 1.4 ft/day, or 511 ft/year

Notes

1. Slug tests performed by Atlantic Coast Consulting, Inc. (2017)
2. Default value recommended by USEPA for silty sand-type soil (USEPA 1996).

Table 5
Summary of Groundwater Monitoring Parameters
2020 Semiannual Groundwater Monitoring and Corrective Action Report
Georgia Power Company
Plant Yates AP-1

40 CFR 257 Appendix III	40 CFR 257 Appendix IV
Boron	Antimony
Calcium	Arsenic
Chloride	Barium
Fluoride	Beryllium
pH	*Cadmium*
Sulfate	Chromium
Total Dissolved Solids	Cobalt
	Fluoride
	Lead
	Lithium
	Mercury
	Molybdenum
	Combined Radium - 226/228
	Selenium
	Thallium

Notes:
Italicized groundwater monitoring parameters not detected during the annual scan event (August 2020) and therefore not included in September 2020 semiannual parameter list

Table 6
Summary of Groundwater Analytical Data
2020 Semiannual Groundwater Monitoring and Corrective Action Report
Georgia Power Company
Plant Yates AP-1

	Analyte	YGWA-47 8/27/2020	YGWA-47 9/22/2020	YGWC-44 8/27/2020	YGWC-44 9/22/2020	YGWC-45 8/28/2020	YGWC-45 9/23/2020	YGWC-46A 8/28/2020	YGWC-46A 9/23/2020
Appendix III	pH	4.88	5.46	5.75	5.53	6.84	6.57	7.05	6.81
	Boron	--	0.0076 J	--	0.59	--	0.32	1.9	2.0
	Calcium	--	10.1	--	30.4	--	50.0	102	104
	Chloride	--	4.2	--	14.4	--	4.9	25.9	28.1
	Fluoride	< 0.050	< 0.050	< 0.050	< 0.050	0.070 J	0.082 J	0.12	0.12
	Sulfate	--	51.5	--	130	--	170	394	430
	TDS	--	141	--	294	--	404	838	832
Appendix IV	Antimony	0.00048 J	< 0.00028	< 0.00028	< 0.00028	0.0017 J	< 0.00028	0.00029 J	< 0.00028
	Arsenic	< 0.00078	< 0.00078	< 0.00078	< 0.00078	< 0.00078	< 0.00078	0.0015 J	0.00091 J
	Barium	0.027	0.026	0.086	0.096	0.053	0.052	0.050	0.045
	Beryllium	0.000047 J	< 0.000046	< 0.000046	< 0.000046	< 0.000046	< 0.000046	< 0.000046	< 0.000046
	Cadmium	< 0.00012	--	< 0.00012	--	< 0.00012	--	< 0.00012	--
	Chromium	< 0.00055	< 0.00055	< 0.00055	< 0.00055	< 0.00055	0.00058 J	< 0.00055	< 0.00055
	Cobalt	0.0011 J	0.00097 J	0.0030 J	0.0065	0.00055 J	0.00053 J	0.0038 J	0.0015 J
	Fluoride	< 0.050	< 0.050	< 0.050	< 0.050	0.070 J	0.082 J	0.12	0.12
	Lead	< 0.000036	< 0.000036	< 0.000036	< 0.000036	< 0.000036	< 0.000036	< 0.000036	< 0.000036
	Lithium	0.0039 J	0.0036 J	0.013 J	0.013 J	0.012 J	0.012 J	0.012 J	0.013 J
	Mercury	< 0.000078	--	< 0.000078	--	< 0.000078	--	< 0.000078	--
	Molybdenum	< 0.00069	< 0.00069	< 0.00069	< 0.00069	0.0013 J	0.0011 J	0.0030 J	0.0025 J
	Combined Radium - 226/228	1.26 U	1.06 U	0.0859 U	0.327 U	0.983 U	0.746 U	2.34	0.575 U
	Selenium	< 0.0016	--	< 0.0016	--	< 0.0016	--	< 0.0016	--
	Thallium	< 0.00014	--	< 0.00014	--	< 0.00014	--	< 0.00014	--

Notes at end of table

Table 6
Summary of Groundwater Analytical Data
2020 Semiannual Groundwater Monitoring and Corrective Action Report
Georgia Power Company
Plant Yates AP-1

	Analyte	YGWC-46A 10/7/2020	YGWC-46A 11/12/2020	YGWC-52 8/27/2020	YGWC-52 9/22/2020	YGWC-52 10/7/2020	YGWC-52 11/12/2020
Appendix III	pH	7.06	7.0	5.80	5.91	5.87	5.9
	Boron	1.8	1.8	0.014 J	< 0.0052	0.018 J	0.012 J
	Calcium	105	110	52.3	53.5	53.8	53.6
	Chloride	28.2	26.7	3.9	4.1	4.0	3.8
	Fluoride	0.13	0.084 J	< 0.050	< 0.050	< 0.050	<0.050
	Sulfate	427	385	144	156	156	<1.5
	TDS	842	760	349	296	336	317
Appendix IV	Antimony	< 0.00028	< 0.00028	< 0.00028	< 0.00028	< 0.00028	< 0.00028
	Arsenic	0.0010 J	0.0014 J	< 0.00078	< 0.00078	< 0.00078	< 0.00078
	Barium	0.042	0.042	0.021	0.021	0.019	0.019
	Beryllium	< 0.000046	< 0.000046	< 0.000046	< 0.000046	< 0.000046	< 0.000046
	Cadmium	--	< 0.00012	< 0.00012	--	--	< 0.00012
	Chromium	< 0.00055	< 0.00055	< 0.00055	0.00073 J	0.00086 J	< 0.00055
	Cobalt	0.0014 J	0.0010 J	0.0022 J	0.0019 J	0.0019 J	0.0015 J
	Fluoride	0.13	0.084 J	< 0.050	< 0.050	< 0.050	<0.050
	Lead	< 0.000036	0.000044 J	0.000092 J	0.000060 J	< 0.000036	0.000064 J
	Lithium	0.011 J	0.014 J	0.0048 J	0.0046 J	0.0041 J	0.0044 J
	Mercury	--	< 0.000078	< 0.000078	--	--	< 0.000078
	Molybdenum	0.0024 J	0.0019 J	< 0.00069	< 0.00069	< 0.00069	< 0.00069
	Combined Radium - 226/228	1.81	0.106 U	0.852 U	0.268 U	0.819 U	1.41 U
	Selenium	--	< 0.0016	< 0.0016	--	--	< 0.0016
	Thallium	--	< 0.00014	< 0.00014	--	--	< 0.00014

Notes at end of table

Notes:

1. Analytical results are reported in milligrams per liter except for combined radium results, which are reported in picoCuries per liter and pH in standard units.
2. Appendix III = Indicator parameters evaluated during Detection Monitoring.
3. Appendix IV = Parameters evaluated during Assessment Monitoring.

-- Not analyzed for this constituent.

< Analyte was not detected above the laboratory method detection limit (MDL).

Laboratory Qualifiers:

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

U - 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.

Table 7 - Summary of Background Levels and Groundwater Protection Standards
2020 Semiannual Groundwater Monitoring and Corrective Action Report
Georgia Power Company
Plant Yates - AP-1

Constituent	Units	Background	Federal GWPS	State GWPS
September 2020				
Antimony	mg/L	0.0047	0.006	0.006
Arsenic	mg/L	0.005	0.010	0.010
Barium	mg/L	0.071	2	2
Beryllium	mg/L	0.003	0.004	0.004
Cadmium	mg/L	0.0025	0.005	0.005
Chromium	mg/L	0.01	0.100	0.100
Cobalt	mg/L	0.035	0.035[1]	0.035[1]
Fluoride	mg/L	0.68	4	4
Lead	mg/L	0.005	0.015	0.005
Lithium	mg/L	0.03	0.040	0.030
Mercury	mg/L	0.0005	0.002	0.002
Molybdenum	mg/L	0.014	0.1	0.014
Selenium	mg/L	0.01	0.050	0.050
Thallium	mg/L	0.001	0.002	0.002
Combined Radium - 226/228	pCi/L	6.92	6.92[1]	6.92[1]

Notes

1. Background concentration is higher than the federally promulgated value (0.006 mg/L for Co). Background is higher than radium MCL (5 mg/L). Therefore background is the GWPS.

Site background - Tolerance limits calculated from pooled upgradient well data.

Federal GWPS - Groundwater Protection Standard per 40 CFR §257.95(h).

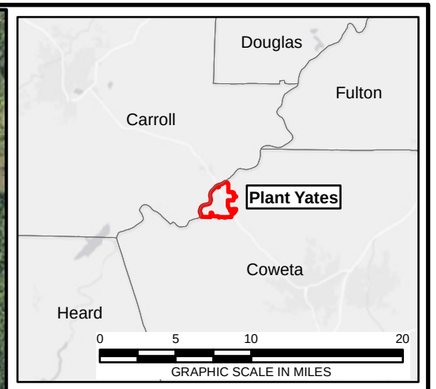
The background tolerance limit (TL) used to evaluate the lithium State GWPS equals the laboratory reporting limit (RL). Per the SAP, and in accordance with the Unified Guidance, a non-parametric limit approach was used since the data set contains greater than 50% non-detect results. Using this approach, the TL equals the highest value reported, which is the laboratory RL.

MCL - Maximum Contaminant Level

mg/L - millgrams per liter

pCi/L - picocuries per liter

FIGURES



LEGEND

APPROXIMATE PROPERTY BOUNDARY

PERMITTED UNIT BOUNDARY

NOTE:
AERIAL IMAGE SOURCES: NOVEMBER 11, 2020 IMAGERY FLOWN AND PROCESSED BY SAM LLC; NATIONAL AGRICULTURE IMAGERY PROGRAM (NAIP) 2019 IMAGERY.

0 650 1,300 2,600

GRAPHIC SCALE IN FEET

COORDINATE SYSTEM: NAD 1983 STATEPLANE GEORGIA WEST FIPS 1002 FEET

Georgia Power

PLANT YATES

2020 SEMIANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

SITE LOCATION MAP

ARCADIS Design & Consultancy for natural and built assets

FIGURE

1

PATH: T:_ENVGA_PowerGPC_Plant_Yates\MXD\2020\Basemap\F1_Site_Location_AP1.mxd DATE SAVED: 2/2/2021 11:07:16 AM LAST SAVED BY: tdunn

84°54'30"W
84°54'20"W
84°54'10"W
33°28'0"N
33°27'50"N

YGWA-47
YGWC-52
PZ-09S
PZ-09I
YGWC-44
YGWC-45
FORMER ASH POND 1
YGWC-46A
PZ-53
PZ-10I
PZ-10S

LEGEND

- TRANSITION NETWORK MONITORING WELL LOCATION
- BEDROCK NETWORK MONITORING WELL LOCATION
- SAPROLITE NON-NETWORK WELL/PIEZOMETER
- TRANSITION NON-NETWORK WELL/PIEZOMETER
- BEDROCK NON-NETWORK WELL/PIEZOMETER
- PERMITTED UNIT BOUNDARY

NOTES:
1. YGWC-52 WAS INSTALLED IN JUNE 2020.

2. AERIAL IMAGE SOURCES: NOVEMBER 11, 2020 IMAGERY FLOWN AND PROCESSED BY SAM LLC; NATIONAL AGRICULTURE IMAGERY PROGRAM (NAIP) 2019 IMAGERY.

0 112.5 225 450
GRAPHIC SCALE IN FEET

COORDINATE SYSTEM: NAD 1983 STATEPLANE GEORGIA WEST FIPS 1002 FEET

Georgia Power

PLANT YATES

2020 SEMIANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

WELL LOCATION MAP

ARCADIS Design & Consultancy for natural and built assets

FIGURE **2**

PATH: T:_ENVGA_Power\GPC_Plant_Yates\MXD\2020\Basemap\F2_Well_Map_AP1.mxd DATE SAVED: 2/2/2021 11:09:55 AM LAST SAVED BY: kfrum

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84°54'20"W
84°54'10"W
33°28'0"N
33°27'50"N

YGWA-47
725.40

YGWC-52
718.93

PZ-09S
694.18

PZ-09I
693.92

YGWC-44
708.94

YGWC-45
696.93

FORMER ASH POND 1

YGWC-46A
694.48

PZ-53
694.47

PZ-10I
688.24*

PZ-10S
693.19

725
720
715
710
705
700
695

LEGEND

- TRANSITION NETWORK MONITORING WELL LOCATION
- BEDROCK NETWORK MONITORING WELL LOCATION
- SAPROLITE NON-NETWORK WELL/PIEZOMETER
- TRANSITION NON-NETWORK WELL/PIEZOMETER
- BEDROCK NON-NETWORK WELL/PIEZOMETER
- PERMITTED UNIT BOUNDARY
- APPROXIMATE POTENTIOMETRIC CONTOUR (FEET) DASHED WHERE INFERRED
- 708.94 GROUNDWATER ELEVATION (FEET)

NOTES:

1. * = GROUNDWATER ELEVATION WAS NOT USED FOR POTENTIOMETRIC CONTOURING.

2. ELEVATION IS PRESENTED IN U.S. SURVEY FEET (NAVD 1988).

3. AERIAL IMAGE SOURCES: NOVEMBER 11, 2020 IMAGERY FLOWN AND PROCESSED BY SAM LLC; NATIONAL AGRICULTURE IMAGERY PROGRAM (NAIP) 2019 IMAGERY.

0 112.5 225 450

GRAPHIC SCALE IN FEET

COORDINATE SYSTEM: NAD 1983 STATEPLANE GEORGIA WEST FIPS 1002 FEET

Georgia Power

PLANT YATES

2020 SEMIANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

GROUNDWATER ELEVATION MAP, AUGUST 2020

ARCADIS Design & Consultancy for natural and built assets

FIGURE **3**

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84°54'30"W
84°54'20"W
84°54'10"W
33°28'0"N
33°27'50"N

YGWA-47
724.84
YGWC-52
718.56
YGWC-44
708.64
YGWC-45
697.05
YGWC-46A
695.08
PZ-09S
694.73
PZ-09I
694.52
PZ-53
695.07
PZ-10I
687.11*
PZ-10S
693.70
FORMER ASH POND 1

725
720
715
710
705
700
695

LEGEND

- TRANSITION NETWORK MONITORING WELL LOCATION
- BEDROCK NETWORK MONITORING WELL LOCATION
- SAPROLITE NON-NETWORK WELL/PIEZOMETER
- TRANSITION NON-NETWORK WELL/PIEZOMETER
- BEDROCK NON-NETWORK WELL/PIEZOMETER
- PERMITTED UNIT BOUNDARY
- APPROXIMATE POTENTIOMETRIC CONTOUR (FEET) DASHED WHERE INFERRED
- 708.64 GROUNDWATER ELEVATION (FEET)

NOTES:
1. * = GROUNDWATER ELEVATION WAS NOT USED FOR POTENTIOMETRIC CONTOURING.

2. ELEVATION IS PRESENTED IN U.S. SURVEY FEET (NAVD 1988).

3. AERIAL IMAGE SOURCES: NOVEMBER 11, 2020 IMAGERY FLOWN AND PROCESSED BY SAM LLC; NATIONAL AGRICULTURE IMAGERY PROGRAM (NAIP) 2019 IMAGERY.

0 112.5 225 450
GRAPHIC SCALE IN FEET

COORDINATE SYSTEM: NAD 1983 STATEPLANE GEORGIA WEST FIPS 1002 FEET

Georgia Power

PLANT YATES
2020 SEMIANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

GROUNDWATER ELEVATION MAP, SEPTEMBER 2020

ARCADIS Design & Consultancy for natural and built assets

FIGURE
4

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APPENDIX A

Laboratory Analytical and Data Validation Reports

ARCADIS Design & Consultancy for natural and built assets

Georgia Power Co. – Plant Yates

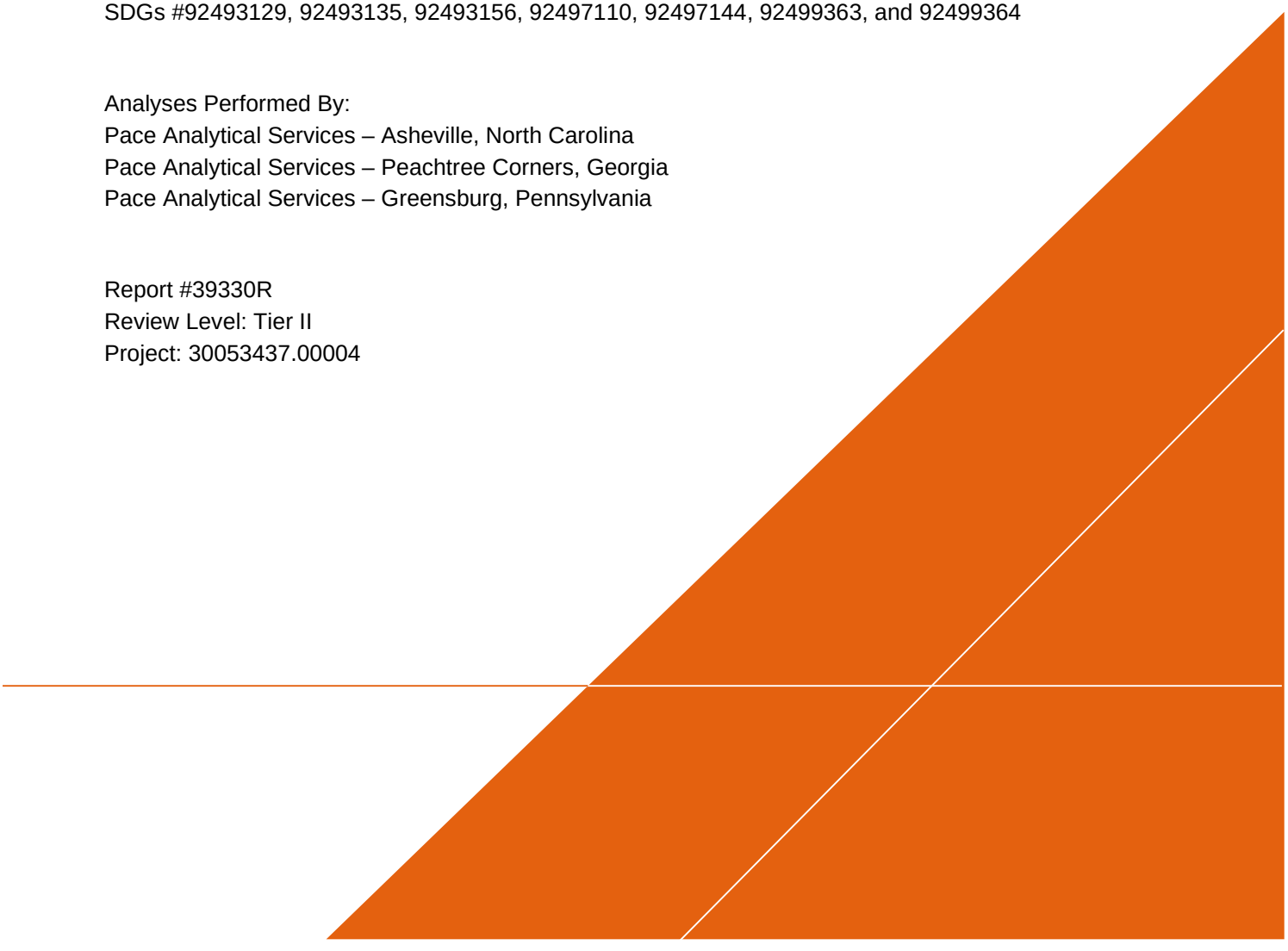
DATA REVIEW

Metals, Radium, and General Chemistry Analyses

SDGs #92493129, 92493135, 92493156, 92497110, 92497144, 92499363, and 92499364

Analyses Performed By:
Pace Analytical Services – Asheville, North Carolina
Pace Analytical Services – Peachtree Corners, Georgia
Pace Analytical Services – Greensburg, Pennsylvania

Report #39330R
Review Level: Tier II
Project: 30053437.00004



SUMMARY

This data quality assessment summarizes the review of Sample Delivery Groups (SDGs) #92493129, 92493135, 92493156, 92497110, 92497144, 92499363, and 92499364 for samples collected in association with the Georgia Power Company – Plant Yates. The review was conducted as a Tier II evaluation and included review of data package completeness. Only analytical data associated with constituents of concern were reviewed for this validation. Field documentation was not included in this review. Included with this assessment are the chain of custody form and a table summarizing the data validation qualifiers. Analyses were performed on the following samples:

SDG	Sample ID	Lab ID	Matrix	Sample Collection Date	Parent Sample	Analysis		
						RAD	MET	GEN CHEM
92493129	YGWC-46A (082820)	92493129001	Water	8/28/2020			X	X
	YGWC-52 (082720)	92493129002	Water	8/27/2020			X	X
	DUP-01 (082820)	92493129003	Water	8/28/2020	YGWC-46A (082820)		X	X
92493135 92493156	YGWC-44	92493135001 92493156001	Water	8/27/2020		X	X	X
	YGWC-45	92493135002 92493156002	Water	8/28/2020		X	X	X
	YGWA-47	92493135003 92493156003	Water	8/27/2020		X	X	X
	YGWC-46A	92493135004 92493156004	Water	8/28/2020		X	X	X
	YGWC-52	92493135005 92493156005	Water	8/27/2020		X	X	X
	DUP-01 (082820)	92493135006 92493156006	Water	8/28/2020	YGWC-46A	X	X	X
92497110 92497144	YGWA-47 (092220)	92497110001 92497144001	Water	9/22/2020		X	X	X
	YGWC-52 (092220)	92497110002 92497144002	Water	9/22/2020		X	X	X
	YGWC-44 (092220)	92497110003 92497144003	Water	9/22/2020		X	X	X
	YGWC-45 (092320)	92497110004 92497144004	Water	9/23/2020		X	X	X
	YGWC-46A (092320)	92497110005 92497144005	Water	9/23/2020		X	X	X
	DUP (092320)	9249711006 92497144006	Water	9/23/2020	YGWC-46A (092320)	X	X	X

SDG	Sample ID	Lab ID	Matrix	Sample Collection Date	Parent Sample	Analysis		
						RAD	MET	GEN CHEM
	FIELD BLANK (092320)	92497110007 92497144007	Water	9/23/2020		X	X	X
	EQUIPMENT BLANK (092320)	92497110008 92497144008	Water	9/23/2020		X	X	X
92499363 92499364	YGWC-46A (100720)	92499363001 92499364001	Water	10/7/2020		X	X	X
	YGWC-52 (100720)	92499363002 92499364002	Water	10/7/2020		X	X	X

Notes:

1. Metals and total dissolved solids (TDS) analysis performed by Pace Analytical Services – Peachtree Corners, Georgia.
2. Anions (chloride, fluoride, and sulfate) analysis performed by Pace Analytical Services – Asheville, North Carolina.
3. Radium analysis performed by Pace Analytical Services – Greensburg, Pennsylvania.
4. pH analysis performed as a field measurement.

ANALYTICAL DATA PACKAGE DOCUMENTATION

The table below is the evaluation of the data package completeness.

Items Reviewed	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
1. Sample receipt condition		X		X	
2. Requested analyses and sample results		X		X	
3. Master tracking list		X		X	
4. Methods of analysis		X		X	
5. Reporting limits		X		X	
6. Sample collection date		X		X	
7. Laboratory sample received date		X		X	
8. Sample preservation verification (as applicable)		X		X	
9. Sample preparation/extraction/analysis dates		X		X	
10. Fully executed Chain-of-Custody (COC) form		X		X	
11. Narrative summary of QA or sample problems provided		X		X	
12. Data Package Completeness and Compliance		X		X	

Note:

QA - Quality Assurance

INORGANIC ANALYSIS INTRODUCTION

Analyses were performed according to United States Environmental Protection Agency (USEPA) SW-846 Methods 6010D, 6020B, 9315, and 9320; Standard Method (SM) SM4500-H+ B and SM2540C; and USEPA Method 300.0. Data were reviewed in accordance with USEPA Region IV Data Validation Standard Operating Procedures for Contract Laboratory Program Inorganic Data by Inductively Coupled Plasma–Atomic Emission Spectroscopy and Inductively Coupled Plasma–Mass Spectroscopy (September 2011, Rev. 2), USEPA Region IV Data Validation Standard Operating Procedures for Contract Laboratory Program Mercury Data by Cold Vapor Atomic Absorption (September 2011, Rev. 2), and the National Functional Guidelines for Inorganic Superfund Methods Data Review (January2017).

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and that it was already subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with the USEPA National Functional Guidelines:

- Concentration (C) Qualifiers

  U The analyte was analyzed for but not detected. The associated value is the analyte instrument detection limit.

  J The reported value was obtained from a reading less than the reporting limit (RL), but greater than or equal to the method detection limit (MDL).

- Quantitation (Q) Qualifiers

  E The reported value is estimated due to the presence of interference.

  N Spiked sample recovery is not within control limits.

  * Duplicate analysis is not within control limits.

- Validation Qualifiers

  J The analyte was positively identified; however, the associated numerical value is an estimated concentration only.

  UJ The analyte was not detected above the reported sample detection limit. However, the reported limit is approximate and may or may not represent the actual limit of detection.

  UB Analyte considered non-detect at the listed value due to associated blank contamination.

  R The sample results are rejected.

Two facts should be noted by all data users. First, the “R” flag means that the associated value is unusable. In other words, due to significant quality control (QC) problems, the analysis is invalid and provides no information as to whether the compound is present or not. “R” values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

METALS ANALYSES

1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
SW-846 6010D/6020B	Water	180 days from collection to analysis	Cool to <6°C; preserved to a pH of less than 2 s.u.
SW-846 7470A	Water	28 days from collection to analysis	Cool to <6°C; preserved to a pH of less than 2 s.u.

Note:

s.u. = Standard units

All samples were analyzed within the specified holding times.

2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

SDGs #92493129 and 92493156: Metals were not detected above the MDL in the associated blanks; therefore, detected sample results were not associated with blank contamination.

SDG #92499364: Antimony was detected in the associated method blank; however, the associated sample results were not detected. No qualification of the sample results was required.

SDG #92497144: All analytes exhibited a concentration less than the MDL, with the exception of the compounds listed in the following table. Sample results less than the BAL associated with the following sample locations were qualified as listed in the following table.

Sample Locations	Analytes	Sample Result	Qualification
YGWA-47 (092220)	Boron (FB)	Detected sample results <RL and <BAL	“UB” at the RL

Note:

FB = Field blank

RL = Reporting limit

3. Matrix Spike/Matrix Spike Duplicate (MS/MSD)/Laboratory Duplicate Analysis

MS/MSD and laboratory duplicate data are used to assess the precision and accuracy of the analytical method.

3.1 MS/MSD Analysis

All metal analytes must exhibit a percent recovery within the established acceptance limits of 75% to 125%. The MS recovery control limits do not apply for MS performed on sample locations where the analyte's concentration detected in the parent sample exceeds the MS concentration by a factor of four or greater.

SDG #92493129: The MS/MSD analysis performed using sample YGWC-46A (082820) in association with SW-846 6010D analysis. The concentration of calcium in the unspiked sample was greater than four-times the amount of spike added; hence the recoveries were not evaluated, and no qualification of the results was required.

SDGs #92493129 and 92493156: The MS/MSD analysis performed using samples YGWC-52 (082720) and YGWC-44 in association with SW-846 6020B analysis exhibited recoveries within the control limits.

SDG # 92493156: The MS/MSD analysis performed using sample YGWC-45 in association with SW-846 7470A analysis exhibited recoveries within the control limits.

SDGs #92497144 and 92499364: MS/MSD analysis was not performed using a sample from this SDG in association with SW-846 6010D and SW-846 6020B analysis.

3.2 Laboratory Duplicate Analysis

The laboratory duplicate relative percent difference (RPD) criterion is applied when parent and duplicate sample concentrations are greater than or equal to 5 times the RL. A control limit of 20% for water matrices is applied when the criteria above is true. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of one times the RL is applied for water matrices.

SDG #92493129: MS/MSD analysis was performed using sample YGWC-46A (082820) in association with SW-846 6010D analysis in replacement of laboratory duplicate analysis. The concentration of calcium in the unspiked sample was greater than four-times the amount of spike added; hence the recoveries were not evaluated, and no qualification of the results was required.

SDGs #92493129 and 92493156: MS/MSD analysis was performed using samples YGWC-52 (082720) and YGWC-44 in association with SW-846 6020B analysis in replacement of laboratory duplicate analysis. The MS/MSD recoveries exhibited acceptable RPDs.

SDG # 92493156: MS/MSD analysis was performed using sample YGWC-45 in association with SW-846 7470A analysis in replacement of laboratory duplicate analysis. The MS/MSD recoveries exhibited acceptable an RPD.

SDGs #92497144 and 92499364: Laboratory duplicate analysis was not performed using a sample from this SDG in association with SW-846 6010D and SW-846 6020B analysis.

4. Field Duplicate Analysis

Field duplicate analysis is used to assess the overall precision of the field sampling procedures and analytical method. A control limit of 35% for water matrices is applied to the RPD between the parent

sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of two times the RL is applied for water matrices.

Results for duplicate samples are summarized in the following table.

Sample ID/Duplicate ID	Analyte	Sample Result	Duplicate Result	RPD
YGWC-46A (082820) / DUP-01 (082820)	Calcium	102	101	1.0%
	Boron	1.8	1.9	5.4%
	Antimony	0.00029 J	0.0030 U	AC
	Arsenic	0.0015 J	0.0013 J	
	Barium	0.050	0.048	
	Chromium	0.010 U	0.00066 J	
	Cobalt	0.0038 J	0.0036 J	
	Lead	0.0050 U	0.00022 J	
	Lithium	0.012 J	0.011 J	
	Molybdenum	0.0030 J	0.0029 J	
YGWC-46A (092320) / DUP (092320)	Calcium	104	108	3.8%
	Boron	2.0	1.9	5.1%
	Arsenic	0.00091 J	0.0050 U	AC
	Barium	0.045	0.042	
	Cobalt	0.0015 J	0.0013 J	
	Lithium	0.013 J	0.014 J	
	Molybdenum	0.0025 J	0.0021 J	

Note:

AC = Acceptable

The differences in the results between the parent sample YGWC-46A (082820) and field duplicate sample DUP-01 (082820) were acceptable.

The differences in the results between the parent sample YGWC-46A (092320) and field duplicate sample DUP1 (092320) were acceptable.

5. Laboratory Control Sample (LCS) Analysis

The LCS analysis is used to assess the accuracy of the analytical method independent of matrix interferences. The analytes associated with the LCS analysis must exhibit a percent recovery between the control limits of 80% and 120%.

The LCS analysis exhibited recoveries within the control limits.

6. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

DATA VALIDATION CHECKLIST FOR METALS

METALS: SW-846 6010D/6020B/7470A	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
Inductively Coupled Plasma-Atomic Emission Spectrometry (ICP-AES)					
Inductively Coupled Plasma-Mass Spectrometry (ICP-MS)					
Atomic Absorption – Manual Cold Vapor (CV)					
Tier II Validation					
Holding Times		X		X	
Reporting limits (units)		X		X	
Blanks					
A. Method Blanks		X		X	
B. Equipment/Field Blanks		X	X		
Laboratory Control Sample (LCS) %R		X		X	
Matrix Spike (MS) %R		X		X	
Matrix Spike Duplicate (MSD) %R		X		X	
MS/MSD Precision (RPD)		X		X	
Field/Lab Duplicate (RPD)		X		X	
Reporting Limit Verification		X		X	

Notes:

%R Percent recovery

RPD Relative percent difference

GENERAL CHEMISTRY ANALYSES

1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
pH by SM4500-H+ B	Water	ASAP	Cool to <6°C
Total Dissolved Solids by SM2540C	Water	7 days from collection to analysis	Cool to <6°C
Chloride, Fluoride, and Sulfate by USEPA 300.0	Water	28 days from collection to analysis	Cool to <6°C

All samples were analyzed within the specified holding times.

2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

SDGs #92493129, 92493156, and 92499364: Analytes were not detected above the MDL in the associated blanks; therefore, detected sample results were not associated with blank contamination.

SDG #92497144: TDS was detected in the associated equipment blank; however, the associated sample results were greater than the BAL. No qualification of the sample results was required.

3. Matrix Spike/Matrix Spike Duplicate (MS/MSD)/Laboratory Duplicate Analysis

MS/MSD and laboratory duplicate data are used to assess the precision and accuracy of the analytical method.

3.1 MS/MSD Analysis

All analytes must exhibit a percent recovery within the established acceptance limits of 75% to 125%. The MS/MSD recovery control limits do not apply for MS/MSD performed on sample locations where the analyte's concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of four or greater. In instance where this is true, the data will not be qualified even if the percent recovery does not meet the control limits and the laboratory flag will be removed.

MS/MSD analysis was not performed using a sample from these SDGs.

3.2 Laboratory Duplicate Analysis

The laboratory duplicate relative percent difference (RPD) criterion is applied when parent and duplicate sample concentrations are greater than or equal to 5 times the RL. A control limit of 20% for water matrices is applied when the criteria above is true. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of one times the RL is applied for water matrices.

Laboratory duplicate analysis was not performed using a sample from these SDGs.

4. Field Duplicate Analysis

Field duplicate analysis is used to assess the overall precision of the field sampling procedures and analytical method. A control limit of 35% for water matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of two times the RL is applied for water matrices.

Results for duplicate samples are summarized in the following table.

Sample ID/Duplicate ID	Analyte	Sample Result	Duplicate Result	RPD
YGWC-46A (082820) / DUP-01 (082820)	TDS	838	844	0.7%
	Chloride	25.9	25.9	0.0%
	Fluoride	0.12	0.12	AC
	Sulfate	394	385	2.3%
YGWC-46A (092320) / DUP (092320)	TDS	832	832	0.0%
	Chloride	28.1	28.2	0.4%
	Fluoride	0.12	0.12	AC
	Sulfate	430	430	0.0%

Notes:

AC = Acceptable

The differences in the results between the parent sample YGWC-46A (082820) and field duplicate sample DUP-01 (082820) were acceptable.

The differences in the results between the parent sample YGWC-46A (092320) and field duplicate sample DUP (092320) were acceptable.

5. Laboratory Control Sample (LCS) Analysis

The LCS analysis is used to assess the accuracy of the analytical method independent of matrix interferences. The analytes associated with the LCS analysis must exhibit a percent recovery between the control limits of 80% and 120%.

The LCS analysis exhibited recoveries within the control limits.

6. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

DATA VALIDATION CHECKLIST FOR GENERAL CHEMISTRY

General Chemistry: SM4500-H+ B, SM2540C, USEPA 300.0	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
Miscellaneous Instrumentation					
Tier II Validation					
Holding times		X		X	
Reporting limits (units)		X		X	
Blanks					
A. Method Blanks		X		X	
B. Equipment blanks		X		X	
Laboratory Control Sample (LCS) %R		X		X	
Matrix Spike (MS) %R	X				X
Matrix Spike Duplicate (MSD) %R	X				X
MS/MSD Precision (RPD)	X				X
Field/Lab Duplicate (RPD)		X		X	
Dilution Factor		X		X	
Moisture Content	X				X

Notes:

%R Percent recovery

RPD Relative percent difference

RADIOLOGICAL ANALYSES

1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
Radium-226 by SW-846 9315	Water	180 days from collection to analysis	Preserved to a pH of less than 2 s.u.
Radium-228 by SW-846 9320	Water	180 days from collection to analysis	Preserved to a pH of less than 2 s.u.

Note:

s.u. = Standard units

All samples were analyzed within the specified holding times.

2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and field/rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Field/rinse blanks measure contamination of samples during field operations.

Blank results should be verified to be accurately reported and that tolerance limits (+/- 2 sigma or standard deviation) were not exceeded; and blank results verified to be less than the reporting limit (RL) of 1 pCi/L.

For blanks to be considered not applicable, verify net blank results are less than the associated uncertainty by evaluating the blank results based on the following three criteria. If either of these criteria is true, the blank is considered not suspect of contamination (or non-detect).

1. Is the blank result less than the uncertainty and less than the minimum detectable concentration (MDC)?
2. Does the blank have an uncertainty greater than the result (or indistinguishable from background) or does the blank result fall between its uncertainty and its MDC?

If the blank QC results fall outside the appropriate tolerance limits or if the net blank results are not less than the associated uncertainty, the following equation for normalized absolute difference (NAD) should be used in determining the effect of possible blank contamination on the sample results:

$$Normalized\ \ absolute\ difference_{\ MethodBlank} = \frac{|\ Sample\ -\ Blank\ |}{\sqrt{(U_{Sample}\ )^2 + (U_{Blank}\ )^2}}$$

Where:

U_{Sample} = uncertainty of the sample

U_{Blank} = uncertainty of the blank

Sample = concentration of isotope in sample

Blank = concentration of isotope in blank

Normalized Absolute Difference	Qualification
> 2.58	None
1.96 > x < 2.58	J
x < 1.96	J*

* = Minimally the result should be qualified as estimated, J; however, if other quality indicators are deficient the validator may determine the result should be qualified as rejected, R

Radium-228, Radium-226, and total Radium were detected in the QA blanks, however, the activities were measured as less than the uncertainty and MDC or between the uncertainty and MDC as described above. Hence, the blank results are considered non-detect and no qualification of the results was required.

3. Matrix Spike (MS)/Laboratory Duplicate Analysis

MS and laboratory duplicate data are used to assess the precision and accuracy of the analytical method.

3.1 MS Analysis

MS samples are not typically analyzed for gamma spectral content due to the inability of the laboratory to homogenize spike material with the sample.

If performed, the spike analysis must exhibit a percent recovery within the control limits of 70% to 130%. The MS recovery control limits do not apply for MS performed on sample locations where the analyte's concentration detected in the parent sample exceeds the MS concentration by a factor of four or greater. In instance where this is true, the data will not be qualified even if the percent recovery does not meet the control limits.

In the event the recovery is outside of this limit, a numerical indicator to make assessments is calculated, with a limit of < +/- 3 sigma for either.

The numerical performance indicator for a matrix spike sample is calculated by:

$$Z_{MS} = \frac{x - x_0 - c}{\sqrt{u^2(x) + u^2(x_0) + u^2(c)}}$$

Where:

x = measured concentration of the spiked sample.

x_0 = measured concentration of the unspiked sample.

c = spike concentration added.

$u^2(x)$, $u^2(x0)$, $u^2(c)$ = the squares of the respective standard uncertainties of these values.

MS performance for all matrices is acceptable when the numerical performance indicator calculation yields a value between +/-3 sigma. Warning limits have been established as +/- 2 sigma.

MS analysis was not performed using a sample from these SDGs.

3.2 Laboratory Duplicate Analysis

Duplicate analyses are indicators of laboratory precision based on each sample matrix. For replicate analysis results to be considered in agreement the duplicate error ratio (DER) must be less than 2.13. In the event the DER is outside of the limit of 2.13, a numerical indicator to make assessments is calculated, with a limit of +/- 3 sigma or standard deviation.

The numerical performance indicator for laboratory duplicates is calculated by:

$$Z_{Dup} = \frac{x_1 - x_2}{\sqrt{u^2(x_1) + u^2(x_2)}}$$

Where:

x_1, x_2 = two measured activity concentrations.

$u^2(x_1)$, $u^2(x_2)$ = the combined standard uncertainty of each measurement squared.

Duplicate sample performance is acceptable when the numerical performance indicator calculation yields a value between +/- 3 sigma. Warning limits have been established as +/- 2 sigma.

SDGs #92493135 and 92499363: Laboratory duplicate analysis was not performed using a sample from these SDGs.

SDG #92497110: The laboratory duplicate analysis performed using sample YGWA-47 (092220) in association with SW-846 9315 analysis exhibited acceptable differences between the results.

4. Field Duplicate Analysis

Field duplicate analysis is used to assess the overall precision of the field sampling procedures and analytical method. There are no specific review criteria for radiological field replicate analyses comparability. The degree of agreement between these replicates is to be used in conjunction with all of the remaining quality control results as an aid in the decision as to the overall quality of the data. Data are not to be qualified due to field replicates alone. To determine the level of agreement between the replicates, the following guidelines have been established:

For all analyses in soil matrices, data should be considered in agreement if results are within a factor of four of each other. Data between a factor of four and five of each other should be considered as a minor discrepancy and data greater than a factor of five should be considered a major discrepancy.

The field duplicate sample analysis is used to assess the overall precision of the field sampling procedures and analytical method. For results greater than five times the MDC, a control limit of 35 percent for water matrices is applied to the RPD between the parent and field duplicate sample results. If the parent and field duplicate sample results are less than five times the MDC, for water matrices a control limit of two times the MDC is applied to the difference between the results.

The field duplicate sample results are summarized in the following table.

Sample ID/Duplicate ID	Analyte	Sample Result	Duplicate Result	RPD
YGWC-46A / DUP-01 (082820)	Radium-226	0.587 ± 0.266	1.00 ± 0.359	AC
	Radium-228	1.75 ± 0.726	1.22 ± 0.647	
	Total Radium	2.34 ± 0.992	2.22 ± 1.01	
YGWC-46A (092320) / DUP (092320)	Radium-226	0.531 ± 0.362	0.565 ± 0.340	AC
	Radium-228	0.0444 ± 0.555	0.357 ± 0.858	
	Total Radium	0.575 ± 0.917	0.922 ± 1.20	

Notes:

AC = Acceptable

The differences in the results between the parent sample YGWA-46A and field duplicate sample DUP-01 (082820) were acceptable.

The differences in the results between the parent sample YGWC-46A (092320) and field duplicate sample DUP (092320) were acceptable.

5. Tracer or Carrier

Tracers and carriers are used in radiological separation methods to provide evaluation of chemical separation. Chemical yield is evaluated through the recovery of chemical species spiked into samples. Yield is evaluated radiometrically with a tracer and gravimetrically with a carrier. A control limit of 30% to110% is applied to each sample spiked with either a carrier and/or a tracer.

The tracer and carrier analyses exhibited recoveries within the control limits.

6. Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD) Analysis

The LCS/LCSD analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The analytes associated with the LCS/LCSD analysis must exhibit a percent recovery between the control limits of 60% to 135%. In the event the recovery is outside of this limit, a numerical indicator to make assessments is calculated, with a limit of +/- 3 sigma.

The numerical performance indicator for a laboratory control sample is calculated

by:

$$Z_{LCS} = \frac{x - c}{\sqrt{u^2(x) + u^2(c)}}$$

Where:

x = Analytical result of the LCS

c = Known concentration of the LCS

$u^2(x)$ = combined standard uncertainty of the result squared.

$u^2(c)$ = combined standard uncertainty of the LCS value squared.

LCS performance is acceptable when the numerical performance indicator calculation yields a value between +/- 3 sigma. Warning limits have been established as +/- 2 sigma.

The LCS/LCSD analysis exhibited recoveries within the control limits.

7. Isotope Identification

For sample results to be considered “non-detect”, evaluate data based on the following two criteria. If either one of these criteria is true, the sample result is considered “non-detect”.

1. Sample result is less than the uncertainty and less than the MDC/MDA; or
2. Sample has an uncertainty greater than the result (or indistinguishable from background) or result falls between its uncertainty and its MDC/MDA.

Based on the above criteria sample results should be considered non-detect as follows:

- SDG #92493135: YGWC-44 and YGWC-52; SDG #92497110: YGWA-47 (092220), YGWC-52 (092220), YGWC-44 (092220), YGWC-46A (092320). FIELD BLANK (092320), and EQUIPMENT BLANK (092320); SDG #92499363: YGWC-52 (100720) – Radium-226, Radium-228, and total Radium
- SDG #92493135: YGWC-45 and YGWA-47; SDG #92497110: YGWC-45 (092320), DUP (092320) – Radium-228 and total Radium
- SDG #92499363: YGWC-46A (100720) – Radium-228

8. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

DATA VALIDATION CHECKLIST FOR RADIOLOGICALS

RADIOLOGICALS: SW-846 9315/9320	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
Gas-Flow Proportional System					
Tier II Validation					
Holding Times		X		X	
Activity, +/- uncertainty, MDC/MDA		X		X	
Blanks					
A. Method Blanks		X		X	
B. Equipment/Field Blanks		X		X	
Carrier (Surrogate) %R		X		X	
Tracer (Surrogate) %R		X		X	
Laboratory Control Sample (LCS)		X		X	
Laboratory Control Sample Duplicate (LCSD)		X		X	
LCS/LCSD Precision (RPD)		X		X	
Matrix Spike (MS) %R	X				X
Matrix Spike Duplicate (MSD) %R	X				X
MS/MSD Precision (RPD)	X				X
Field/Lab Duplicate (RPD)		X		X	

Notes:

%R Percent recovery

RPD Relative percent difference

VALIDATION PERFORMED BY: Jennifer Singer

SIGNATURE: 

DATE: December 12, 2020

PEER REVIEW: Dennis Capria

DATE: December 14, 2020

CHAIN OF CUSTODY / DATA QUALIFIER SUMMARY TABLE

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CHAIN-OF-CUSTODY / Analytical Request Document

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Page : 1 Of 1

Section A
Required Client Information:
Company: Accadis (GA Power)
Address: 2839 Paces Ferry Rd
Suite 900, Atlanta, GA 30339
Email:
Phone: Fax:
Requested Due Date:

Section B
Required Project Information:
Report To: Becky Steever
Copy To:
Purchase Order #:
Project Name: Yates AP-1 App III
Project #:

Section C
Invoice Information:
Attention:
Company Name:
Address:
Pace Quote:
Pace Project Manager: kevin.herring@pacelabs.com,
Pace Profile #: 10560

Regulatory Agency:
State / Location: GA

Requested Analysis Filtered (Y/N)

SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analysis Test Y/N	TDS	Cl, F, SO4	B, Ca	Residual Chlorine (Y/N)
YGWC-46A (082820)	WT		8/28	1220				3	X		X							X	X	X	9249129
YGWC-52 (082720)	WT		8/27	1755				3	X		X							X	X	X	
DUP-01 (082820)			8/28	—				3	X		X							X	X	X	
EB-01 (082820)																					

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	Becky Steever/Accadis	8/28	1801	Pace	8/28/20	1814	

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: Becky Steever
SIGNATURE of SAMPLER: Becky Steever
DATE Signed: 8/28/20

TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

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Page : 1 Of 1

Section A
Required Client Information:
Company: Arcadis (GA Power)
Address: 2839 Paces Ferry Rd
Suite 900, Atlanta, GA 30339
Email:
Phone: | Fax
Requested Due Date:

Section B
Required Project Information:
Report To: Becky Steever
Copy To:
Purchase Order #:
Project Name: Yates AP-1 App IV
Project #:

Section C
Invoice Information:
Attention:
Company Name:
Address:
Pace Quote:
Pace Project Manager: kevin.herring@pacelabs.com,
Pace Profile #: 10840

Regulatory Agency
State / Location: GA

MATRIX / CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Other OT; Tissue TS

Requested Analysis Filtered (Y/N)

42149156

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	START TIME	END DATE	END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	300.0 - Fl[illegible]	App IV Metals	RAD 9315/9320	Fluoride	Mercury 7470A	Residual Chlorine (Y/N)	
1	YGWC-44	WT		8/27	~~1455~~ 1505				4										X	X	X	X	X		pH 7.05
2	YGWC-45	WT		8/28	1015				4										X	X	X	X	X		pH 6.84
3	YGWC-47 YGWA-47[KGS]	WT		8/27	1155				4										X	X	X	X	X		pH 4.88
4	YGWC-46A	WT		8/28	1220				3										X	X	X		X		pH 7.05
5	YGWC-52	WT		8/28	1205				3										X	X	X		X		pH 5.90
6	DUP-01 (082820)			8/28	–				3										X	X	X		X		pH —
7	~~EB-01 (082820)~~ RM			8/28																					
8																									
9																									
10																									
11																									
12																									

5.25

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
App IV Sb, As, Ba, Be, Cd, Cr, Co, Hg, Pb, Li, Mo, Se, Tl	Becky Steever / Arcadis	8/28/20	1814	[illegible] Pace	8/28/20	1814	
Fl included on 2nd COC for 46A & 52 (App III)							

* DUP-01 App IV metals unpreserved

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: Becky Steever
SIGNATURE of SAMPLER: [signature]
DATE Signed: 8/28/20

TEMP in C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

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CHAIN-OF-CUSTODY / Analytical Request Document

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Page : 1 Of 1

Section A — Required Client Information:
Company: Georgia Power
Address: 1070 Bridge Mill Ave
Marion, GA 30114
Email:
Phone: (770)384-6526 Fax:
Requested Due Date:

Section B — Required Project Information:
Report To: Becky Sleever
Copy To:
Purchase Order #:
Project Name: Yates AP-1
Project #:

Section C — Invoice Information:
Attention:
Company Name:
Address:
Pace Quote:
Pace Project Manager: kevin.herring@pacelabs.com
Pace Profile #: 10840

Regulatory Agency:
State / Location: GA

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	TDS	Anions	App III & IV Metals	RAD 9315/9320	Residual Chlorine (Y/N)	92497144
1	YGWA-47 (092220)	WT	G			9-22	10:15		5	X		X							x	x	x	x		pH: 5.46
2	YGWC-52 (092220)	WT	G			9-22	13:45		5	X		X							x	x	x	x		pH: 5.91
3	YGWC-44 (092220)	WT	G			9-22	16:48		5	X		X							x	x	x	x		pH: 5.53
4	YGWC-45 (092320)	WT	G			9-23	9:15		5	X		X							x	x	x	x		pH: 6.57
5	YGWC-45A (092320)	WT	G			9-23	11:05		5	X		X							x	x	x	x		6.81: pH
6	DUP (092320)	WT	G			9-23	—		5	X		X							x	x	x	x		1
7	FIELD BLANK (092320)	WT	G			9-23	9:00		5	X		X							x	x	x	x		1
8	EQUIPMENT BLANK (092320)	WT	G			9-23	10:35		5	X		X							x	x	x	x		1
9																								
10																								
11																								
12																								

Matrix Codes: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Other OT; Tissue TS

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
Se, Tl, Cd - no analysis	Katie Pupkiewicz	9/23/20	1740	Charles Hunt	9/23/20	1740	

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: Katie Pupkiewicz
SIGNATURE of SAMPLER: Katie Pupkiewicz DATE Signed: 9/23/2020

SAMPLE CONDITIONS: TEMP in C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page : 1 Of 1

Section A — Required Client Information:		Section B — Required Project Information:		Section C — Invoice Information:	
Company:	Georgia Power	Report To:	Kelley Sharpe	Attention:	
Address:	2839 Paces Ferry Rd	Copy To:		Company Name:	
	Atlanta, GA 30339			Address:	
Email:	kelley.sharpe@arcadis.com	Purchase Order #:		Pace Quote:	
Phone:	(770)384-6584 Fax	Project Name:	Yates AP-1	Pace Project Manager	kevin.herring@pacelabs.com,
Requested Due Date:		Project #:		Pace Profile #:	10840

Regulatory Agency:

State / Location: GA

MATRIX / CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Other OT; Tissue TS

SAMPLE ID — One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	App III & IV Metals	Cl, F, SO4	TDS	RAD 9315/9320	Residual Chlorine (Y/N)	92499364
1	YGWC-46A (100720)	WT		10/7	1120														X	X	X	X		
2	YGWC-52 (100720)	WT		10/7	1055														X	X	X	X		
3																								
4																								
5																								
6																								
7																								
8																								
9																								
10																								
11																								
12																								

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
	B. Steever / Arcadis	10/7/20		Claude [illegible]	10/7/20	1743	3.1	Y	N	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Becky Steever

SIGNATURE of SAMPLER: [signature]

DATE Signed: 10/7/20

SDG	Sample ID	Method	Analyte	Result	Units	Validation Qualifier	Reason for Validation Qualifier
92493129	No qualifiers assigned						
92493135	No qualifiers assigned						
92493156	No qualifiers assigned						
92497110	No qualifiers assigned						
92497144	YGWA-47 (092220)	SW846 6020B	Boron	0.10	mg/L	UB	Blank contamination
92499363	No qualifiers assigned						
92499364	No qualifiers assigned						

Abbreviations:
mg/L = milligrams per liter

Qualifiers:
UB = not detected due to blank contamination

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
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September 09, 2020

Ms. Lauren Petty
Southern Co. Services
42 Inverness Center Parkway
Birmingham, AL 35242

RE: Project: YATES AP-1 APP III
Pace Project No.: 92493129

Dear Ms. Petty:

Enclosed are the analytical results for sample(s) received by the laboratory on August 28, 2020. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Asheville
- Pace Analytical Services - Peachtree Corners, GA

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

Sincerely,

Kevin Herring
kevin.herring@pacelabs.com
1(704)875-9092
HORIZON Database Administrator

Enclosures

cc: Joju Abraham, Georgia Power-CCR
Geoffrey Gay, ARCADIS - Atlanta
Kristen Jurinko
Kelley Sharpe, ARCADIS - Atlanta
Alex Simpson, Arcadis
Samantha Thomas

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CERTIFICATIONS

Project: YATES AP-1 APP III
Pace Project No.: 92493129

Pace Analytical Services Asheville
2225 Riverside Drive, Asheville, NC 28804
Florida/NELAP Certification #: E87648
Massachusetts Certification #: M-NC030
North Carolina Drinking Water Certification #: 37712
North Carolina Wastewater Certification #: 40
South Carolina Certification #: 99030001
Virginia/VELAP Certification #: 460222

Pace Analytical Services Peachtree Corners
110 Technology Pkwy, Peachtree Corners, GA 30092
Florida DOH Certification #: E87315
Georgia DW Inorganics Certification #: 812
Georgia DW Microbiology Certification #: 812
North Carolina Certification #: 381
South Carolina Certification #: 98011001
Virginia Certification #: 460204

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: YATES AP-1 APP III
Pace Project No.: 92493129

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92493129001	**YGWC-46A (082820)**	Water	08/28/20 12:20	08/28/20 18:14
92493129002	**YGWC-52 (082720)**	Water	08/27/20 17:55	08/28/20 18:14
92493129003	**DUP-01 (082820)**	Water	08/28/20 00:00	08/28/20 18:14

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SAMPLE ANALYTE COUNT

Project: YATES AP-1 APP III
Pace Project No.: 92493129

Lab ID	Sample ID	Method	Analysts	Analytes Reported
92493129001	**YGWC-46A (082820)**	EPA 6010D	DRB	1
		EPA 6020B	CW1	1
		SM 2450C-2011	ALW	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92493129002	**YGWC-52 (082720)**	EPA 6010D	DRB	1
		EPA 6020B	CW1	1
		SM 2450C-2011	ALW	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92493129003	**DUP-01 (082820)**	EPA 6010D	DRB	1
		EPA 6020B	CW1	1
		SM 2450C-2011	JRS	1
		EPA 300.0 Rev 2.1 1993	CDC	3

PASI-A = Pace Analytical Services - Asheville
PASI-GA = Pace Analytical Services - Peachtree Corners, GA

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SUMMARY OF DETECTION

Project: YATES AP-1 APP III
Pace Project No.: 92493129

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92493129001	**YGWC-46A (082820)**					
EPA 6010D	Calcium	102	mg/L	1.0	09/01/20 12:21	M1
EPA 6020B	Boron	1.8	mg/L	0.10	09/01/20 21:53	
SM 2450C-2011	Total Dissolved Solids	838	mg/L	10.0	08/31/20 18:04	
EPA 300.0 Rev 2.1 1993	Chloride	25.9	mg/L	1.0	09/01/20 15:05	
EPA 300.0 Rev 2.1 1993	Fluoride	0.12	mg/L	0.10	09/01/20 15:05	
EPA 300.0 Rev 2.1 1993	Sulfate	394	mg/L	8.0	09/01/20 20:05	
92493129002	**YGWC-52 (082720)**					
EPA 6010D	Calcium	52.3	mg/L	1.0	09/01/20 12:39	
EPA 6020B	Boron	0.014J	mg/L	0.10	09/02/20 15:39	
SM 2450C-2011	Total Dissolved Solids	349	mg/L	10.0	08/31/20 18:04	
EPA 300.0 Rev 2.1 1993	Chloride	3.9	mg/L	1.0	09/01/20 15:46	
EPA 300.0 Rev 2.1 1993	Sulfate	144	mg/L	3.0	09/01/20 20:20	
92493129003	**DUP-01 (082820)**					
EPA 6010D	Calcium	101	mg/L	1.0	09/01/20 12:43	
EPA 6020B	Boron	1.9	mg/L	0.10	09/02/20 16:02	
SM 2450C-2011	Total Dissolved Solids	844	mg/L	10.0	09/01/20 18:39	
EPA 300.0 Rev 2.1 1993	Chloride	25.9	mg/L	1.0	09/01/20 15:59	
EPA 300.0 Rev 2.1 1993	Fluoride	0.12	mg/L	0.10	09/01/20 15:59	
EPA 300.0 Rev 2.1 1993	Sulfate	385	mg/L	8.0	09/01/20 20:35	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: YATES AP-1 APP III
Pace Project No.: 92493129

Sample: YGWC-46A (082820) **Lab ID: 92493129001** Collected: 08/28/20 12:20 Received: 08/28/20 18:14 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**102**	mg/L	1.0	0.070	1	08/31/20 17:24	09/01/20 12:21	7440-70-2	M1
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Boron	**1.8**	mg/L	0.10	0.0052	1	09/01/20 14:03	09/01/20 21:53	7440-42-8	
2540C Total Dissolved Solids	Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**838**	mg/L	10.0	10.0	1		08/31/20 18:04		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**25.9**	mg/L	1.0	0.60	1		09/01/20 15:05	16887-00-6	
Fluoride	**0.12**	mg/L	0.10	0.050	1		09/01/20 15:05	16984-48-8	
Sulfate	**394**	mg/L	8.0	4.0	8		09/01/20 20:05	14808-79-8	

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ANALYTICAL RESULTS

Project: YATES AP-1 APP III
Pace Project No.: 92493129

Sample: YGWC-52 (082720) **Lab ID: 92493129002** Collected: 08/27/20 17:55 Received: 08/28/20 18:14 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**52.3**	mg/L	1.0	0.070	1	08/31/20 17:24	09/01/20 12:39	7440-70-2	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Boron	**0.014J**	mg/L	0.10	0.0052	1	09/01/20 14:06	09/02/20 15:39	7440-42-8	
2540C Total Dissolved Solids	Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**349**	mg/L	10.0	10.0	1		08/31/20 18:04		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**3.9**	mg/L	1.0	0.60	1		09/01/20 15:46	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		09/01/20 15:46	16984-48-8	
Sulfate	**144**	mg/L	3.0	1.5	3		09/01/20 20:20	14808-79-8	

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ANALYTICAL RESULTS

Project: YATES AP-1 APP III
Pace Project No.: 92493129

Sample: DUP-01 (082820) **Lab ID: 92493129003** Collected: 08/28/20 00:00 Received: 08/28/20 18:14 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**101**	mg/L	1.0	0.070	1	08/31/20 17:24	09/01/20 12:43	7440-70-2	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Boron	**1.9**	mg/L	0.10	0.0052	1	09/01/20 14:06	09/02/20 16:02	7440-42-8	
2540C Total Dissolved Solids	Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**844**	mg/L	10.0	10.0	1		09/01/20 18:39		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**25.9**	mg/L	1.0	0.60	1		09/01/20 15:59	16887-00-6	
Fluoride	**0.12**	mg/L	0.10	0.050	1		09/01/20 15:59	16984-48-8	
Sulfate	**385**	mg/L	8.0	4.0	8		09/01/20 20:35	14808-79-8	

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QUALITY CONTROL DATA

Project: YATES AP-1 APP III
Pace Project No.: 92493129

QC Batch: 563496
QC Batch Method: EPA 3010A
Analysis Method: EPA 6010D
Analysis Description: 6010D ATL
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92493129001, 92493129002, 92493129003

METHOD BLANK: 2987753 Matrix: Water
Associated Lab Samples: 92493129001, 92493129002, 92493129003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.070	09/01/20 12:08	

LABORATORY CONTROL SAMPLE: 2987754

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	0.90J	90	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2987755 2987756

Parameter	Units	92493129001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Calcium	mg/L	102	1	1	101	105	-70	318	75-125	4	20	M1

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QUALITY CONTROL DATA

Project: YATES AP-1 APP III
Pace Project No.: 92493129

QC Batch: 563747
QC Batch Method: EPA 3005A
Analysis Method: EPA 6020B
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92493129001

METHOD BLANK: 2988642 Matrix: Water
Associated Lab Samples: 92493129001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron	mg/L	ND	0.10	0.0052	09/01/20 19:19	

LABORATORY CONTROL SAMPLE: 2988643

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	mg/L	1	0.93	93	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2988644 2988645

Parameter	Units	92492563004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	mg/L	0.69	1	1	1.6	1.6	88	91	75-125	2	20	

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QUALITY CONTROL DATA

Project: YATES AP-1 APP III
Pace Project No.: 92493129

QC Batch: 563754
QC Batch Method: EPA 3005A
Analysis Method: EPA 6020B
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92493129002, 92493129003

METHOD BLANK: 2988660 Matrix: Water
Associated Lab Samples: 92493129002, 92493129003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Boron	mg/L	ND	0.10	0.0052	09/02/20 15:28	

LABORATORY CONTROL SAMPLE: 2988661

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	mg/L	1	0.99	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2988662 2988663

Parameter	Units	92493129002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Boron	mg/L	0.014J	1	1	0.93	0.98	92	96	75-125	5	20	

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QUALITY CONTROL DATA

Project: YATES AP-1 APP III
Pace Project No.: 92493129

QC Batch: 563552
QC Batch Method: SM 2450C-2011
Analysis Method: SM 2450C-2011
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92493129001, 92493129002

METHOD BLANK: 2988051 Matrix: Water
Associated Lab Samples: 92493129001, 92493129002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	08/31/20 17:59	

LABORATORY CONTROL SAMPLE: 2988052

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	397	99	84-108	

SAMPLE DUPLICATE: 2988053

Parameter	Units	92492424001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	246	252	2	10	

SAMPLE DUPLICATE: 2988054

Parameter	Units	92492418006 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	ND	ND		10	

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QUALITY CONTROL DATA

Project: YATES AP-1 APP III
Pace Project No.: 92493129

QC Batch: 563879
QC Batch Method: SM 2450C-2011
Analysis Method: SM 2450C-2011
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92493129003

METHOD BLANK: 2989346 Matrix: Water
Associated Lab Samples: 92493129003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	09/01/20 18:36	

LABORATORY CONTROL SAMPLE: 2989347

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	401	100	84-108	

SAMPLE DUPLICATE: 2989348

Parameter	Units	92493162001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	372	384	3	10	

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QUALITY CONTROL DATA

Project: YATES AP-1 APP III
Pace Project No.: 92493129

QC Batch: 563652
QC Batch Method: EPA 300.0 Rev 2.1 1993
Analysis Method: EPA 300.0 Rev 2.1 1993
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92493129001, 92493129002, 92493129003

METHOD BLANK: 2988345 Matrix: Water
Associated Lab Samples: 92493129001, 92493129002, 92493129003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	09/01/20 13:04	
Fluoride	mg/L	ND	0.10	0.050	09/01/20 13:04	
Sulfate	mg/L	ND	1.0	0.50	09/01/20 13:04	

LABORATORY CONTROL SAMPLE: 2988346

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	50.2	100	90-110	
Fluoride	mg/L	2.5	2.5	100	90-110	
Sulfate	mg/L	50	50.6	101	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2988347 2988348

Parameter	Units	92492918001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	12.1	50	50	60.9	61.3	98	98	90-110	1	10	
Fluoride	mg/L	ND	2.5	2.5	2.6	2.6	103	103	90-110	0	10	
Sulfate	mg/L	ND	50	50	49.1	49.4	98	99	90-110	1	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2988349 2988350

Parameter	Units	92493137003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	20.0	50	50	69.2	69.3	98	99	90-110	0	10	
Fluoride	mg/L	ND	2.5	2.5	2.7	2.7	108	110	90-110	1	10	
Sulfate	mg/L	196	50	50	238	238	85	85	90-110	0	10	M1

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

REPORT OF LABORATORY ANALYSIS

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110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALIFIERS

Project: YATES AP-1 APP III
Pace Project No.: 92493129

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - 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.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

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

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

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: YATES AP-1 APP III
Pace Project No.: 92493129

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92493129001	**YGWC-46A (082820)**	EPA 3010A	563496	EPA 6010D	563571
92493129002	**YGWC-52 (082720)**	EPA 3010A	563496	EPA 6010D	563571
92493129003	**DUP-01 (082820)**	EPA 3010A	563496	EPA 6010D	563571
92493129001	**YGWC-46A (082820)**	EPA 3005A	563747	EPA 6020B	563831
92493129002	**YGWC-52 (082720)**	EPA 3005A	563754	EPA 6020B	563832
92493129003	**DUP-01 (082820)**	EPA 3005A	563754	EPA 6020B	563832
92493129001	**YGWC-46A (082820)**	SM 2450C-2011	563552		
92493129002	**YGWC-52 (082720)**	SM 2450C-2011	563552		
92493129003	**DUP-01 (082820)**	SM 2450C-2011	563879		
92493129001	**YGWC-46A (082820)**	EPA 300.0 Rev 2.1 1993	563652		
92493129002	**YGWC-52 (082720)**	EPA 300.0 Rev 2.1 1993	563652		
92493129003	**DUP-01 (082820)**	EPA 300.0 Rev 2.1 1993	563652		

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Sample Condition Upon Receipt

Pace Analytical

Client Name: GA Power

WO# : 92493129

92493129

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☑ Client ☐ Commercial ☐ Pace Othe

Tracking #: _____

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

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☑ None ☐ Other _____

Thermometer Used 214 Type of Ice: Wet Blue None ☐ Samples on ice, cooling process has begun

Cooler Temperature 4.1 Biological Tissue is Frozen: Yes No

Temp should be above freezing to 6°C

Comments:

Date and Initials of person examining contents: 5/29/2014

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

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

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____ **Date:** _____

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

F-ALLC003rev 3, 11September2006

Pace Analytical	Document Name: Bottle Identification Form (BIF)	Document Issued: March 14, 2019 Page 1 of 1
	Document No.: F-CAR-CS-043-Rev.00	Issuing Authority: Pace Carolinas Quality Office

•Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.

Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC, LLHg

••Bottom half of box is to list number of bottle

Project # **WO#: 92493129**

PM: KLH1 Due Date: 09/14/20

CLIENT: GA-GA Power

Matrix	Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP3N-250 mL Plastic ZN Acetate & NaOH (>9)	BP4Z-125 mL Plastic NaOH (pH > 12) (Cl-)	BP4C-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass Jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG3U-250 mL Amber H2SO4 (pH < 2)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	AG3A(DG3A)-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unp (N/A)	DG9P-40 mL VOA H3PO4 (N/A)	VOAK (6 vials per kit)-5035 kit (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A – lab)	SP2T-250 mL Sterile Plastic (N/A – lab)		BP3A-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved vials (N/A)
	1		—	—			—	—																						
	2		—	—			—	—																						
	3		—	—			—	—																						
	4																													
	5																													
	6																													
	7																													
	8																													
	9																													
	10																													
	11																													
	12																													

pH Adjustment Log for Preserved Samples

Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certifica

Out of hold, incorrect preservative, out of temp, incorrect containers

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page : 1 Of 1

Section A
Required Client Information:
Company: Accadis (GA Power)
Address: 2839 Paces Ferry Rd
Suite 900, Atlanta, GA 30339
Email:
Phone: Fax:
Requested Due Date:

Section B
Required Project Information:
Report To: Becky Steever
Copy To:
Purchase Order #:
Project Name: Yates AP-1 App III
Project #:

Section C
Invoice Information:
Attention:
Company Name:
Address:
Pace Quote:
Pace Project Manager: kevin.herring@pacelabs.com,
Pace Profile #: 10560

Regulatory Agency:
State / Location: GA

Requested Analysis Filtered (Y/N)

SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analysis Test Y/N	TDS	Cl, F, SO4	B, Ca	Residual Chlorine (Y/N)	9249129
YGWC-46A (082820)	WT		8/28	1220				3	X		X							X	X	X		
YGWC-52 (082720)	WT		8/27	1755				3	X		X							X	X	X		
DUP-01 (082820)			8/28	—				3	X		X							X	X	X		
EB-01 (082820)																						

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	Becky Steever/ACCADIS	8/29	1801	Pace	8/29/20	1814	

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER:
SIGNATURE of SAMPLER:
DATE Signed: 8/28/20

TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

October 30, 2020

Ms. Lauren Petty
Southern Co. Services
42 Inverness Center Parkway
Birmingham, AL 35242

RE: Project: YATES AP-1 APP IV RADS
Pace Project No.: 92493135

Dear Ms. Petty:

Enclosed are the analytical results for sample(s) received by the laboratory on August 28, 2020. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Greensburg

This report was revised 10/6/20 to correct a sample ID error made in the field, and include revised COC.

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

Sincerely,

Kevin Herring
kevin.herring@pacelabs.com
1(704)875-9092
HORIZON Database Administrator

Enclosures

cc: Joju Abraham, Georgia Power-CCR
Geoffrey Gay, ARCADIS - Atlanta
Kristen Jurinko
Kelley Sharpe, ARCADIS - Atlanta
Alex Simpson, Arcadis
Samantha Thomas
Maribel Vital

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CERTIFICATIONS

Project: YATES AP-1 APP IV RADS
Pace Project No.: 92493135

Pace Analytical Services Pennsylvania
1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
Delaware Certification
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Florida: Cert E871149 SEKS WET
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA180012
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: 2017020
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572018-1
New Hampshire/TNI Certification #: 297617
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-010
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: 02867
Texas/TNI Certification #: T104704188-17-3
Utah/TNI Certification #: PA014572017-9
USDA Soil Permit #: P330-17-00091
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 9526
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad
Wyoming Certification #: 8TMS-L

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SAMPLE SUMMARY

Project: YATES AP-1 APP IV RADS
Pace Project No.: 92493135

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92493135001	**YGWC-44**	Water	08/27/20 15:05	08/28/20 18:14
92493135002	**YGWC-45**	Water	08/28/20 10:15	08/28/20 18:14
92493135003	**YGWA-47**	Water	08/27/20 11:55	08/28/20 18:14
92493135004	**YGWC-46A**	Water	08/28/20 12:20	08/28/20 18:14
92493135005	**YGWC-52**	Water	08/27/20 17:55	08/28/20 18:14
92493135006	**DUP-01 (082820)**	Water	08/28/20 00:00	08/28/20 18:14

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SAMPLE ANALYTE COUNT

Project: YATES AP-1 APP IV RADS
Pace Project No.: 92493135

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92493135001	**YGWC-44**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92493135002	**YGWC-45**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92493135003	**YGWA-47**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92493135004	**YGWC-46A**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92493135005	**YGWC-52**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92493135006	**DUP-01 (082820)**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA

PASI-PA = Pace Analytical Services - Greensburg

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SUMMARY OF DETECTION

Project: YATES AP-1 APP IV RADS
Pace Project No.: 92493135

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92493135001	**YGWC-44**					
EPA 9315	Radium-226	0.0859 ± 0.182 (0.424) C:76% T:NA	pCi/L		09/14/20 08:47	
EPA 9320	Radium-228	-0.297 ± 0.384 (0.970) C:62% T:77%	pCi/L		09/16/20 14:43	
Total Radium Calculation	Total Radium	0.0859 ± 0.566 (1.39)	pCi/L		09/17/20 11:28	
92493135002	**YGWC-45**					
EPA 9315	Radium-226	0.764 ± 0.293 (0.275) C:87% T:NA	pCi/L		09/14/20 08:47	
EPA 9320	Radium-228	0.219 ± 0.479 (1.06) C:59% T:81%	pCi/L		09/16/20 14:43	
Total Radium Calculation	Total Radium	0.983 ± 0.772 (1.34)	pCi/L		09/17/20 11:28	
92493135003	**YGWA-47**					
EPA 9315	Radium-226	0.409 ± 0.220 (0.279) C:82% T:NA	pCi/L		09/14/20 08:56	
EPA 9320	Radium-228	0.848 ± 0.615 (1.19) C:61% T:66%	pCi/L		09/16/20 14:43	
Total Radium Calculation	Total Radium	1.26 ± 0.835 (1.47)	pCi/L		09/17/20 11:28	
92493135004	**YGWC-46A**					
EPA 9315	Radium-226	0.587 ± 0.266 (0.325) C:89% T:NA	pCi/L		09/14/20 08:56	
EPA 9320	Radium-228	1.75 ± 0.726 (1.18) C:58% T:78%	pCi/L		09/16/20 14:44	
Total Radium Calculation	Total Radium	2.34 ± 0.992 (1.51)	pCi/L		09/17/20 11:28	

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: YATES AP-1 APP IV RADS
Pace Project No.: 92493135

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92493135005	**YGWC-52**					
EPA 9315	Radium-226	0.0651 ± 0.146 (0.345) C:87% T:NA	pCi/L		09/14/20 08:56	
EPA 9320	Radium-228	0.787 ± 0.598 (1.18) C:57% T:79%	pCi/L		09/16/20 14:44	
Total Radium Calculation	Total Radium	0.852 ± 0.744 (1.53)	pCi/L		09/17/20 11:28	
92493135006	**DUP-01 (082820)**					
EPA 9315	Radium-226	1.00 ± 0.359 (0.417) C:89% T:NA	pCi/L		09/14/20 08:57	
EPA 9320	Radium-228	1.22 ± 0.647 (1.16) C:59% T:74%	pCi/L		09/16/20 14:44	
Total Radium Calculation	Total Radium	2.22 ± 1.01 (1.58)	pCi/L		09/17/20 11:28	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: YATES AP-1 APP IV RADS
Pace Project No.: 92493135

Sample: YGWC-44 **Lab ID: 92493135001** Collected: 08/27/20 15:05 Received: 08/28/20 18:14 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	**0.0859 ± 0.182 (0.424) C:76% T:NA**	pCi/L	09/14/20 08:47	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**-0.297 ± 0.384 (0.970) C:62% T:77%**	pCi/L	09/16/20 14:43	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.0859 ± 0.566 (1.39)**	pCi/L	09/17/20 11:28	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: YATES AP-1 APP IV RADS
Pace Project No.: 92493135

Sample: YGWC-45 **Lab ID: 92493135002** Collected: 08/28/20 10:15 Received: 08/28/20 18:14 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	**0.764 ± 0.293 (0.275) C:87% T:NA**	pCi/L	09/14/20 08:47	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.219 ± 0.479 (1.06) C:59% T:81%**	pCi/L	09/16/20 14:43	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.983 ± 0.772 (1.34)**	pCi/L	09/17/20 11:28	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: YATES AP-1 APP IV RADS
Pace Project No.: 92493135

Sample: YGWA-47 **Lab ID: 92493135003** Collected: 08/27/20 11:55 Received: 08/28/20 18:14 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	**0.409 ± 0.220 (0.279) C:82% T:NA**	pCi/L	09/14/20 08:56	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.848 ± 0.615 (1.19) C:61% T:66%**	pCi/L	09/16/20 14:43	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.26 ± 0.835 (1.47)**	pCi/L	09/17/20 11:28	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: YATES AP-1 APP IV RADS
Pace Project No.: 92493135

Sample: YGWC-46A **Lab ID: 92493135004** Collected: 08/28/20 12:20 Received: 08/28/20 18:14 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	**0.587 ± 0.266 (0.325) C:89% T:NA**	pCi/L	09/14/20 08:56	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**1.75 ± 0.726 (1.18) C:58% T:78%**	pCi/L	09/16/20 14:44	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**2.34 ± 0.992 (1.51)**	pCi/L	09/17/20 11:28	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: YATES AP-1 APP IV RADS
Pace Project No.: 92493135

Sample: YGWC-52 **Lab ID: 92493135005** Collected: 08/27/20 17:55 Received: 08/28/20 18:14 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	**0.0651 ± 0.146 (0.345) C:87% T:NA**	pCi/L	09/14/20 08:56	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.787 ± 0.598 (1.18) C:57% T:79%**	pCi/L	09/16/20 14:44	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.852 ± 0.744 (1.53)**	pCi/L	09/17/20 11:28	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: YATES AP-1 APP IV RADS
Pace Project No.: 92493135

Sample: DUP-01 (082820) **Lab ID: 92493135006** Collected: 08/28/20 00:00 Received: 08/28/20 18:14 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	**1.00 ± 0.359 (0.417) C:89% T:NA**	pCi/L	09/14/20 08:57	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**1.22 ± 0.647 (1.16) C:59% T:74%**	pCi/L	09/16/20 14:44	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**2.22 ± 1.01 (1.58)**	pCi/L	09/17/20 11:28	7440-14-4	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: YATES AP-1 APP IV RADS
Pace Project No.: 92493135

QC Batch: 412347 Analysis Method: EPA 9320
QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 92493135001, 92493135002, 92493135003, 92493135004, 92493135005, 92493135006

METHOD BLANK: 1994502 Matrix: Water
Associated Lab Samples: 92493135001, 92493135002, 92493135003, 92493135004, 92493135005, 92493135006

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.314 ± 0.487 (1.05) C:61% T:69%	pCi/L	09/16/20 14:42	

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: YATES AP-1 APP IV RADS
Pace Project No.: 92493135

QC Batch: 412358 Analysis Method: EPA 9315
QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 92493135001, 92493135002, 92493135003, 92493135004, 92493135005, 92493135006

METHOD BLANK: 1994517 Matrix: Water
Associated Lab Samples: 92493135001, 92493135002, 92493135003, 92493135004, 92493135005, 92493135006

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0557 ± 0.119 (0.278) C:90% T:NA	pCi/L	09/14/20 08:58	

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

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: YATES AP-1 APP IV RADS
Pace Project No.: 92493135

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - 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.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

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.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: YATES AP-1 APP IV RADS
Pace Project No.: 92493135

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92493135001	**YGWC-44**	EPA 9315	412358		
92493135002	**YGWC-45**	EPA 9315	412358		
92493135003	**YGWA-47**	EPA 9315	412358		
92493135004	**YGWC-46A**	EPA 9315	412358		
92493135005	**YGWC-52**	EPA 9315	412358		
92493135006	**DUP-01 (082820)**	EPA 9315	412358		
92493135001	**YGWC-44**	EPA 9320	412347		
92493135002	**YGWC-45**	EPA 9320	412347		
92493135003	**YGWA-47**	EPA 9320	412347		
92493135004	**YGWC-46A**	EPA 9320	412347		
92493135005	**YGWC-52**	EPA 9320	412347		
92493135006	**DUP-01 (082820)**	EPA 9320	412347		
92493135001	**YGWC-44**	Total Radium Calculation	414382		
92493135002	**YGWC-45**	Total Radium Calculation	414382		
92493135003	**YGWA-47**	Total Radium Calculation	414382		
92493135004	**YGWC-46A**	Total Radium Calculation	414382		
92493135005	**YGWC-52**	Total Radium Calculation	414382		
92493135006	**DUP-01 (082820)**	Total Radium Calculation	414382		

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Sample Condition Upon Receipt

Pace Analytical

Client Name: GA Power

WO# : 92493135

92493135

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 214 Type of Ice: (Wet) Blue None ☐ Samples on ice, cooling process has begun

Cooler Temperature 4.1 Biological Tissue is Frozen: Yes No

Temp should be above freezing to 6°C

Date and Initials of person examining contents: 5/28/2014

Comments:

Chain of Custody Present:	☑Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☑Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☑Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☑Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☑Yes ☐No ☐N/A	5.
Short Hold Time Analysis (<72hr):	☐Yes ☑No ☐N/A	6.
Rush Turn Around Time Requested:	☐Yes ☑No ☐N/A	7.
Sufficient Volume:	☑Yes ☐No ☐N/A	8.
Correct Containers Used:	☑Yes ☐No ☐N/A	9.
-Pace Containers Used:	☑Yes ☐No ☐N/A	
Containers Intact:	☑Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☑N/A	11.
Sample Labels match COC:	☑Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix: W		
All containers needing preservation have been checked.	☑Yes ☐No ☐N/A	13. Dup-01 Met3 pH adj 7->2 CH 5/28/14
All containers needing preservation are found to be in compliance with EPA recommendation.	☐Yes ☑No ☐N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	☐Yes ☑No	Initial when completed CH Lot # of added preservative 072720-2EIZ
Samples checked for dechlorination:	☐Yes ☐No ☑N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes ☐No ☑N/A	15.
Trip Blank Present:	☐Yes ☐No ☑N/A	16.
Trip Blank Custody Seals Present	☐Yes ☐No ☑N/A	
Pace Trip Blank Lot # (if purchased): _____		

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

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____ **Date:** _____

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

F-ALLC003rev.3, 11September2006

Pace Analytical

Document Name: Bottle Identification Form (BIF)	Document Issued: March 14, 2019 Page 1 of 1
Document No.: F-CAR-CS-043-Rev.00	Issuing Authority: Pace Carolinas Quality Office

Project # **WO# : 92493135**

PM: KLH1 Due Date: 09/14/20

CLIENT: GA-GA Power

*Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.

Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC, LLHg

**Bottom half of box is to list number of bottle

Matrix	Item#	EP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	EP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4C-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	AG3A(DG3A)-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unp (N/A)	DG9P-40 mL VOA H3PO4 (N/A)	VOAK (6 vials per kit)-5035 kit (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A – lab)	SP2T-250 mL Sterile Plastic (N/A – lab)	BP	BP3A-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved vials (N/A)
	1		1				1	1																		2		
	2		1				1	1																		2		
	3		1				1	1																		2		
	4						1	1									1									2		
	5						1	1																		2		
	6						1	1																		2		
	7																											
	8																											
	9																											
	10																											
	11																											
	12																											

pH Adjustment Log for Preserved Samples

Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added
Dup-01	HNO3	7	8/28/20	1820	2.5ml 072720-2E

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certifica

Out of hold, Incorrect preservative, out of temp, incorrect containers.

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page : 1 Of 1

Section A
Required Client Information:
Company: Arcadis (GA Power)
Address: 2839 Paces Ferry Rd
Suite 900, Atlanta, GA 30339
Email:
Phone: Fax
Requested Due Date:

Section B
Required Project Information:
Report To: Becky Steever
Copy To:
Purchase Order #:
Project Name: Yates AP-1 App IV
Project #:

Section C
Invoice Information:
Attention:
Company Name:
Address:
Pace Quote:
Pace Project Manager: kevin.herring@pacelabs.com,
Pace Profile #: 10840

Regulatory Agency
State / Location: GA

SAMPLE ID
One Character per box.
(A-Z, 0-9 / , -)
Sample Ids must be unique

MATRIX	CODE
Drinking Water	DW
Water	WT
Waste Water	WW
Product	P
Soil/Solid	SL
Oil	OL
Wipe	WP
Air	AR
Other	OT
Tissue	TS

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	START TIME	END DATE	END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	300.0 - Fluoride	App IV Metals	RAD 9315/9320 *	Fluoride	Mercury 7470A	Residual Chlorine (Y/N)	92490135
1	YGWC-44	WT		8/27	~~1455~~ 1505				4									X	X	X		X		pH ~~7.05~~ 5.75
2	YGWC-45	WT		8/28	1015				4									X	X	X		X		pH 6.84
3	YGWC-47 YGWA-47 KGS	WT		8/27	1455				4									X	X	X		X		pH 4.88
4	YGWC-46A	WT		8/28	1220				3									X	X	X		X		pH 7.05
5	YGWC-52	WT		8/28	1705				3									X	X	X		X		pH 5.90
6	DUP-01 (082820)			8/20	-				3									X	X	X		X		pH
7	~~EB-01 (082820)~~ Rej			8/28																				
8																								
9																								
10																								
11																								
12																								

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
*IV Sb, As, Ba, Be, Cd, Cr, Co, Hg, Pb, Li, Mo, Se, Tl	Becky Steever / Arcadis	8/28/20	1814	[illegible] / Pace	8/28/20	1814	
Included on 2nd COC for 46A & 52 (App III)							

* DUP-01 App IV metals unpreserved

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: Becky Steever
SIGNATURE of SAMPLER: [signature]
DATE Signed: 08/28/20

TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

Quality Control Sample Performance Assessment

Pace Analytical™
www.pacelabs.com

Test: Ra-226
Analyst: LAL
Date: 9/11/2020
Worklist: 55961
Matrix: DW

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	1994517
MB concentration:	0.056
M/B Counting Uncertainty:	0.118
MB MDC:	0.278
MB Numerical Performance Indicator:	0.92
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	N
	LCS55961	LCSD55961
Count Date:	9/14/2020	
Spike I.D.:	19-033	
Decay Corrected Spike Concentration (pCi/mL):	24.044	
Volume Used (mL):	0.10	
Aliquot Volume (L, g, F):	0.522	
Target Conc. (pCi/L, g, F):	4.609	
Uncertainty (Calculated):	0.055	
Result (pCi/L, g, F):	4.395	
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.589	
Numerical Performance Indicator:	-0.71	
Percent Recovery:	95.35%	
Status vs Numerical Indicator:	N/A	
Status vs Recovery:	Pass	
Upper % Recovery Limits:	125%	
Lower % Recovery Limits:	75%	

Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
Sample Collection Date:		
Sample I.D.		
Sample MS I.D.		
Sample MSD I.D.		
Spike I.D.:		
MS/MSD Decay Corrected Spike Concentration (pCi/mL):		
Spike Volume Used in MS (mL):		
Spike Volume Used in MSD (mL):		
MS Aliquot (L, g, F):		
MS Target Conc.(pCi/L, g, F):		
MSD Aliquot (L, g, F):		
MSD Target Conc. (pCi/L, g, F):		
MS Spike Uncertainty (calculated):		
MSD Spike Uncertainty (calculated):		
Sample Result:		
Sample Result Counting Uncertainty (pCi/L, g, F):		
Sample Matrix Spike Result:		
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):		
Sample Matrix Spike Duplicate Result:		
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):		
MS Numerical Performance Indicator:		
MSD Numerical Performance Indicator:		
MS Percent Recovery:		
MSD Percent Recovery:		
MS Status vs Numerical Indicator:		
MSD Status vs Numerical Indicator:		
MS Status vs Recovery:		
MSD Status vs Recovery:		
MS/MSD Upper % Recovery Limits:		
MS/MSD Lower % Recovery Limits:		

Duplicate Sample Assessment		
Sample I.D.:	92492413011	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.	92492413011DUP	
Sample Result (pCi/L, g, F):	0.357	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.211	
Sample Duplicate Result (pCi/L, g, F):	0.265	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.184	
Are sample and/or duplicate results below RL?	See Below ##	
Duplicate Numerical Performance Indicator:	0.647	92492413011
Duplicate RPD:	29.70%	92492413011DUP
Duplicate Status vs Numerical Indicator:	N/A	
Duplicate Status vs RPD:	Fail***	
% RPD Limit:	25%	

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

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

Comments:

~~***Batch must be re-prepped due to unacceptable precision.~~ N/A
LAM 9/14/2020

QAM 9/14/2020

LAM 9/14/2020

Quality Control Sample Performance Assessment

Pace Analytical™ www.pacelabs.com

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test:	Ra-226
Analyst:	LAL
Date:	9/11/2020
Worklist:	55961
Matrix:	DW

Method Blank Assessment	
MB Sample ID	1994517
MB concentration:	0.056
M/B Counting Uncertainty:	0.118
MB MDC:	0.278
MB Numerical Performance Indicator:	0.92
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	N
	LCS55961	LCSD55961
Count Date:	9/14/2020	
Spike I.D.:	19-033	
Decay Corrected Spike Concentration (pCi/mL):	24.044	
Volume Used (mL):	0.10	
Aliquot Volume (L, g, F):	0.522	
Target Conc. (pCi/L, g, F):	4.609	
Uncertainty (Calculated):	0.055	
Result (pCi/L, g, F):	4.395	
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.589	
Numerical Performance Indicator:	-0.71	
Percent Recovery:	95.35%	
Status vs Numerical Indicator:	N/A	
Status vs Recovery:	Pass	
Upper % Recovery Limits:	125%	
Lower % Recovery Limits:	75%	

Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
Sample Collection Date:		
Sample I.D.		
Sample MS I.D.		
Sample MSD I.D.		
Spike I.D.:		
MS/MSD Decay Corrected Spike Concentration (pCi/mL):		
Spike Volume Used in MS (mL):		
Spike Volume Used in MSD (mL):		
MS Aliquot (L, g, F):		
MS Target Conc.(pCi/L, g, F):		
MSD Aliquot (L, g, F):		
MSD Target Conc. (pCi/L, g, F):		
MS Spike Uncertainty (calculated):		
MSD Spike Uncertainty (calculated):		
Sample Result:		
Sample Result Counting Uncertainty (pCi/L, g, F):		
Sample Matrix Spike Result:		
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):		
Sample Matrix Spike Duplicate Result:		
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):		
MS Numerical Performance Indicator:		
MSD Numerical Performance Indicator:		
MS Percent Recovery:		
MSD Percent Recovery:		
MS Status vs Numerical Indicator:		
MSD Status vs Numerical Indicator:		
MS Status vs Recovery:		
MSD Status vs Recovery:		
MS/MSD Upper % Recovery Limits:		
MS/MSD Lower % Recovery Limits:		

Duplicate Sample Assessment		
Sample I.D.:	92492413010	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.	92492413010DUP	
Sample Result (pCi/L, g, F):	0.313	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.192	
Sample Duplicate Result (pCi/L, g, F):	0.186	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.181	
Are sample and/or duplicate results below RL?	See Below ##	
Duplicate Numerical Performance Indicator:	0.939	92492413010
Duplicate RPD:	50.74%	92492413010DUP
Duplicate Status vs Numerical Indicator:	N/A	
Duplicate Status vs RPD:	Fail***	
% RPD Limit:	25%	

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

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

Comments:

~~***Batch must be re-prepped due to unacceptable precision.~~ N/A

9/14/2020

LAM 9/14/2020

Quality Control Sample Performance Assessment

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test:	Ra-228
Analyst:	VAL
Date:	9/10/2020
Worklist:	55956
Matrix:	WT

Method Blank Assessment	
MB Sample ID	1994502
MB concentration:	0.314
M/B 2 Sigma CSU:	0.487
MB MDC:	1.054
MB Numericel Performance Indicator:	1.26
MB Status vs Numerical Indicator:	Pass
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	Y
	LCS55956	LCSD55956
Count Date:	9/16/2020	9/16/2020
Spike I.D.:	20-030	20-030
Decay Corrected Spike Concentration (pCi/mL):	38.382	38.382
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.813	0.814
Target Conc. (pCi/L, g, F):	4.719	4.715
Uncertainty (Calculated):	0.231	0.231
Result (pCi/L, g, F):	5.086	5.348
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	1.251	1.293
Numerical Performance Indicator:	0.57	0.94
Percent Recovery:	107.78%	113.43%
Status vs Numerical Indicator:	N/A	N/A
Status vs Recovery:	Pass	Pass
Upper % Recovery Limits:	135%	135%
Lower % Recovery Limits:	60%	60%

Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
Sample Collection Date:		
Sample I.D.		
Sample MS I.D.		
Sample MSD I.D.		
Spike I.D.:		
MS/MSD Decay Corrected Spike Concentration (pCi/mL):		
Spike Volume Used in MS (mL):		
Spike Volume Used in MSD (mL):		
MS Aliquot (L, g, F):		
MS Target Conc.(pCi/L, g, F):		
MSD Aliquot (L, g, F):		
MSD Target Conc. (pCi/L, g, F):		
MS Spike Uncertainty (calculated):		
MSD Spike Uncertainty (calculated):		
Sample Result:		
Sample Result 2 Sigma CSU (pCi/L, g, F):		
Sample Matrix Spike Result:		
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):		
Sample Matrix Spike Duplicate Result:		
Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):		
MS Numerical Performance Indicator:		
MSD Numerical Performance Indicator:		
MS Percent Recovery:		
MSD Percent Recovery:		
MS Status vs Numerical Indicator:		
MSD Status vs Numerical Indicator:		
MS Status vs Recovery:		
MSD Status vs Recovery:		
MS/MSD Upper % Recovery Limits:		
MS/MSD Lower % Recovery Limits:		

Duplicate Sample Assessment		
Sample I.D.:	LCS55956	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.	LCSD55956	
Sample Result (pCi/L, g, F):	5.086	
Sample Result 2 Sigma CSU (pCi/L, g, F):	1.251	
Sample Duplicate Result (pCi/L, g, F):	5.348	
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	1.293	
Are sample and/or duplicate results below RL?	NO	
Duplicate Numerical Performance Indicator:	-0.285	
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	5.11%	
Duplicate Status vs Numerical Indicator:	Pass	
Duplicate Status vs RPD:	Pass	
% RPD Limit:	36%	

Matrix Spike/Matrix Spike Duplicate Sample Assessment		
Sample I.D.		
Sample MS I.D.		
Sample MSD I.D.		
Sample Matrix Spike Result:		
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):		
Sample Matrix Spike Duplicate Result:		
Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):		
Duplicate Numerical Performance Indicator:		
(Based on the Percent Recoveries) MS/ MSD Duplicate RPD:		
MS/ MSD Duplicate Status vs Numerical Indicator:		
MS/ MSD Duplicate Status vs RPD:		
% RPD Limit:		

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

Comments:

9-17-20

9.17.20

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

October 06, 2020

Ms. Lauren Petty
Southern Co. Services
42 Inverness Center Parkway
Birmingham, AL 35242

RE: Project: YATES AP-1 APP III & IV
Pace Project No.: 92493156

Dear Ms. Petty:

Enclosed are the analytical results for sample(s) received by the laboratory on August 28, 2020. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Asheville
- Pace Analytical Services - Charlotte
- Pace Analytical Services - Peachtree Corners, GA

This report was revised 10/6/20 to correct a sample ID error made in the field, and include revised COC.

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

Sincerely,

Kevin Herring
kevin.herring@pacelabs.com
1(704)875-9092
HORIZON Database Administrator

Enclosures

cc: Joju Abraham, Georgia Power-CCR
Geoffrey Gay, ARCADIS - Atlanta
Kristen Jurinko
Kelley Sharpe, ARCADIS - Atlanta
Alex Simpson, Arcadis
Samantha Thomas
Maribel Vital

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CERTIFICATIONS

Project: YATES AP-1 APP III & IV
Pace Project No.: 92493156

Pace Analytical Services Charlotte
9800 Kincey Ave. Ste 100, Huntersville, NC 28078
Louisiana/NELAP Certification # LA170028
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12
South Carolina Certification #: 99006001
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
Virginia/VELAP Certification #: 460221

Pace Analytical Services Asheville
2225 Riverside Drive, Asheville, NC 28804
Florida/NELAP Certification #: E87648
Massachusetts Certification #: M-NC030
North Carolina Drinking Water Certification #: 37712
North Carolina Wastewater Certification #: 40
South Carolina Certification #: 99030001
Virginia/VELAP Certification #: 460222

Pace Analytical Services Peachtree Corners
110 Technology Pkwy, Peachtree Corners, GA 30092
Florida DOH Certification #: E87315
Georgia DW Inorganics Certification #: 812
Georgia DW Microbiology Certification #: 812
North Carolina Certification #: 381
South Carolina Certification #: 98011001
Virginia Certification #: 460204

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SAMPLE SUMMARY

Project: YATES AP-1 APP III & IV
Pace Project No.: 92493156

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92493156001	**YGWC-44**	Water	08/27/20 15:05	08/28/20 18:14
92493156002	**YGWC-45**	Water	08/28/20 10:15	08/28/20 18:14
92493156003	**YGWA-47**	Water	08/27/20 11:55	08/28/20 18:14
92493156004	**YGWC-46A**	Water	08/28/20 12:20	08/28/20 18:14
92493156005	**YGWC-52**	Water	08/27/20 17:55	08/28/20 18:14
92493156006	**DUP-01 (082820)**	Water	08/28/20 00:00	08/28/20 18:14

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SAMPLE ANALYTE COUNT

Project: YATES AP-1 APP III & IV
Pace Project No.: 92493156

Lab ID	Sample ID	Method	Analysts	Analytes Reported
92493156001	**YGWC-44**	EPA 6020B	CW1	12
		EPA 7470A	VB	1
		EPA 300.0 Rev 2.1 1993	CDC	1
92493156002	**YGWC-45**	EPA 6020B	CW1	12
		EPA 7470A	VB	1
		EPA 300.0 Rev 2.1 1993	CDC	1
92493156003	**YGWA-47**	EPA 6020B	CW1	12
		EPA 7470A	VB	1
		EPA 300.0 Rev 2.1 1993	CDC	1
92493156004	**YGWC-46A**	EPA 6010D	KH	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92493156005	**YGWC-52**	EPA 6010D	KH	1
		EPA 6020B	CW1	12
		EPA 7470A	VB	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92493156006	**DUP-01 (082820)**	EPA 6010D	KH	1
		EPA 6020B	CW1	12
		EPA 7470A	VB	1
		EPA 300.0 Rev 2.1 1993	CDC	3

PASI-A = Pace Analytical Services - Asheville
PASI-C = Pace Analytical Services - Charlotte
PASI-GA = Pace Analytical Services - Peachtree Corners, GA

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SUMMARY OF DETECTION

Project: YATES AP-1 APP III & IV
Pace Project No.: 92493156

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92493156001	**YGWC-44**					
	pH	5.75	Std. Units		09/09/20 14:36	
EPA 6020B	Barium	0.086	mg/L	0.010	08/31/20 14:59	
EPA 6020B	Cobalt	0.0030J	mg/L	0.0050	08/31/20 14:59	
EPA 6020B	Lithium	0.013J	mg/L	0.030	08/31/20 14:59	
92493156002	**YGWC-45**					
	pH	6.84	Std. Units		09/09/20 14:36	
EPA 6020B	Antimony	0.0017J	mg/L	0.0030	08/31/20 15:22	
EPA 6020B	Barium	0.053	mg/L	0.010	08/31/20 15:22	
EPA 6020B	Cobalt	0.00055J	mg/L	0.0050	08/31/20 15:22	
EPA 6020B	Lithium	0.012J	mg/L	0.030	08/31/20 15:22	
EPA 6020B	Molybdenum	0.0013J	mg/L	0.010	08/31/20 15:22	
EPA 300.0 Rev 2.1 1993	Fluoride	0.070J	mg/L	0.10	09/01/20 19:22	
92493156003	**YGWA-47**					
	pH	4.88	Std. Units		09/09/20 14:36	
EPA 6020B	Antimony	0.00048J	mg/L	0.0030	08/31/20 15:28	
EPA 6020B	Barium	0.027	mg/L	0.010	08/31/20 15:28	
EPA 6020B	Beryllium	0.000047J	mg/L	0.0030	08/31/20 15:28	
EPA 6020B	Cobalt	0.0011J	mg/L	0.0050	08/31/20 15:28	
EPA 6020B	Lithium	0.0039J	mg/L	0.030	08/31/20 15:28	
92493156004	**YGWC-46A**					
	pH	7.05	Std. Units		09/09/20 14:36	
EPA 6010D	Calcium	102	mg/L	1.0	09/01/20 12:21	
EPA 6020B	Antimony	0.00029J	mg/L	0.0030	08/31/20 15:34	
EPA 6020B	Arsenic	0.0015J	mg/L	0.0050	08/31/20 15:34	
EPA 6020B	Barium	0.050	mg/L	0.010	08/31/20 15:34	
EPA 6020B	Boron	1.9	mg/L	0.10	08/31/20 15:34	
EPA 6020B	Cobalt	0.0038J	mg/L	0.0050	08/31/20 15:34	
EPA 6020B	Lithium	0.012J	mg/L	0.030	08/31/20 15:34	
EPA 6020B	Molybdenum	0.0030J	mg/L	0.010	08/31/20 15:34	
EPA 300.0 Rev 2.1 1993	Chloride	25.9	mg/L	1.0	09/01/20 15:05	
EPA 300.0 Rev 2.1 1993	Fluoride	0.12	mg/L	0.10	09/01/20 15:05	
EPA 300.0 Rev 2.1 1993	Sulfate	394	mg/L	8.0	09/01/20 20:05	
92493156005	**YGWC-52**					
	pH	5.80	Std. Units		09/09/20 14:36	
EPA 6010D	Calcium	52.3	mg/L	1.0	09/01/20 12:39	
EPA 6020B	Barium	0.021	mg/L	0.010	08/31/20 15:39	
EPA 6020B	Cobalt	0.0022J	mg/L	0.0050	08/31/20 15:39	
EPA 6020B	Lead	0.000092J	mg/L	0.0050	08/31/20 15:39	
EPA 6020B	Lithium	0.0048J	mg/L	0.030	08/31/20 15:39	
EPA 300.0 Rev 2.1 1993	Chloride	3.9	mg/L	1.0	09/01/20 15:46	
EPA 300.0 Rev 2.1 1993	Sulfate	144	mg/L	3.0	09/01/20 20:20	
92493156006	**DUP-01 (082820)**					
EPA 6010D	Calcium	101	mg/L	1.0	09/01/20 12:43	
EPA 6020B	Arsenic	0.0013J	mg/L	0.0050	08/31/20 15:57	

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(770)734-4200

SUMMARY OF DETECTION

Project: YATES AP-1 APP III & IV
Pace Project No.: 92493156

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92493156006	**DUP-01 (082820)**					
EPA 6020B	Barium	0.048	mg/L	0.010	08/31/20 15:57	
EPA 6020B	Chromium	0.00066J	mg/L	0.010	08/31/20 15:57	
EPA 6020B	Cobalt	0.0036J	mg/L	0.0050	08/31/20 15:57	
EPA 6020B	Lead	0.00022J	mg/L	0.0050	08/31/20 15:57	
EPA 6020B	Lithium	0.011J	mg/L	0.030	08/31/20 15:57	
EPA 6020B	Molybdenum	0.0029J	mg/L	0.010	08/31/20 15:57	
EPA 300.0 Rev 2.1 1993	Chloride	25.9	mg/L	1.0	09/01/20 15:59	
EPA 300.0 Rev 2.1 1993	Fluoride	0.12	mg/L	0.10	09/01/20 15:59	
EPA 300.0 Rev 2.1 1993	Sulfate	385	mg/L	8.0	09/01/20 20:35	

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ANALYTICAL RESULTS

Project: YATES AP-1 APP III & IV
Pace Project No.: 92493156

Sample: YGWC-44 **Lab ID: 92493156001** Collected: 08/27/20 15:05 Received: 08/28/20 18:14 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
pH	**5.75**	Std. Units			1		09/09/20 14:36		
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00028	1	08/31/20 12:10	08/31/20 14:59	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	08/31/20 12:10	08/31/20 14:59	7440-38-2	
Barium	**0.086**	mg/L	0.010	0.00071	1	08/31/20 12:10	08/31/20 14:59	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000046	1	08/31/20 12:10	08/31/20 14:59	7440-41-7	
Cadmium	ND	mg/L	0.0025	0.00012	1	08/31/20 12:10	08/31/20 14:59	7440-43-9	
Chromium	ND	mg/L	0.010	0.00055	1	08/31/20 12:10	08/31/20 14:59	7440-47-3	
Cobalt	**0.0030J**	mg/L	0.0050	0.00038	1	08/31/20 12:10	08/31/20 14:59	7440-48-4	
Lead	ND	mg/L	0.0050	0.000036	1	08/31/20 12:10	08/31/20 14:59	7439-92-1	
Lithium	**0.013J**	mg/L	0.030	0.00081	1	08/31/20 12:10	08/31/20 14:59	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	08/31/20 12:10	08/31/20 14:59	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	08/31/20 12:10	08/31/20 14:59	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	08/31/20 12:10	08/31/20 14:59	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00050	0.000078	1	08/31/20 12:00	08/31/20 15:42	7439-97-6	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Fluoride	ND	mg/L	0.10	0.050	1		09/01/20 19:08	16984-48-8	

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(770)734-4200

ANALYTICAL RESULTS

Project: YATES AP-1 APP III & IV
Pace Project No.: 92493156

Sample: YGWC-45 **Lab ID: 92493156002** Collected: 08/28/20 10:15 Received: 08/28/20 18:14 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
pH	**6.84**	Std. Units			1		09/09/20 14:36		
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	**0.0017J**	mg/L	0.0030	0.00028	1	08/31/20 12:10	08/31/20 15:22	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	08/31/20 12:10	08/31/20 15:22	7440-38-2	
Barium	**0.053**	mg/L	0.010	0.00071	1	08/31/20 12:10	08/31/20 15:22	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000046	1	08/31/20 12:10	08/31/20 15:22	7440-41-7	
Cadmium	ND	mg/L	0.0025	0.00012	1	08/31/20 12:10	08/31/20 15:22	7440-43-9	
Chromium	ND	mg/L	0.010	0.00055	1	08/31/20 12:10	08/31/20 15:22	7440-47-3	
Cobalt	**0.00055J**	mg/L	0.0050	0.00038	1	08/31/20 12:10	08/31/20 15:22	7440-48-4	
Lead	ND	mg/L	0.0050	0.000036	1	08/31/20 12:10	08/31/20 15:22	7439-92-1	
Lithium	**0.012J**	mg/L	0.030	0.00081	1	08/31/20 12:10	08/31/20 15:22	7439-93-2	
Molybdenum	**0.0013J**	mg/L	0.010	0.00069	1	08/31/20 12:10	08/31/20 15:22	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	08/31/20 12:10	08/31/20 15:22	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	08/31/20 12:10	08/31/20 15:22	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00050	0.000078	1	08/31/20 12:00	08/31/20 15:44	7439-97-6	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Fluoride	**0.070J**	mg/L	0.10	0.050	1		09/01/20 19:22	16984-48-8	

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ANALYTICAL RESULTS

Project: YATES AP-1 APP III & IV
Pace Project No.: 92493156

Sample: YGWA-47 **Lab ID: 92493156003** Collected: 08/27/20 11:55 Received: 08/28/20 18:14 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
pH	**4.88**	Std. Units			1		09/09/20 14:36		
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	**0.00048J**	mg/L	0.0030	0.00028	1	08/31/20 12:10	08/31/20 15:28	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	08/31/20 12:10	08/31/20 15:28	7440-38-2	
Barium	**0.027**	mg/L	0.010	0.00071	1	08/31/20 12:10	08/31/20 15:28	7440-39-3	
Beryllium	**0.000047J**	mg/L	0.0030	0.000046	1	08/31/20 12:10	08/31/20 15:28	7440-41-7	
Cadmium	ND	mg/L	0.0025	0.00012	1	08/31/20 12:10	08/31/20 15:28	7440-43-9	
Chromium	ND	mg/L	0.010	0.00055	1	08/31/20 12:10	08/31/20 15:28	7440-47-3	
Cobalt	**0.0011J**	mg/L	0.0050	0.00038	1	08/31/20 12:10	08/31/20 15:28	7440-48-4	
Lead	ND	mg/L	0.0050	0.000036	1	08/31/20 12:10	08/31/20 15:28	7439-92-1	
Lithium	**0.0039J**	mg/L	0.030	0.00081	1	08/31/20 12:10	08/31/20 15:28	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	08/31/20 12:10	08/31/20 15:28	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	08/31/20 12:10	08/31/20 15:28	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	08/31/20 12:10	08/31/20 15:28	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00050	0.000078	1	08/31/20 12:00	08/31/20 15:59	7439-97-6	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Fluoride	ND	mg/L	0.10	0.050	1		09/01/20 19:35	16984-48-8	

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ANALYTICAL RESULTS

Project: YATES AP-1 APP III & IV
Pace Project No.: 92493156

Sample: YGWC-46A **Lab ID: 92493156004** Collected: 08/28/20 12:20 Received: 08/28/20 18:14 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
pH	**7.05**	Std. Units			1		09/09/20 14:36		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**102**	mg/L	1.0	0.070	1	08/31/20 17:24	09/01/20 12:21	7440-70-2	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	**0.00029J**	mg/L	0.0030	0.00028	1	08/31/20 12:10	08/31/20 15:34	7440-36-0	
Arsenic	**0.0015J**	mg/L	0.0050	0.00078	1	08/31/20 12:10	08/31/20 15:34	7440-38-2	
Barium	**0.050**	mg/L	0.010	0.00071	1	08/31/20 12:10	08/31/20 15:34	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000046	1	08/31/20 12:10	08/31/20 15:34	7440-41-7	
Boron	**1.9**	mg/L	0.10	0.0052	1	08/31/20 12:10	08/31/20 15:34	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00012	1	08/31/20 12:10	08/31/20 15:34	7440-43-9	
Chromium	ND	mg/L	0.010	0.00055	1	08/31/20 12:10	08/31/20 15:34	7440-47-3	
Cobalt	**0.0038J**	mg/L	0.0050	0.00038	1	08/31/20 12:10	08/31/20 15:34	7440-48-4	
Lead	ND	mg/L	0.0050	0.000036	1	08/31/20 12:10	08/31/20 15:34	7439-92-1	
Lithium	**0.012J**	mg/L	0.030	0.00081	1	08/31/20 12:10	08/31/20 15:34	7439-93-2	
Molybdenum	**0.0030J**	mg/L	0.010	0.00069	1	08/31/20 12:10	08/31/20 15:34	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	08/31/20 12:10	08/31/20 15:34	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	08/31/20 12:10	08/31/20 15:34	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00050	0.000078	1	08/31/20 12:00	08/31/20 16:01	7439-97-6	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**25.9**	mg/L	1.0	0.60	1		09/01/20 15:05	16887-00-6	
Fluoride	**0.12**	mg/L	0.10	0.050	1		09/01/20 15:05	16984-48-8	
Sulfate	**394**	mg/L	8.0	4.0	8		09/01/20 20:05	14808-79-8	

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ANALYTICAL RESULTS

Project: YATES AP-1 APP III & IV
Pace Project No.: 92493156

Sample: YGWC-52 **Lab ID: 92493156005** Collected: 08/27/20 17:55 Received: 08/28/20 18:14 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
pH	**5.80**	Std. Units			1		09/09/20 14:36		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**52.3**	mg/L	1.0	0.070	1	08/31/20 17:24	09/01/20 12:39	7440-70-2	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00028	1	08/31/20 12:10	08/31/20 15:39	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	08/31/20 12:10	08/31/20 15:39	7440-38-2	
Barium	**0.021**	mg/L	0.010	0.00071	1	08/31/20 12:10	08/31/20 15:39	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000046	1	08/31/20 12:10	08/31/20 15:39	7440-41-7	
Cadmium	ND	mg/L	0.0025	0.00012	1	08/31/20 12:10	08/31/20 15:39	7440-43-9	
Chromium	ND	mg/L	0.010	0.00055	1	08/31/20 12:10	08/31/20 15:39	7440-47-3	
Cobalt	**0.0022J**	mg/L	0.0050	0.00038	1	08/31/20 12:10	08/31/20 15:39	7440-48-4	
Lead	**0.000092J**	mg/L	0.0050	0.000036	1	08/31/20 12:10	08/31/20 15:39	7439-92-1	
Lithium	**0.0048J**	mg/L	0.030	0.00081	1	08/31/20 12:10	08/31/20 15:39	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	08/31/20 12:10	08/31/20 15:39	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	08/31/20 12:10	08/31/20 15:39	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	08/31/20 12:10	08/31/20 15:39	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00050	0.000078	1	08/31/20 12:00	08/31/20 16:03	7439-97-6	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**3.9**	mg/L	1.0	0.60	1		09/01/20 15:46	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		09/01/20 15:46	16984-48-8	
Sulfate	**144**	mg/L	3.0	1.5	3		09/01/20 20:20	14808-79-8	

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ANALYTICAL RESULTS

Project: YATES AP-1 APP III & IV
Pace Project No.: 92493156

Sample: DUP-01 (082820) **Lab ID: 92493156006** Collected: 08/28/20 00:00 Received: 08/28/20 18:14 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**101**	mg/L	1.0	0.070	1	08/31/20 17:24	09/01/20 12:43	7440-70-2	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00028	1	08/31/20 12:10	08/31/20 15:57	7440-36-0	
Arsenic	**0.0013J**	mg/L	0.0050	0.00078	1	08/31/20 12:10	08/31/20 15:57	7440-38-2	
Barium	**0.048**	mg/L	0.010	0.00071	1	08/31/20 12:10	08/31/20 15:57	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000046	1	08/31/20 12:10	08/31/20 15:57	7440-41-7	
Cadmium	ND	mg/L	0.0025	0.00012	1	08/31/20 12:10	08/31/20 15:57	7440-43-9	
Chromium	**0.00066J**	mg/L	0.010	0.00055	1	08/31/20 12:10	08/31/20 15:57	7440-47-3	
Cobalt	**0.0036J**	mg/L	0.0050	0.00038	1	08/31/20 12:10	08/31/20 15:57	7440-48-4	
Lead	**0.00022J**	mg/L	0.0050	0.000036	1	08/31/20 12:10	08/31/20 15:57	7439-92-1	
Lithium	**0.011J**	mg/L	0.030	0.00081	1	08/31/20 12:10	08/31/20 15:57	7439-93-2	
Molybdenum	**0.0029J**	mg/L	0.010	0.00069	1	08/31/20 12:10	08/31/20 15:57	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	08/31/20 12:10	08/31/20 15:57	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	08/31/20 12:10	08/31/20 15:57	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00050	0.000078	1	08/31/20 12:00	08/31/20 16:06	7439-97-6	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**25.9**	mg/L	1.0	0.60	1		09/01/20 15:59	16887-00-6	
Fluoride	**0.12**	mg/L	0.10	0.050	1		09/01/20 15:59	16984-48-8	
Sulfate	**385**	mg/L	8.0	4.0	8		09/01/20 20:35	14808-79-8	

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QUALITY CONTROL DATA

Project: YATES AP-1 APP III & IV
Pace Project No.: 92493156

QC Batch: 563496
QC Batch Method: EPA 3010A
Analysis Method: EPA 6010D
Analysis Description: 6010D ATL
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92493156004, 92493156005, 92493156006

METHOD BLANK: 2987753 Matrix: Water
Associated Lab Samples: 92493156004, 92493156005, 92493156006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.070	09/01/20 12:08	

LABORATORY CONTROL SAMPLE: 2987754

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	0.90J	90	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2987755 2987756

Parameter	Units	92493129001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Calcium	mg/L	102	1	1	101	105	-70	318	75-125	4	20	M1

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QUALITY CONTROL DATA

Project: YATES AP-1 APP III & IV
Pace Project No.: 92493156

QC Batch: 563435
QC Batch Method: EPA 3005A
Analysis Method: EPA 6020B
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92493156001, 92493156002, 92493156003, 92493156004, 92493156005, 92493156006

METHOD BLANK: 2987502 Matrix: Water
Associated Lab Samples: 92493156001, 92493156002, 92493156003, 92493156004, 92493156005, 92493156006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00028	08/31/20 14:48	
Arsenic	mg/L	ND	0.0050	0.00078	08/31/20 14:48	
Barium	mg/L	ND	0.010	0.00071	08/31/20 14:48	
Beryllium	mg/L	ND	0.0030	0.000046	08/31/20 14:48	
Cadmium	mg/L	ND	0.0025	0.00012	08/31/20 14:48	
Chromium	mg/L	ND	0.010	0.00055	08/31/20 14:48	
Cobalt	mg/L	ND	0.0050	0.00038	08/31/20 14:48	
Lead	mg/L	ND	0.0050	0.000036	08/31/20 14:48	
Lithium	mg/L	ND	0.030	0.00081	08/31/20 14:48	
Molybdenum	mg/L	ND	0.010	0.00069	08/31/20 14:48	
Selenium	mg/L	ND	0.010	0.0016	08/31/20 14:48	
Thallium	mg/L	ND	0.0010	0.00014	08/31/20 14:48	

LABORATORY CONTROL SAMPLE: 2987503

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.097	97	80-120	
Arsenic	mg/L	0.1	0.096	96	80-120	
Barium	mg/L	0.1	0.095	95	80-120	
Beryllium	mg/L	0.1	0.096	96	80-120	
Cadmium	mg/L	0.1	0.097	97	80-120	
Chromium	mg/L	0.1	0.099	99	80-120	
Cobalt	mg/L	0.1	0.097	97	80-120	
Lead	mg/L	0.1	0.10	101	80-120	
Lithium	mg/L	0.1	0.098	98	80-120	
Molybdenum	mg/L	0.1	0.095	95	80-120	
Selenium	mg/L	0.1	0.094	94	80-120	
Thallium	mg/L	0.1	0.10	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2987504 2987505

Parameter	Units	92493156001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	mg/L	ND	0.1	0.1	0.096	0.097	95	97	75-125	2	20	
Arsenic	mg/L	ND	0.1	0.1	0.097	0.097	96	96	75-125	0	20	
Barium	mg/L	0.086	0.1	0.1	0.18	0.18	95	95	75-125	0	20	
Beryllium	mg/L	ND	0.1	0.1	0.096	0.095	96	95	75-125	1	20	

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QUALITY CONTROL DATA

Project: YATES AP-1 APP III & IV
Pace Project No.: 92493156

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2987504 2987505

Parameter	Units	92493156001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Cadmium	mg/L	ND	0.1	0.1	0.094	0.096	94	96	75-125	2	20	
Chromium	mg/L	ND	0.1	0.1	0.099	0.10	99	103	75-125	5	20	
Cobalt	mg/L	0.0030J	0.1	0.1	0.097	0.10	94	100	75-125	5	20	
Lead	mg/L	ND	0.1	0.1	0.10	0.10	105	101	75-125	4	20	
Lithium	mg/L	0.013J	0.1	0.1	0.11	0.11	99	98	75-125	2	20	
Molybdenum	mg/L	ND	0.1	0.1	0.095	0.096	95	95	75-125	1	20	
Selenium	mg/L	ND	0.1	0.1	0.094	0.095	94	95	75-125	1	20	
Thallium	mg/L	ND	0.1	0.1	0.10	0.10	104	100	75-125	4	20	

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QUALITY CONTROL DATA

Project: YATES AP-1 APP III & IV
Pace Project No.: 92493156

QC Batch: 563439 | Analysis Method: EPA 7470A
QC Batch Method: EPA 7470A | Analysis Description: 7470 Mercury
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92493156001, 92493156002, 92493156003, 92493156004, 92493156005, 92493156006

METHOD BLANK: 2987518 Matrix: Water
Associated Lab Samples: 92493156001, 92493156002, 92493156003, 92493156004, 92493156005, 92493156006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00050	0.000078	08/31/20 15:37	

LABORATORY CONTROL SAMPLE: 2987519

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.0025	0.0025	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2987521 2987520

Parameter	Units	92493156002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	mg/L	ND	0.0025	0.0025	0.0023	0.0024	93	96	75-125	3	20	

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QUALITY CONTROL DATA

Project: YATES AP-1 APP III & IV
Pace Project No.: 92493156

QC Batch: 563652
QC Batch Method: EPA 300.0 Rev 2.1 1993
Analysis Method: EPA 300.0 Rev 2.1 1993
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92493156001, 92493156002, 92493156003, 92493156004, 92493156005, 92493156006

METHOD BLANK: 2988345 Matrix: Water
Associated Lab Samples: 92493156001, 92493156002, 92493156003, 92493156004, 92493156005, 92493156006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	09/01/20 13:04	
Fluoride	mg/L	ND	0.10	0.050	09/01/20 13:04	
Sulfate	mg/L	ND	1.0	0.50	09/01/20 13:04	

LABORATORY CONTROL SAMPLE: 2988346

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	50.2	100	90-110	
Fluoride	mg/L	2.5	2.5	100	90-110	
Sulfate	mg/L	50	50.6	101	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2988347 2988348

Parameter	Units	92492918001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	12.1	50	50	60.9	61.3	98	98	90-110	1	10	
Fluoride	mg/L	ND	2.5	2.5	2.6	2.6	103	103	90-110	0	10	
Sulfate	mg/L	ND	50	50	49.1	49.4	98	99	90-110	1	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2988349 2988350

Parameter	Units	92493137003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	20.0	50	50	69.2	69.3	98	99	90-110	0	10	
Fluoride	mg/L	ND	2.5	2.5	2.7	2.7	108	110	90-110	1	10	
Sulfate	mg/L	196	50	50	238	238	85	85	90-110	0	10	M1

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QUALIFIERS

Project: YATES AP-1 APP III & IV
Pace Project No.: 92493156

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - 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.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

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

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

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110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: YATES AP-1 APP III & IV
Pace Project No.: 92493156

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92493156001	**YGWC-44**				
92493156002	**YGWC-45**				
92493156003	**YGWA-47**				
92493156004	**YGWC-46A**				
92493156005	**YGWC-52**				
92493156004	**YGWC-46A**	EPA 3010A	563496	EPA 6010D	563571
92493156005	**YGWC-52**	EPA 3010A	563496	EPA 6010D	563571
92493156006	**DUP-01 (082820)**	EPA 3010A	563496	EPA 6010D	563571
92493156001	**YGWC-44**	EPA 3005A	563435	EPA 6020B	563455
92493156002	**YGWC-45**	EPA 3005A	563435	EPA 6020B	563455
92493156003	**YGWA-47**	EPA 3005A	563435	EPA 6020B	563455
92493156004	**YGWC-46A**	EPA 3005A	563435	EPA 6020B	563455
92493156005	**YGWC-52**	EPA 3005A	563435	EPA 6020B	563455
92493156006	**DUP-01 (082820)**	EPA 3005A	563435	EPA 6020B	563455
92493156001	**YGWC-44**	EPA 7470A	563439	EPA 7470A	563480
92493156002	**YGWC-45**	EPA 7470A	563439	EPA 7470A	563480
92493156003	**YGWA-47**	EPA 7470A	563439	EPA 7470A	563480
92493156004	**YGWC-46A**	EPA 7470A	563439	EPA 7470A	563480
92493156005	**YGWC-52**	EPA 7470A	563439	EPA 7470A	563480
92493156006	**DUP-01 (082820)**	EPA 7470A	563439	EPA 7470A	563480
92493156001	**YGWC-44**	EPA 300.0 Rev 2.1 1993	563652		
92493156002	**YGWC-45**	EPA 300.0 Rev 2.1 1993	563652		
92493156003	**YGWA-47**	EPA 300.0 Rev 2.1 1993	563652		
92493156004	**YGWC-46A**	EPA 300.0 Rev 2.1 1993	563652		
92493156005	**YGWC-52**	EPA 300.0 Rev 2.1 1993	563652		
92493156006	**DUP-01 (082820)**	EPA 300.0 Rev 2.1 1993	563652		

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Sample Condition Upon Receipt

Pace Analytical

Client Name: GA Power

WO#: 92493156

92493156

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☑ Client ☐ Commercial ☐ Pace Other

Tracking #: _____

Proj. Name:

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

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☑ None ☐ Other _____

Thermometer Used 2/4 Type of Ice: (Wet) Blue None ☐ Samples on ice, cooling process has begun

Cooler Temperature 4.1 Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: 5/25/2004

Temp should be above freezing to 6°C

		Comments:
Chain of Custody Present:	☑Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☑Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☑Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☑Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☑Yes ☐No ☐N/A	5.
Short Hold Time Analysis (<72hr):	☐Yes ☑No ☐N/A	6.
Rush Turn Around Time Requested:	☐Yes ☑No ☐N/A	7.
Sufficient Volume:	☑Yes ☐No ☐N/A	8.
Correct Containers Used:	☑Yes ☐No ☐N/A	9.
-Pace Containers Used:	☑Yes ☐No ☐N/A	
Containers Intact:	☑Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☑N/A	11.
Sample Labels match COC:	☑Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix: W		
All containers needing preservation have been checked.	☑Yes ☐No ☐N/A	13. Dup-01 Met3 pH adj 7→<2 CH 5/25/03
All containers needing preservation are found to be in compliance with EPA recommendation.	☐Yes ☑No ☐N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	☐Yes ☑No	Initial when completed CH — Lot # of added preservative 07720-2EIZ
Samples checked for dechlorination:	☐Yes ☐No ☑N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes ☐No ☑N/A	15.
Trip Blank Present:	☐Yes ☐No ☑N/A	16.
Trip Blank Custody Seals Present	☐Yes ☐No ☑N/A	
Pace Trip Blank Lot # (if purchased):		

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

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____ **Date:** _____

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

F-ALLC003rev 3, 11September2006

Pace Analytical	Document Name: Bottle Identification Form (BIF)	Document Issued: March 14, 2019 Page 1 of 1
	Document No.: F-CAR-CS-043-Rev.00	Issuing Authority: Pace Carolinas Quality Office

Project # **WO#: 92493156**

PM: KLH1 Due Date: 08/31/20

CLIENT: GA-GA Power

*Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.

Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC, LLHg

**Bottom half of box is to list number of bottle

Matrix	Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4C-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass Jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	AG3A(DG3A)-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unp (N/A)	DG9P-40 mL VOA H3PO4 (N/A)	VOAK (6 vials per kit)-5035 kit (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A – lab)	SP2T-250 mL Sterile Plastic (N/A – lab)	BP	BP3A-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved vials (N/A)
	1		1																									
	2		1																									
	3		1																									
	4																											
	5																											
	6																											
	7																											
	8																											
	9																											
	10																											
	11																											
	12																											

pH Adjustment Log for Preserved Samples

Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added
Dup-01	1+1 NO3	7	8/25/20	1820	2.5 ml 072720-2

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certifica

Out of hold, incorrect preservative, out of temp, incorrect containers.

Pace Analytical®

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page : 1 Of 1

Section A Required Client Information:
Company: Arcadis (GA Power)
Address: 2839 Paces Ferry Rd
Ste 900, Atlanta, GA 30339
Email:
Phone: Fax:
Requested Due Date:

Section B Required Project Information:
Report To: Becky Steever
Copy To:
Purchase Order #:
Project Name: Yates AP-1 App IV
Project #:

Section C Invoice Information:
Attention:
Company Name:
Address:
Pace Quote:
Pace Project Manager: kevin.herring@pacelabs.com,
Pace Profile #: 10840

Regulatory Agency
State / Location: GA

SAMPLE ID — One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique

MATRIX / CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Other OT; Tissue TS

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE	START DATE	START TIME	END DATE	END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	300.0 - Fluoride	App IV Metals	RAD 9315/9320 *	Fluoride	Mercury 7470A	Residual Chlorine (Y/N) — 92493156
1	YGWC-44	WT		8/27	~~1455~~ 1505				4									X	X	X	X	X	pH 7.05
2	YGWC-45	WT		8/28	1015				4									X	X	X	X	X	pH 6.84
3	YGWC-47 YGWA-47 KGS	WT		8/27	1155				4									X	X	X	X	X	pH 4.88
4	YGWC-46A	WT		8/28	1220				3									X	X	X	X	X	pH 7.05
5	YGWC-52	WT		8/28	1205				3									X	X	X	X	X	pH 5.90
6	DUP-01 (082820)			8/28	-				3									X	X	X		X	pH
7	~~EB-01 (082820)~~ RB			8/28																			
8																							
9																							
10																							
11																							
12																							

5.75

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
IV Sb, As, Ba, Be, Cd, Cr, Co, Hg, Pb, Li, Mo, Se, Tl Included on 2nd COC for 4VA n.52 (App III)	Becky Steever / Arcadis	8/28/20	1814	[illegible] / Pace	8/28/20	1814	

* DUP-01 App IV metals unpreserved

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: Becky Steever
SIGNATURE of SAMPLER: [signature] DATE Signed: 08/28/20

TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

September 2020

Semiannual Event

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

October 14, 2020

Ms. Lauren Petty
Southern Co. Services
42 Inverness Center Parkway
Birmingham, AL 35242

RE: Project: YATES AP-1 RADS
Pace Project No.: 92497110

Dear Ms. Petty:

Enclosed are the analytical results for sample(s) received by the laboratory on September 23, 2020. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Greensburg

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

Sincerely,

Kevin Herring
kevin.herring@pacelabs.com
1(704)875-9092
HORIZON Database Administrator

Enclosures

cc: Joju Abraham, Georgia Power-CCR
Geoffrey Gay, ARCADIS - Atlanta
Kristen Jurinko
Kelley Sharpe, ARCADIS - Atlanta
Alex Simpson, Arcadis
Samantha Thomas
Maribel Vital

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CERTIFICATIONS

Project: YATES AP-1 RADS
Pace Project No.: 92497110

Pace Analytical Services Pennsylvania
1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
Delaware Certification
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Florida: Cert E871149 SEKS WET
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA180012
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: 2017020
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572018-1
New Hampshire/TNI Certification #: 297617
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-010
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: 02867
Texas/TNI Certification #: T104704188-17-3
Utah/TNI Certification #: PA014572017-9
USDA Soil Permit #: P330-17-00091
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 9526
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad
Wyoming Certification #: 8TMS-L

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SAMPLE SUMMARY

Project: YATES AP-1 RADS
Pace Project No.: 92497110

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92497110001	**YGWA-47 (092220)**	Water	09/22/20 10:15	09/23/20 17:40
92497110002	**YGWC-52 (092220)**	Water	09/22/20 13:45	09/23/20 17:40
92497110003	**YGWC-44 (092220)**	Water	09/22/20 16:48	09/23/20 17:40
92497110004	**YGWC-45 (092320)**	Water	09/23/20 09:15	09/23/20 17:40
92497110005	**YGWC-46A (092320)**	Water	09/23/20 11:05	09/23/20 17:40
92497110006	**DUP (092320)**	Water	09/23/20 00:00	09/23/20 17:40
92497110007	**FIELD BLANK (092320)**	Water	09/23/20 09:00	09/23/20 17:40
92497110008	**EQUIPMENT BLANK (092320)**	Water	09/23/20 10:35	09/23/20 17:40

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SAMPLE ANALYTE COUNT

Project: YATES AP-1 RADS
Pace Project No.: 92497110

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92497110001	**YGWA-47 (092220)**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92497110002	**YGWC-52 (092220)**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92497110003	**YGWC-44 (092220)**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92497110004	**YGWC-45 (092320)**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92497110005	**YGWC-46A (092320)**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92497110006	**DUP (092320)**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92497110007	**FIELD BLANK (092320)**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92497110008	**EQUIPMENT BLANK (092320)**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA

PASI-PA = Pace Analytical Services - Greensburg

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SUMMARY OF DETECTION

Project: YATES AP-1 RADS
Pace Project No.: 92497110

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92497110001	**YGWA-47 (092220)**					
EPA 9315	Radium-226	0.477 ± 0.317 (0.490) C:82% T:NA	pCi/L		10/09/20 08:12	
EPA 9320	Radium-228	0.585 ± 0.428 (0.825) C:62% T:83%	pCi/L		10/12/20 14:59	
Total Radium Calculation	Total Radium	1.06 ± 0.745 (1.32)	pCi/L		10/14/20 09:21	
92497110002	**YGWC-52 (092220)**					
EPA 9315	Radium-226	0.268 ± 0.274 (0.523) C:75% T:NA	pCi/L		10/09/20 08:12	
EPA 9320	Radium-228	-0.237 ± 0.539 (1.30) C:61% T:66%	pCi/L		10/12/20 14:59	
Total Radium Calculation	Total Radium	0.268 ± 0.813 (1.82)	pCi/L		10/14/20 09:21	
92497110003	**YGWC-44 (092220)**					
EPA 9315	Radium-226	0.327 ± 0.307 (0.572) C:70% T:NA	pCi/L		10/09/20 08:12	
EPA 9320	Radium-228	-0.0245 ± 0.863 (2.02) C:64% T:65%	pCi/L		10/12/20 18:57	
Total Radium Calculation	Total Radium	0.327 ± 1.17 (2.59)	pCi/L		10/14/20 09:27	
92497110004	**YGWC-45 (092320)**					
EPA 9315	Radium-226	0.563 ± 0.334 (0.473) C:83% T:NA	pCi/L		10/09/20 08:12	
EPA 9320	Radium-228	0.183 ± 0.674 (1.53) C:63% T:72%	pCi/L		10/12/20 18:58	
Total Radium Calculation	Total Radium	0.746 ± 1.01 (2.00)	pCi/L		10/14/20 09:27	

REPORT OF LABORATORY ANALYSIS

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110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SUMMARY OF DETECTION

Project: YATES AP-1 RADS
Pace Project No.: 92497110

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92497110005	**YGWC-46A (092320)**					
EPA 9315	Radium-226	0.531 ± 0.362 (0.575) C:69% T:NA	pCi/L		10/09/20 08:12	
EPA 9320	Radium-228	0.0444 ± 0.555 (1.29) C:68% T:81%	pCi/L		10/12/20 18:58	
Total Radium Calculation	Total Radium	0.575 ± 0.917 (1.87)	pCi/L		10/14/20 09:27	
92497110006	**DUP (092320)**					
EPA 9315	Radium-226	0.565 ± 0.340 (0.513) C:87% T:NA	pCi/L		10/09/20 08:12	
EPA 9320	Radium-228	0.357 ± 0.858 (1.91) C:60% T:73%	pCi/L		10/12/20 18:58	
Total Radium Calculation	Total Radium	0.922 ± 1.20 (2.42)	pCi/L		10/14/20 09:27	
92497110007	**FIELD BLANK (092320)**					
EPA 9315	Radium-226	-0.0356 ± 0.136 (0.433) C:91% T:NA	pCi/L		10/09/20 08:12	
EPA 9320	Radium-228	0.466 ± 0.680 (1.46) C:65% T:82%	pCi/L		10/12/20 18:58	
Total Radium Calculation	Total Radium	0.466 ± 0.816 (1.89)	pCi/L		10/14/20 09:27	
92497110008	**EQUIPMENT BLANK (092320)**					
EPA 9315	Radium-226	0.0766 ± 0.226 (0.555) C:83% T:NA	pCi/L		10/09/20 08:12	
EPA 9320	Radium-228	0.616 ± 0.732 (1.55) C:64% T:79%	pCi/L		10/12/20 18:58	
Total Radium Calculation	Total Radium	0.693 ± 0.958 (2.11)	pCi/L		10/14/20 09:27	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: YATES AP-1 RADS
Pace Project No.: 92497110

Sample: YGWA-47 (092220) **Lab ID: 92497110001** Collected: 09/22/20 10:15 Received: 09/23/20 17:40 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	**0.477 ± 0.317 (0.490) C:82% T:NA**	pCi/L	10/09/20 08:12	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.585 ± 0.428 (0.825) C:62% T:83%**	pCi/L	10/12/20 14:59	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.06 ± 0.745 (1.32)**	pCi/L	10/14/20 09:21	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: YATES AP-1 RADS
Pace Project No.: 92497110

Sample: YGWC-52 (092220) **Lab ID: 92497110002** Collected: 09/22/20 13:45 Received: 09/23/20 17:40 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	**0.268 ± 0.274 (0.523) C:75% T:NA**	pCi/L	10/09/20 08:12	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**-0.237 ± 0.539 (1.30) C:61% T:66%**	pCi/L	10/12/20 14:59	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.268 ± 0.813 (1.82)**	pCi/L	10/14/20 09:21	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: YATES AP-1 RADS
Pace Project No.: 92497110

Sample: YGWC-44 (092220) **Lab ID: 92497110003** Collected: 09/22/20 16:48 Received: 09/23/20 17:40 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	**0.327 ± 0.307 (0.572) C:70% T:NA**	pCi/L	10/09/20 08:12	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**-0.0245 ± 0.863 (2.02) C:64% T:65%**	pCi/L	10/12/20 18:57	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.327 ± 1.17 (2.59)**	pCi/L	10/14/20 09:27	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: YATES AP-1 RADS
Pace Project No.: 92497110

Sample: YGWC-45 (092320) **Lab ID: 92497110004** Collected: 09/23/20 09:15 Received: 09/23/20 17:40 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	**0.563 ± 0.334 (0.473) C:83% T:NA**	pCi/L	10/09/20 08:12	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.183 ± 0.674 (1.53) C:63% T:72%**	pCi/L	10/12/20 18:58	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.746 ± 1.01 (2.00)**	pCi/L	10/14/20 09:27	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: YATES AP-1 RADS
Pace Project No.: 92497110

Sample: YGWC-46A (092320) **Lab ID: 92497110005** Collected: 09/23/20 11:05 Received: 09/23/20 17:40 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	**0.531 ± 0.362 (0.575) C:69% T:NA**	pCi/L	10/09/20 08:12	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.0444 ± 0.555 (1.29) C:68% T:81%**	pCi/L	10/12/20 18:58	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.575 ± 0.917 (1.87)**	pCi/L	10/14/20 09:27	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: YATES AP-1 RADS
Pace Project No.: 92497110

Sample: DUP (092320) **Lab ID: 92497110006** Collected: 09/23/20 00:00 Received: 09/23/20 17:40 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	**0.565 ± 0.340 (0.513) C:87% T:NA**	pCi/L	10/09/20 08:12	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.357 ± 0.858 (1.91) C:60% T:73%**	pCi/L	10/12/20 18:58	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.922 ± 1.20 (2.42)**	pCi/L	10/14/20 09:27	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: YATES AP-1 RADS
Pace Project No.: 92497110

Sample: FIELD BLANK (092320) **Lab ID: 92497110007** Collected: 09/23/20 09:00 Received: 09/23/20 17:40 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	**-0.0356 ± 0.136 (0.433) C:91% T:NA**	pCi/L	10/09/20 08:12	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.466 ± 0.680 (1.46) C:65% T:82%**	pCi/L	10/12/20 18:58	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.466 ± 0.816 (1.89)**	pCi/L	10/14/20 09:27	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: YATES AP-1 RADS
Pace Project No.: 92497110

Sample: EQUIPMENT BLANK (092320) **Lab ID: 92497110008** Collected: 09/23/20 10:35 Received: 09/23/20 17:40 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	**0.0766 ± 0.226 (0.555) C:83% T:NA**	pCi/L	10/09/20 08:12	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.616 ± 0.732 (1.55) C:64% T:79%**	pCi/L	10/12/20 18:58	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.693 ± 0.958 (2.11)**	pCi/L	10/14/20 09:27	7440-14-4	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: YATES AP-1 RADS
Pace Project No.: 92497110

QC Batch: 415890
QC Batch Method: EPA 9315
Analysis Method: EPA 9315
Analysis Description: 9315 Total Radium
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 92497110001, 92497110002, 92497110003, 92497110004, 92497110005, 92497110006, 92497110007, 92497110008

METHOD BLANK: 2010987 Matrix: Water
Associated Lab Samples: 92497110001, 92497110002, 92497110003, 92497110004, 92497110005, 92497110006, 92497110007, 92497110008

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.214 ± 0.231 (0.446) C:86% T:NA	pCi/L	10/09/20 08:12	

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

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QUALITY CONTROL - RADIOCHEMISTRY

Project: YATES AP-1 RADS
Pace Project No.: 92497110

QC Batch: 415888
QC Batch Method: EPA 9320
Analysis Method: EPA 9320
Analysis Description: 9320 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 92497110001, 92497110002, 92497110003, 92497110004, 92497110005, 92497110006, 92497110007, 92497110008

METHOD BLANK: 2010985 Matrix: Water
Associated Lab Samples: 92497110001, 92497110002, 92497110003, 92497110004, 92497110005, 92497110006, 92497110007, 92497110008

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.197 ± 0.376 (0.826) C:67% T:78%	pCi/L	10/12/20 14:59	

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

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: YATES AP-1 RADS
Pace Project No.: 92497110

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - 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.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

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.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: YATES AP-1 RADS
Pace Project No.: 92497110

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92497110001	**YGWA-47 (092220)**	EPA 9315	415890		
92497110002	**YGWC-52 (092220)**	EPA 9315	415890		
92497110003	**YGWC-44 (092220)**	EPA 9315	415890		
92497110004	**YGWC-45 (092320)**	EPA 9315	415890		
92497110005	**YGWC-46A (092320)**	EPA 9315	415890		
92497110006	**DUP (092320)**	EPA 9315	415890		
92497110007	**FIELD BLANK (092320)**	EPA 9315	415890		
92497110008	**EQUIPMENT BLANK (092320)**	EPA 9315	415890		
92497110001	**YGWA-47 (092220)**	EPA 9320	415888		
92497110002	**YGWC-52 (092220)**	EPA 9320	415888		
92497110003	**YGWC-44 (092220)**	EPA 9320	415888		
92497110004	**YGWC-45 (092320)**	EPA 9320	415888		
92497110005	**YGWC-46A (092320)**	EPA 9320	415888		
92497110006	**DUP (092320)**	EPA 9320	415888		
92497110007	**FIELD BLANK (092320)**	EPA 9320	415888		
92497110008	**EQUIPMENT BLANK (092320)**	EPA 9320	415888		
92497110001	**YGWA-47 (092220)**	Total Radium Calculation	418329		
92497110002	**YGWC-52 (092220)**	Total Radium Calculation	418329		
92497110003	**YGWC-44 (092220)**	Total Radium Calculation	418331		
92497110004	**YGWC-45 (092320)**	Total Radium Calculation	418331		
92497110005	**YGWC-46A (092320)**	Total Radium Calculation	418331		
92497110006	**DUP (092320)**	Total Radium Calculation	418331		
92497110007	**FIELD BLANK (092320)**	Total Radium Calculation	418331		
92497110008	**EQUIPMENT BLANK (092320)**	Total Radium Calculation	418331		

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Sample Condition Upon Receipt

Pace Analytical

Client Name: GA Power

WO#: 92497110

92497110

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☑ Client ☐ Commercial ☐ Pace Other

Tracking #: _____

Proj. Name:

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

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☑ None ☐ Other _____

Thermometer Used 230

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

Cooler Temperature 3.4°C

Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: 9/23/2004

Temp should be above freezing to 6°C

Comments:

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

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

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____ **Date:** _____

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

F-ALLC003rev 3, 11September2006

Pace Analytical	Document Name: Bottle Identification Form (BIF)	Document Issued: March 14, 2019 Page 1 of 1
	Document No.: F-CAR-CS-043-Rev.00	Issuing Authority: Pace Carolinas Quality Office

•Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.

Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC, LLHg

••Bottom half of box is to list number of bottle

Projec **WO#: 92497110**

PM: KLH1 Due Date: 10/14/20

CLIENT: GA-GA Power

Matrix	Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4C-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	AG3A(DG3A)-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unp (N/A)	DG9P-40 mL VOA H3PO4 (N/A)	VOAK (6 vials per kit)-5035 kit (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A – lab)	SP2T-250 mL Sterile Plastic (N/A – lab)	BP1N	BP3A-250 mL Plastic (NH4)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved vials (N/A)	VSGU-20 mL Scintillation vials (N/A)
	1		1	1				1																		2		
	2		1	1				1																		2		
	3		1	1				1																		2		
	4		1	1				1																		2		
	5		1	1				1																		2		
	6		1	1				1																		2		
	7		1	1				1																		2		
	8		1	1				1																		2		
	9																											
	10																											
	11																											
	12																											

pH Adjustment Log for Preserved Samples

Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	Lot

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 Of
Out of hold, incorrect preservative, out of temp, incorrect containers.

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page : 1 Of 1

Section A — Required Client Information:
Company: Georgia Power
Address: 1070 Bridge Mill Ave
Marietta, GA 30114
Email:
Phone: (770)384-6526 Fax:
Requested Due Date:

Section B — Required Project Information:
Report To: Becky Sleever
Copy To:
Purchase Order #:
Project Name: Yates AP-1
Project #:

Section C — Invoice Information:
Attention:
Company Name:
Address:
Pace Quote:
Pace Project Manager: kevin.herring@pacelabs.com,
Pace Profile #: 10640

Regulatory Agency:
State / Location: GA

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test: TDS	Anions	App III & IV Metals	RAD 9315/9320	Residual Chlorine (Y/N)	9224/9110
1	YGWA-47 (092220)	WT	G			9-22	10:15		5	X		X						x	x	x	x		pH: 5.46
2	YGWC-52 (092220)	WT	G			9-22	13:45		5	X		X						x	x	x	x		pH: 5.91
3	YGWC-44 (092220)	WT	G			9-22	16:48		5	X		X						x	x	x	x		pH: 5.53
4	YGWC-45 (092320)	WT	G			9-23	9:15		5	X		X						x	x	x	x		pH: 6.57
5	YGWC-46A (092320)	WT	G			9-23	11:05		5	X		X						x	x	x	x		6.81 : pH
6	DUP (092320)	WT	G			9-23	—		5	X		X						x	x	x	x		—
7	FIELD BLANK (092320)	WT	G			9-23	9:00		5	X		X						x	x	x	x		—
8	EQUIPMENT BLANK (092320)	WT	G			9-23	10:35		5	X		X						x	x	x	x		—
9																							
10																							
11																							
12																							

MATRIX CODE: Drinking Water DW, Water WT, Waste Water WW, Product P, Soil/Solid SL, Oil OL, Wipe WP, Air AR, Other OT, Tissue TS

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
Se, Tl, Cd - no analysis		9/23/20	1740	Charles Hunter	9/23/20	1740	

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: Katie Pupkiewicz
SIGNATURE of SAMPLER: DATE Signed: 9/23/2020

TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

Quality Control Sample Performance Assessment

Pace Analytical™
www.pacelabs.com

Test:	Ra-226
Analyst:	LAL
Date:	10/8/2020
Worklist:	56442
Matrix:	DW

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	2010987
MB concentration:	0.214
M/B Counting Uncertainty:	0.229
MB MDC:	0.446
MB Numerical Performance Indicator:	1.83
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	N
	LCS56442	LCSD56442
Count Date:	10/9/2020	
Spike I.D.:	19-033	
Decay Corrected Spike Concentration (pCi/mL):	24.044	
Volume Used (mL):	0.10	
Aliquot Volume (L, g, F):	0.507	
Target Conc. (pCi/L, g, F):	4.741	
Uncertainty (Calculated):	0.057	
Result (pCi/L, g, F):	4.940	
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.794	
Numerical Performance Indicator:	0.49	
Percent Recovery:	104.19%	
Status vs Numerical Indicator:	N/A	
Status vs Recovery:	Pass	
Upper % Recovery Limits:	125%	
Lower % Recovery Limits:	75%	

Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
Sample Collection Date:		
Sample I.D.		
Sample MS I.D.		
Sample MSD I.D.		
Spike I.D.:		
MS/MSD Decay Corrected Spike Concentration (pCi/mL):		
Spike Volume Used in MS (mL):		
Spike Volume Used in MSD (mL):		
MS Aliquot (L, g, F):		
MS Target Conc.(pCi/L, g, F):		
MSD Aliquot (L, g, F):		
MSD Target Conc. (pCi/L, g, F):		
MS Spike Uncertainty (calculated):		
MSD Spike Uncertainty (calculated):		
Sample Result:		
Sample Result Counting Uncertainty (pCi/L, g, F):		
Sample Matrix Spike Result:		
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):		
Sample Matrix Spike Duplicate Result:		
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):		
MS Numerical Performance Indicator:		
MSD Numerical Performance Indicator:		
MS Percent Recovery:		
MSD Percent Recovery:		
MS Status vs Numerical Indicator:		
MSD Status vs Numerical Indicator:		
MS Status vs Recovery:		
MSD Status vs Recovery:		
MS/MSD Upper % Recovery Limits:		
MS/MSD Lower % Recovery Limits:		

Duplicate Sample Assessment		
Sample I.D.:	92497110001	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.	92497110001DUP	
Sample Result (pCi/L, g, F):	0.477	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.309	
Sample Duplicate Result (pCi/L, g, F):	0.448	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.340	
Are sample and/or duplicate results below RL?	See Below ##	
Duplicate Numerical Performance Indicator:	0.121	92497110001
Duplicate RPD:	6.12%	92497110001DUP
Duplicate Status vs Numerical Indicator:	N/A	
Duplicate Status vs RPD:	Pass	
% RPD Limit:	25%	

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

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

Comments:

LAM 10/9/2020

Quality Control Sample Performance Assessment

Pace Analytical™ www.pacelabs.com

Test:	Ra-226
Analyst:	LAL
Date:	10/8/2020
Worklist:	56442
Matrix:	DW

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	2010987
MB concentration:	0.214
M/B Counting Uncertainty:	0.229
MB MDC:	0.446
MB Numerical Performance Indicator:	1.83
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	Y
	LCS56442	LCSD56442
Count Date:	10/9/2020	10/9/2020
Spike I.D.:	19-033	19-033
Decay Corrected Spike Concentration (pCi/mL):	24.044	24.044
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.507	0.514
Target Conc. (pCi/L, g, F):	4.741	4.677
Uncertainty (Calculated):	0.057	0.056
Result (pCi/L, g, F):	4.940	4.201
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.794	0.785
Numerical Performance Indicator:	0.49	-1.18
Percent Recovery:	104.19%	89.83%
Status vs Numerical Indicator:	N/A	N/A
Status vs Recovery:	Pass	Pass
Upper % Recovery Limits:	125%	125%
Lower % Recovery Limits:	75%	75%

Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
Sample Collection Date:		
Sample I.D.		
Sample MS I.D.		
Sample MSD I.D.		
Spike I.D.:		
MS/MSD Decay Corrected Spike Concentration (pCi/mL):		
Spike Volume Used in MS (mL):		
Spike Volume Used in MSD (mL):		
MS Aliquot (L, g, F):		
MS Target Conc.(pCi/L, g, F):		
MSD Aliquot (L, g, F):		
MSD Target Conc. (pCi/L, g, F):		
MS Spike Uncertainty (calculated):		
MSD Spike Uncertainty (calculated):		
Sample Result:		
Sample Result Counting Uncertainty (pCi/L, g, F):		
Sample Matrix Spike Result:		
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):		
Sample Matrix Spike Duplicate Result:		
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):		
MS Numerical Performance Indicator:		
MSD Numerical Performance Indicator:		
MS Percent Recovery:		
MSD Percent Recovery:		
MS Status vs Numerical Indicator:		
MSD Status vs Numerical Indicator:		
MS Status vs Recovery:		
MSD Status vs Recovery:		
MS/MSD Upper % Recovery Limits:		
MS/MSD Lower % Recovery Limits:		

Duplicate Sample Assessment		
Sample I.D.:	LCS56442	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.	LCSD56442	
Sample Result (pCi/L, g, F):	4.940	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.794	
Sample Duplicate Result (pCi/L, g, F):	4.201	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.785	
Are sample and/or duplicate results below RL?	NO	
Duplicate Numerical Performance Indicator:	1.297	92497110001
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	14.81%	92497110001DUP
Duplicate Status vs Numerical Indicator:	N/A	
Duplicate Status vs RPD:	Pass	
% RPD Limit:	25%	

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

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

Comments:

LAM 10/9/2020

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

October 08, 2020

Ms. Lauren Petty
Southern Co. Services
42 Inverness Center Parkway
Birmingham, AL 35242

RE: Project: YATES AP-1
Pace Project No.: 92497144

Dear Ms. Petty:

Enclosed are the analytical results for sample(s) received by the laboratory on September 23, 2020. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Asheville
- Pace Analytical Services - Charlotte
- Pace Analytical Services - Peachtree Corners, GA

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

Sincerely,

Kevin Herring
kevin.herring@pacelabs.com
1(704)875-9092
HORIZON Database Administrator

Enclosures

cc: Joju Abraham, Georgia Power-CCR
Geoffrey Gay, ARCADIS - Atlanta
Kristen Jurinko
Kelley Sharpe, ARCADIS - Atlanta
Alex Simpson, Arcadis
Samantha Thomas
Maribel Vital

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CERTIFICATIONS

Project: YATES AP-1
Pace Project No.: 92497144

Pace Analytical Services Charlotte
9800 Kincey Ave. Ste 100, Huntersville, NC 28078
Louisiana/NELAP Certification # LA170028
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12
South Carolina Certification #: 99006001
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
Virginia/VELAP Certification #: 460221

Pace Analytical Services Asheville
2225 Riverside Drive, Asheville, NC 28804
Florida/NELAP Certification #: E87648
Massachusetts Certification #: M-NC030
North Carolina Drinking Water Certification #: 37712
North Carolina Wastewater Certification #: 40
South Carolina Certification #: 99030001
Virginia/VELAP Certification #: 460222

Pace Analytical Services Peachtree Corners
110 Technology Pkwy, Peachtree Corners, GA 30092
Florida DOH Certification #: E87315
Georgia DW Inorganics Certification #: 812
Georgia DW Microbiology Certification #: 812
North Carolina Certification #: 381
South Carolina Certification #: 98011001
Virginia Certification #: 460204

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SAMPLE SUMMARY

Project: YATES AP-1
Pace Project No.: 92497144

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92497144001	**YGWA-47 (092220)**	Water	09/22/20 10:15	09/23/20 17:40
92497144002	**YGWC-52 (092220)**	Water	09/22/20 13:45	09/23/20 17:40
92497144003	**YGWC-44 (092220)**	Water	09/22/20 16:48	09/23/20 17:40
92497144004	**YGWC-45 (092320)**	Water	09/23/20 09:15	09/23/20 17:40
92497144005	**YGWC-46A (092320)**	Water	09/23/20 11:05	09/23/20 17:40
92497144006	**DUP (092320)**	Water	09/23/20 00:00	09/23/20 17:40
92497144007	**FIELD BLANK (092320)**	Water	09/23/20 09:00	09/23/20 17:40
92497144008	**EQUIPMENT BLANK (092320)**	Water	09/23/20 10:35	09/23/20 17:40

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SAMPLE ANALYTE COUNT

Project: YATES AP-1
Pace Project No.: 92497144

Lab ID	Sample ID	Method	Analysts	Analytes Reported
92497144001	**YGWA-47 (092220)**	EPA 6010D	DRB	1
		EPA 6020B	CW1	10
		SM 2450C-2011	JRS	1
		EPA 300.0 Rev 2.1 1993	BRJ	3
92497144002	**YGWC-52 (092220)**	EPA 6010D	DRB	1
		EPA 6020B	CW1	10
		SM 2450C-2011	JRS	1
		EPA 300.0 Rev 2.1 1993	BRJ	3
92497144003	**YGWC-44 (092220)**	EPA 6010D	DRB	1
		EPA 6020B	CW1	10
		SM 2450C-2011	JRS	1
		EPA 300.0 Rev 2.1 1993	BRJ	3
92497144004	**YGWC-45 (092320)**	EPA 6010D	DRB	1
		EPA 6020B	CW1	10
		SM 2450C-2011	JRS	1
		EPA 300.0 Rev 2.1 1993	BRJ	3
92497144005	**YGWC-46A (092320)**	EPA 6010D	DRB	1
		EPA 6020B	CW1	10
		SM 2450C-2011	JRS	1
		EPA 300.0 Rev 2.1 1993	BRJ	3
92497144006	**DUP (092320)**	EPA 6010D	DRB	1
		EPA 6020B	CW1	10
		SM 2450C-2011	JRS	1
		EPA 300.0 Rev 2.1 1993	BRJ	3
92497144007	**FIELD BLANK (092320)**	EPA 6010D	DRB	1
		EPA 6020B	CW1	10
		SM 2450C-2011	JRS	1
		EPA 300.0 Rev 2.1 1993	BRJ	3
92497144008	**EQUIPMENT BLANK (092320)**	EPA 6010D	DRB	1
		EPA 6020B	CW1	10
		SM 2450C-2011	JRS	1
		EPA 300.0 Rev 2.1 1993	BRJ	3

PASI-A = Pace Analytical Services - Asheville
PASI-C = Pace Analytical Services - Charlotte
PASI-GA = Pace Analytical Services - Peachtree Corners, GA

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: YATES AP-1
Pace Project No.: 92497144

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92497144001	**YGWA-47 (092220)**					
	pH	5.46	Std. Units		10/08/20 08:18	
EPA 6010D	Calcium	10.1	mg/L	1.0	09/30/20 19:24	
EPA 6020B	Barium	0.026	mg/L	0.010	09/29/20 19:46	
EPA 6020B	Boron	0.0076J	mg/L	0.10	09/29/20 19:46	
EPA 6020B	Cobalt	0.00097J	mg/L	0.0050	09/29/20 19:46	
EPA 6020B	Lithium	0.0036J	mg/L	0.030	09/29/20 19:46	
SM 2450C-2011	Total Dissolved Solids	141	mg/L	10.0	09/25/20 18:00	
EPA 300.0 Rev 2.1 1993	Chloride	4.2	mg/L	1.0	09/26/20 22:18	
EPA 300.0 Rev 2.1 1993	Sulfate	51.5	mg/L	1.0	09/26/20 22:18	
92497144002	**YGWC-52 (092220)**					
	pH	5.91	Std. Units		10/08/20 08:18	
EPA 6010D	Calcium	53.5	mg/L	1.0	09/30/20 19:29	
EPA 6020B	Barium	0.021	mg/L	0.010	09/29/20 19:52	
EPA 6020B	Chromium	0.00073J	mg/L	0.010	09/29/20 19:52	
EPA 6020B	Cobalt	0.0019J	mg/L	0.0050	09/29/20 19:52	
EPA 6020B	Lead	0.000060J	mg/L	0.0050	09/29/20 19:52	
EPA 6020B	Lithium	0.0046J	mg/L	0.030	09/29/20 19:52	
SM 2450C-2011	Total Dissolved Solids	296	mg/L	20.0	09/25/20 18:01	
EPA 300.0 Rev 2.1 1993	Chloride	4.1	mg/L	1.0	09/26/20 22:32	
EPA 300.0 Rev 2.1 1993	Sulfate	156	mg/L	3.0	09/27/20 02:25	
92497144003	**YGWC-44 (092220)**					
	pH	5.53	Std. Units		10/08/20 08:18	
EPA 6010D	Calcium	30.4	mg/L	1.0	09/30/20 19:33	
EPA 6020B	Barium	0.096	mg/L	0.010	09/29/20 19:58	
EPA 6020B	Boron	0.59	mg/L	0.10	09/29/20 19:58	
EPA 6020B	Cobalt	0.0065	mg/L	0.0050	09/29/20 19:58	
EPA 6020B	Lithium	0.013J	mg/L	0.030	09/29/20 19:58	
SM 2450C-2011	Total Dissolved Solids	294	mg/L	20.0	09/25/20 18:01	
EPA 300.0 Rev 2.1 1993	Chloride	14.4	mg/L	1.0	09/26/20 23:16	
EPA 300.0 Rev 2.1 1993	Sulfate	130	mg/L	3.0	09/27/20 02:39	
92497144004	**YGWC-45 (092320)**					
	pH	6.57	Std. Units		10/08/20 08:18	
EPA 6010D	Calcium	50.0	mg/L	1.0	09/30/20 19:37	
EPA 6020B	Barium	0.052	mg/L	0.010	09/29/20 20:04	
EPA 6020B	Boron	0.32	mg/L	0.10	09/29/20 20:04	
EPA 6020B	Chromium	0.00058J	mg/L	0.010	09/29/20 20:04	
EPA 6020B	Cobalt	0.00053J	mg/L	0.0050	09/29/20 20:04	
EPA 6020B	Lithium	0.012J	mg/L	0.030	09/29/20 20:04	
EPA 6020B	Molybdenum	0.0011J	mg/L	0.010	09/29/20 20:04	
SM 2450C-2011	Total Dissolved Solids	404	mg/L	10.0	09/28/20 14:42	
EPA 300.0 Rev 2.1 1993	Chloride	4.9	mg/L	1.0	09/26/20 23:30	
EPA 300.0 Rev 2.1 1993	Fluoride	0.082J	mg/L	0.10	09/26/20 23:30	
EPA 300.0 Rev 2.1 1993	Sulfate	170	mg/L	4.0	09/27/20 02:53	
92497144005	**YGWC-46A (092320)**					
	pH	6.81	Std. Units		10/08/20 08:18	

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: YATES AP-1
Pace Project No.: 92497144

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92497144005	**YGWC-46A (092320)**					
EPA 6010D	Calcium	104	mg/L	1.0	09/30/20 19:50	
EPA 6020B	Arsenic	0.00091J	mg/L	0.0050	09/29/20 20:21	
EPA 6020B	Barium	0.045	mg/L	0.010	09/29/20 20:21	
EPA 6020B	Boron	2.0	mg/L	0.10	09/29/20 20:21	
EPA 6020B	Cobalt	0.0015J	mg/L	0.0050	09/29/20 20:21	
EPA 6020B	Lithium	0.013J	mg/L	0.030	09/29/20 20:21	
EPA 6020B	Molybdenum	0.0025J	mg/L	0.010	09/29/20 20:21	
SM 2450C-2011	Total Dissolved Solids	832	mg/L	20.0	09/28/20 14:49	
EPA 300.0 Rev 2.1 1993	Chloride	28.1	mg/L	1.0	09/26/20 23:45	
EPA 300.0 Rev 2.1 1993	Fluoride	0.12	mg/L	0.10	09/26/20 23:45	
EPA 300.0 Rev 2.1 1993	Sulfate	430	mg/L	9.0	09/27/20 03:08	
92497144006	**DUP (092320)**					
EPA 6010D	Calcium	108	mg/L	1.0	09/30/20 19:54	
EPA 6020B	Barium	0.042	mg/L	0.010	09/29/20 20:26	
EPA 6020B	Boron	1.9	mg/L	0.10	09/29/20 20:26	
EPA 6020B	Cobalt	0.0013J	mg/L	0.0050	09/29/20 20:26	
EPA 6020B	Lithium	0.014J	mg/L	0.030	09/29/20 20:26	
EPA 6020B	Molybdenum	0.0021J	mg/L	0.010	09/29/20 20:26	
SM 2450C-2011	Total Dissolved Solids	832	mg/L	20.0	09/28/20 14:50	
EPA 300.0 Rev 2.1 1993	Chloride	28.2	mg/L	1.0	09/26/20 23:59	
EPA 300.0 Rev 2.1 1993	Fluoride	0.12	mg/L	0.10	09/26/20 23:59	
EPA 300.0 Rev 2.1 1993	Sulfate	430	mg/L	9.0	09/27/20 03:22	
92497144007	**FIELD BLANK (092320)**					
EPA 6020B	Boron	0.0054J	mg/L	0.10	09/29/20 20:32	
92497144008	**EQUIPMENT BLANK (092320)**					
SM 2450C-2011	Total Dissolved Solids	12.0	mg/L	10.0	09/28/20 14:50	

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ANALYTICAL RESULTS

Project: YATES AP-1
Pace Project No.: 92497144

Sample: YGWA-47 (092220) **Lab ID: 92497144001** Collected: 09/22/20 10:15 Received: 09/23/20 17:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
pH	**5.46**	Std. Units			1		10/08/20 08:18		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**10.1**	mg/L	1.0	0.070	1	09/28/20 15:08	09/30/20 19:24	7440-70-2	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00028	1	09/28/20 15:08	09/29/20 19:46	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	09/28/20 15:08	09/29/20 19:46	7440-38-2	
Barium	**0.026**	mg/L	0.010	0.00071	1	09/28/20 15:08	09/29/20 19:46	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000046	1	09/28/20 15:08	09/29/20 19:46	7440-41-7	
Boron	**0.0076J**	mg/L	0.10	0.0052	1	09/28/20 15:08	09/29/20 19:46	7440-42-8	
Chromium	ND	mg/L	0.010	0.00055	1	09/28/20 15:08	09/29/20 19:46	7440-47-3	
Cobalt	**0.00097J**	mg/L	0.0050	0.00038	1	09/28/20 15:08	09/29/20 19:46	7440-48-4	
Lead	ND	mg/L	0.0050	0.000036	1	09/28/20 15:08	09/29/20 19:46	7439-92-1	
Lithium	**0.0036J**	mg/L	0.030	0.00081	1	09/28/20 15:08	09/29/20 19:46	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	09/28/20 15:08	09/29/20 19:46	7439-98-7	
2540C Total Dissolved Solids	Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**141**	mg/L	10.0	10.0	1		09/25/20 18:00		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**4.2**	mg/L	1.0	0.60	1		09/26/20 22:18	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		09/26/20 22:18	16984-48-8	
Sulfate	**51.5**	mg/L	1.0	0.50	1		09/26/20 22:18	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: YATES AP-1
Pace Project No.: 92497144

Sample: YGWC-52 (092220) **Lab ID: 92497144002** Collected: 09/22/20 13:45 Received: 09/23/20 17:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
pH	**5.91**	Std. Units			1		10/08/20 08:18		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**53.5**	mg/L	1.0	0.070	1	09/28/20 15:08	09/30/20 19:29	7440-70-2	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00028	1	09/28/20 15:08	09/29/20 19:52	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	09/28/20 15:08	09/29/20 19:52	7440-38-2	
Barium	**0.021**	mg/L	0.010	0.00071	1	09/28/20 15:08	09/29/20 19:52	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000046	1	09/28/20 15:08	09/29/20 19:52	7440-41-7	
Boron	ND	mg/L	0.10	0.0052	1	09/28/20 15:08	09/29/20 19:52	7440-42-8	
Chromium	**0.00073J**	mg/L	0.010	0.00055	1	09/28/20 15:08	09/29/20 19:52	7440-47-3	
Cobalt	**0.0019J**	mg/L	0.0050	0.00038	1	09/28/20 15:08	09/29/20 19:52	7440-48-4	
Lead	**0.000060J**	mg/L	0.0050	0.000036	1	09/28/20 15:08	09/29/20 19:52	7439-92-1	
Lithium	**0.0046J**	mg/L	0.030	0.00081	1	09/28/20 15:08	09/29/20 19:52	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	09/28/20 15:08	09/29/20 19:52	7439-98-7	
2540C Total Dissolved Solids	Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**296**	mg/L	20.0	20.0	1		09/25/20 18:01		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**4.1**	mg/L	1.0	0.60	1		09/26/20 22:32	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		09/26/20 22:32	16984-48-8	
Sulfate	**156**	mg/L	3.0	1.5	3		09/27/20 02:25	14808-79-8	

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ANALYTICAL RESULTS

Project: YATES AP-1
Pace Project No.: 92497144

Sample: YGWC-44 (092220) **Lab ID: 92497144003** Collected: 09/22/20 16:48 Received: 09/23/20 17:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
pH	**5.53**	Std. Units			1		10/08/20 08:18		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**30.4**	mg/L	1.0	0.070	1	09/28/20 15:08	09/30/20 19:33	7440-70-2	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00028	1	09/28/20 15:08	09/29/20 19:58	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	09/28/20 15:08	09/29/20 19:58	7440-38-2	
Barium	**0.096**	mg/L	0.010	0.00071	1	09/28/20 15:08	09/29/20 19:58	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000046	1	09/28/20 15:08	09/29/20 19:58	7440-41-7	
Boron	**0.59**	mg/L	0.10	0.0052	1	09/28/20 15:08	09/29/20 19:58	7440-42-8	
Chromium	ND	mg/L	0.010	0.00055	1	09/28/20 15:08	09/29/20 19:58	7440-47-3	
Cobalt	**0.0065**	mg/L	0.0050	0.00038	1	09/28/20 15:08	09/29/20 19:58	7440-48-4	
Lead	ND	mg/L	0.0050	0.000036	1	09/28/20 15:08	09/29/20 19:58	7439-92-1	
Lithium	**0.013J**	mg/L	0.030	0.00081	1	09/28/20 15:08	09/29/20 19:58	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	09/28/20 15:08	09/29/20 19:58	7439-98-7	
2540C Total Dissolved Solids	Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**294**	mg/L	20.0	20.0	1		09/25/20 18:01		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**14.4**	mg/L	1.0	0.60	1		09/26/20 23:16	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		09/26/20 23:16	16984-48-8	
Sulfate	**130**	mg/L	3.0	1.5	3		09/27/20 02:39	14808-79-8	

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ANALYTICAL RESULTS

Project: YATES AP-1
Pace Project No.: 92497144

Sample: YGWC-45 (092320) **Lab ID: 92497144004** Collected: 09/23/20 09:15 Received: 09/23/20 17:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
pH	**6.57**	Std. Units			1		10/08/20 08:18		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**50.0**	mg/L	1.0	0.070	1	09/28/20 15:08	09/30/20 19:37	7440-70-2	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00028	1	09/28/20 15:08	09/29/20 20:04	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	09/28/20 15:08	09/29/20 20:04	7440-38-2	
Barium	**0.052**	mg/L	0.010	0.00071	1	09/28/20 15:08	09/29/20 20:04	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000046	1	09/28/20 15:08	09/29/20 20:04	7440-41-7	
Boron	**0.32**	mg/L	0.10	0.0052	1	09/28/20 15:08	09/29/20 20:04	7440-42-8	
Chromium	**0.00058J**	mg/L	0.010	0.00055	1	09/28/20 15:08	09/29/20 20:04	7440-47-3	
Cobalt	**0.00053J**	mg/L	0.0050	0.00038	1	09/28/20 15:08	09/29/20 20:04	7440-48-4	
Lead	ND	mg/L	0.0050	0.000036	1	09/28/20 15:08	09/29/20 20:04	7439-92-1	
Lithium	**0.012J**	mg/L	0.030	0.00081	1	09/28/20 15:08	09/29/20 20:04	7439-93-2	
Molybdenum	**0.0011J**	mg/L	0.010	0.00069	1	09/28/20 15:08	09/29/20 20:04	7439-98-7	
2540C Total Dissolved Solids	Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**404**	mg/L	10.0	10.0	1		09/28/20 14:42		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**4.9**	mg/L	1.0	0.60	1		09/26/20 23:30	16887-00-6	
Fluoride	**0.082J**	mg/L	0.10	0.050	1		09/26/20 23:30	16984-48-8	
Sulfate	**170**	mg/L	4.0	2.0	4		09/27/20 02:53	14808-79-8	

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ANALYTICAL RESULTS

Project: YATES AP-1
Pace Project No.: 92497144

Sample: YGWC-46A (092320) **Lab ID: 92497144005** Collected: 09/23/20 11:05 Received: 09/23/20 17:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
pH	**6.81**	Std. Units			1		10/08/20 08:18		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**104**	mg/L	1.0	0.070	1	09/28/20 15:08	09/30/20 19:50	7440-70-2	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00028	1	09/28/20 15:08	09/29/20 20:21	7440-36-0	
Arsenic	**0.00091J**	mg/L	0.0050	0.00078	1	09/28/20 15:08	09/29/20 20:21	7440-38-2	
Barium	**0.045**	mg/L	0.010	0.00071	1	09/28/20 15:08	09/29/20 20:21	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000046	1	09/28/20 15:08	09/29/20 20:21	7440-41-7	
Boron	**2.0**	mg/L	0.10	0.0052	1	09/28/20 15:08	09/29/20 20:21	7440-42-8	
Chromium	ND	mg/L	0.010	0.00055	1	09/28/20 15:08	09/29/20 20:21	7440-47-3	
Cobalt	**0.0015J**	mg/L	0.0050	0.00038	1	09/28/20 15:08	09/29/20 20:21	7440-48-4	
Lead	ND	mg/L	0.0050	0.000036	1	09/28/20 15:08	09/29/20 20:21	7439-92-1	
Lithium	**0.013J**	mg/L	0.030	0.00081	1	09/28/20 15:08	09/29/20 20:21	7439-93-2	
Molybdenum	**0.0025J**	mg/L	0.010	0.00069	1	09/28/20 15:08	09/29/20 20:21	7439-98-7	
2540C Total Dissolved Solids	Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**832**	mg/L	20.0	20.0	1		09/28/20 14:49		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**28.1**	mg/L	1.0	0.60	1		09/26/20 23:45	16887-00-6	
Fluoride	**0.12**	mg/L	0.10	0.050	1		09/26/20 23:45	16984-48-8	
Sulfate	**430**	mg/L	9.0	4.5	9		09/27/20 03:08	14808-79-8	

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ANALYTICAL RESULTS

Project: YATES AP-1
Pace Project No.: 92497144

Sample: DUP (092320) **Lab ID: 92497144006** Collected: 09/23/20 00:00 Received: 09/23/20 17:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**108**	mg/L	1.0	0.070	1	09/28/20 15:08	09/30/20 19:54	7440-70-2	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00028	1	09/28/20 15:08	09/29/20 20:26	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	09/28/20 15:08	09/29/20 20:26	7440-38-2	
Barium	**0.042**	mg/L	0.010	0.00071	1	09/28/20 15:08	09/29/20 20:26	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000046	1	09/28/20 15:08	09/29/20 20:26	7440-41-7	
Boron	**1.9**	mg/L	0.10	0.0052	1	09/28/20 15:08	09/29/20 20:26	7440-42-8	
Chromium	ND	mg/L	0.010	0.00055	1	09/28/20 15:08	09/29/20 20:26	7440-47-3	
Cobalt	**0.0013J**	mg/L	0.0050	0.00038	1	09/28/20 15:08	09/29/20 20:26	7440-48-4	
Lead	ND	mg/L	0.0050	0.000036	1	09/28/20 15:08	09/29/20 20:26	7439-92-1	
Lithium	**0.014J**	mg/L	0.030	0.00081	1	09/28/20 15:08	09/29/20 20:26	7439-93-2	
Molybdenum	**0.0021J**	mg/L	0.010	0.00069	1	09/28/20 15:08	09/29/20 20:26	7439-98-7	
2540C Total Dissolved Solids	Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**832**	mg/L	20.0	20.0	1		09/28/20 14:50		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**28.2**	mg/L	1.0	0.60	1		09/26/20 23:59	16887-00-6	
Fluoride	**0.12**	mg/L	0.10	0.050	1		09/26/20 23:59	16984-48-8	
Sulfate	**430**	mg/L	9.0	4.5	9		09/27/20 03:22	14808-79-8	

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ANALYTICAL RESULTS

Project: YATES AP-1
Pace Project No.: 92497144

Sample: FIELD BLANK (092320) **Lab ID: 92497144007** Collected: 09/23/20 09:00 Received: 09/23/20 17:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	ND	mg/L	1.0	0.070	1	09/28/20 15:08	09/30/20 19:58	7440-70-2	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00028	1	09/28/20 15:08	09/29/20 20:32	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	09/28/20 15:08	09/29/20 20:32	7440-38-2	
Barium	ND	mg/L	0.010	0.00071	1	09/28/20 15:08	09/29/20 20:32	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000046	1	09/28/20 15:08	09/29/20 20:32	7440-41-7	
Boron	**0.0054J**	mg/L	0.10	0.0052	1	09/28/20 15:08	09/29/20 20:32	7440-42-8	
Chromium	ND	mg/L	0.010	0.00055	1	09/28/20 15:08	09/29/20 20:32	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00038	1	09/28/20 15:08	09/29/20 20:32	7440-48-4	
Lead	ND	mg/L	0.0050	0.000036	1	09/28/20 15:08	09/29/20 20:32	7439-92-1	
Lithium	ND	mg/L	0.030	0.00081	1	09/28/20 15:08	09/29/20 20:32	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	09/28/20 15:08	09/29/20 20:32	7439-98-7	
2540C Total Dissolved Solids	Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	ND	mg/L	10.0	10.0	1		09/28/20 14:50		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	ND	mg/L	1.0	0.60	1		09/27/20 00:13	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		09/27/20 00:13	16984-48-8	
Sulfate	ND	mg/L	1.0	0.50	1		09/27/20 00:13	14808-79-8	

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ANALYTICAL RESULTS

Project: YATES AP-1
Pace Project No.: 92497144

Sample: EQUIPMENT BLANK (092320) **Lab ID: 92497144008** Collected: 09/23/20 10:35 Received: 09/23/20 17:40 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	ND	mg/L	1.0	0.070	1	09/28/20 15:08	09/30/20 20:03	7440-70-2	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00028	1	09/28/20 15:08	09/29/20 20:38	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	09/28/20 15:08	09/29/20 20:38	7440-38-2	
Barium	ND	mg/L	0.010	0.00071	1	09/28/20 15:08	09/29/20 20:38	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000046	1	09/28/20 15:08	09/29/20 20:38	7440-41-7	
Boron	ND	mg/L	0.10	0.0052	1	09/28/20 15:08	09/29/20 20:38	7440-42-8	
Chromium	ND	mg/L	0.010	0.00055	1	09/28/20 15:08	09/29/20 20:38	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00038	1	09/28/20 15:08	09/29/20 20:38	7440-48-4	
Lead	ND	mg/L	0.0050	0.000036	1	09/28/20 15:08	09/29/20 20:38	7439-92-1	
Lithium	ND	mg/L	0.030	0.00081	1	09/28/20 15:08	09/29/20 20:38	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	09/28/20 15:08	09/29/20 20:38	7439-98-7	
2540C Total Dissolved Solids	Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**12.0**	mg/L	10.0	10.0	1		09/28/20 14:50		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	ND	mg/L	1.0	0.60	1		09/27/20 00:28	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		09/27/20 00:28	16984-48-8	
Sulfate	ND	mg/L	1.0	0.50	1		09/27/20 00:28	14808-79-8	

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QUALITY CONTROL DATA

Project: YATES AP-1
Pace Project No.: 92497144

QC Batch: 569429
QC Batch Method: EPA 3010A
Analysis Method: EPA 6010D
Analysis Description: 6010D ATL
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92497144001, 92497144002, 92497144003, 92497144004, 92497144005, 92497144006, 92497144007, 92497144008

METHOD BLANK: 3017011 Matrix: Water
Associated Lab Samples: 92497144001, 92497144002, 92497144003, 92497144004, 92497144005, 92497144006, 92497144007, 92497144008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.070	09/30/20 18:37	

LABORATORY CONTROL SAMPLE: 3017012

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	0.98J	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3017068 3017069

Parameter	Units	92497141008 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Calcium	mg/L	0.91J	1	1	1.9	2.0	102	106	75-125	2	20	

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

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QUALITY CONTROL DATA

Project: YATES AP-1
Pace Project No.: 92497144

QC Batch: 569382
QC Batch Method: EPA 3005A
Analysis Method: EPA 6020B
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92497144001, 92497144002, 92497144003, 92497144004, 92497144005, 92497144006, 92497144007, 92497144008

METHOD BLANK: 3016873 Matrix: Water
Associated Lab Samples: 92497144001, 92497144002, 92497144003, 92497144004, 92497144005, 92497144006, 92497144007, 92497144008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00028	09/29/20 18:03	
Arsenic	mg/L	ND	0.0050	0.00078	09/29/20 18:03	
Barium	mg/L	ND	0.010	0.00071	09/29/20 18:03	
Beryllium	mg/L	ND	0.0030	0.000046	09/29/20 18:03	
Boron	mg/L	ND	0.10	0.0052	09/29/20 18:03	
Chromium	mg/L	ND	0.010	0.00055	09/29/20 18:03	
Cobalt	mg/L	ND	0.0050	0.00038	09/29/20 18:03	
Lead	mg/L	ND	0.0050	0.000036	09/29/20 18:03	
Lithium	mg/L	ND	0.030	0.00081	09/29/20 18:03	
Molybdenum	mg/L	ND	0.010	0.00069	09/29/20 18:03	

LABORATORY CONTROL SAMPLE: 3016874

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.10	102	80-120	
Arsenic	mg/L	0.1	0.095	95	80-120	
Barium	mg/L	0.1	0.098	98	80-120	
Beryllium	mg/L	0.1	0.095	95	80-120	
Boron	mg/L	1	0.94	94	80-120	
Chromium	mg/L	0.1	0.094	94	80-120	
Cobalt	mg/L	0.1	0.094	94	80-120	
Lead	mg/L	0.1	0.098	98	80-120	
Lithium	mg/L	0.1	0.091	91	80-120	
Molybdenum	mg/L	0.1	0.095	95	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3016875 3016876

Parameter	Units	92495870024 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	mg/L	ND	0.1	0.1	0.10	0.099	101	99	75-125	2	20	
Arsenic	mg/L	ND	0.1	0.1	0.097	0.094	97	94	75-125	3	20	
Barium	mg/L	0.013	0.1	0.1	0.11	0.11	98	95	75-125	3	20	
Beryllium	mg/L	ND	0.1	0.1	0.096	0.094	96	94	75-125	1	20	
Boron	mg/L	ND	1	1	0.97	0.93	96	93	75-125	4	20	
Chromium	mg/L	0.00089J	0.1	0.1	0.098	0.095	98	94	75-125	4	20	
Cobalt	mg/L	ND	0.1	0.1	0.097	0.094	97	94	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.

REPORT OF LABORATORY ANALYSIS

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110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: YATES AP-1
Pace Project No.: 92497144

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3016875 3016876

Parameter	Units	92495870024 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Lead	mg/L	0.000075J	0.1	0.1	0.095	0.094	95	94	75-125	1	20	
Lithium	mg/L	ND	0.1	0.1	0.094	0.092	94	92	75-125	2	20	
Molybdenum	mg/L	ND	0.1	0.1	0.099	0.096	98	96	75-125	3	20	

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(770)734-4200

QUALITY CONTROL DATA

Project: YATES AP-1
Pace Project No.: 92497144

QC Batch: 569139 | Analysis Method: SM 2450C-2011
QC Batch Method: SM 2450C-2011 | Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92497144001, 92497144002, 92497144003

METHOD BLANK: 3015723 Matrix: Water
Associated Lab Samples: 92497144001, 92497144002, 92497144003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	09/25/20 17:57	

LABORATORY CONTROL SAMPLE: 3015724

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

SAMPLE DUPLICATE: 3015725

Parameter	Units	92497336001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	ND	ND		10	

SAMPLE DUPLICATE: 3015726

Parameter	Units	92497151001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	394	400	2	10	

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(770)734-4200

QUALITY CONTROL DATA

Project: YATES AP-1
Pace Project No.: 92497144

QC Batch: 569386 | Analysis Method: SM 2450C-2011
QC Batch Method: SM 2450C-2011 | Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92497144004, 92497144005, 92497144006, 92497144007, 92497144008

METHOD BLANK: 3016890 Matrix: Water
Associated Lab Samples: 92497144004, 92497144005, 92497144006, 92497144007, 92497144008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	09/28/20 14:18	

LABORATORY CONTROL SAMPLE: 3016891

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	429	107	84-108	

SAMPLE DUPLICATE: 3016892

Parameter	Units	92497125001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	260	295	13	10	D6

SAMPLE DUPLICATE: 3016893

Parameter	Units	92497141008 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	81.0	59.0	31	10	D6

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(770)734-4200

QUALITY CONTROL DATA

Project: YATES AP-1
Pace Project No.: 92497144

QC Batch: 569219
QC Batch Method: EPA 300.0 Rev 2.1 1993
Analysis Method: EPA 300.0 Rev 2.1 1993
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92497144001, 92497144002, 92497144003, 92497144004, 92497144005, 92497144006, 92497144007, 92497144008

METHOD BLANK: 3015975 Matrix: Water
Associated Lab Samples: 92497144001, 92497144002, 92497144003, 92497144004, 92497144005, 92497144006, 92497144007, 92497144008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	09/26/20 17:29	
Fluoride	mg/L	ND	0.10	0.050	09/26/20 17:29	
Sulfate	mg/L	ND	1.0	0.50	09/26/20 17:29	

LABORATORY CONTROL SAMPLE: 3015976

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	53.8	108	90-110	
Fluoride	mg/L	2.5	2.7	110	90-110	
Sulfate	mg/L	50	53.8	108	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3015977 3015978

Parameter	Units	92497568001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	208	50	50	258	258	101	99	90-110	0	10	
Fluoride	mg/L	ND	2.5	2.5	3.0	2.9	118	116	90-110	1	10	M1
Sulfate	mg/L	1.7	50	50	59.4	59.5	116	116	90-110	0	10	M1

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3015979 3015980

Parameter	Units	92497141009 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	9.3	50	50	68.1	67.4	118	116	90-110	1	10	M1
Fluoride	mg/L	ND	2.5	2.5	3.0	2.9	119	117	90-110	1	10	M1
Sulfate	mg/L	ND	50	50	58.7	58.0	117	115	90-110	1	10	M1

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Peachtree Corners, GA 30092
(770)734-4200

QUALIFIERS

Project: YATES AP-1
Pace Project No.: 92497144

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - 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.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

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

D6	The precision between the sample and sample duplicate exceeded laboratory control limits.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

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110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: YATES AP-1
Pace Project No.: 92497144

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92497144001	**YGWA-47 (092220)**				
92497144002	**YGWC-52 (092220)**				
92497144003	**YGWC-44 (092220)**				
92497144004	**YGWC-45 (092320)**				
92497144005	**YGWC-46A (092320)**				
92497144001	**YGWA-47 (092220)**	EPA 3010A	569429	EPA 6010D	569491
92497144002	**YGWC-52 (092220)**	EPA 3010A	569429	EPA 6010D	569491
92497144003	**YGWC-44 (092220)**	EPA 3010A	569429	EPA 6010D	569491
92497144004	**YGWC-45 (092320)**	EPA 3010A	569429	EPA 6010D	569491
92497144005	**YGWC-46A (092320)**	EPA 3010A	569429	EPA 6010D	569491
92497144006	**DUP (092320)**	EPA 3010A	569429	EPA 6010D	569491
92497144007	**FIELD BLANK (092320)**	EPA 3010A	569429	EPA 6010D	569491
92497144008	**EQUIPMENT BLANK (092320)**	EPA 3010A	569429	EPA 6010D	569491
92497144001	**YGWA-47 (092220)**	EPA 3005A	569382	EPA 6020B	569504
92497144002	**YGWC-52 (092220)**	EPA 3005A	569382	EPA 6020B	569504
92497144003	**YGWC-44 (092220)**	EPA 3005A	569382	EPA 6020B	569504
92497144004	**YGWC-45 (092320)**	EPA 3005A	569382	EPA 6020B	569504
92497144005	**YGWC-46A (092320)**	EPA 3005A	569382	EPA 6020B	569504
92497144006	**DUP (092320)**	EPA 3005A	569382	EPA 6020B	569504
92497144007	**FIELD BLANK (092320)**	EPA 3005A	569382	EPA 6020B	569504
92497144008	**EQUIPMENT BLANK (092320)**	EPA 3005A	569382	EPA 6020B	569504
92497144001	**YGWA-47 (092220)**	SM 2450C-2011	569139		
92497144002	**YGWC-52 (092220)**	SM 2450C-2011	569139		
92497144003	**YGWC-44 (092220)**	SM 2450C-2011	569139		
92497144004	**YGWC-45 (092320)**	SM 2450C-2011	569386		
92497144005	**YGWC-46A (092320)**	SM 2450C-2011	569386		
92497144006	**DUP (092320)**	SM 2450C-2011	569386		
92497144007	**FIELD BLANK (092320)**	SM 2450C-2011	569386		
92497144008	**EQUIPMENT BLANK (092320)**	SM 2450C-2011	569386		
92497144001	**YGWA-47 (092220)**	EPA 300.0 Rev 2.1 1993	569219		
92497144002	**YGWC-52 (092220)**	EPA 300.0 Rev 2.1 1993	569219		
92497144003	**YGWC-44 (092220)**	EPA 300.0 Rev 2.1 1993	569219		
92497144004	**YGWC-45 (092320)**	EPA 300.0 Rev 2.1 1993	569219		
92497144005	**YGWC-46A (092320)**	EPA 300.0 Rev 2.1 1993	569219		
92497144006	**DUP (092320)**	EPA 300.0 Rev 2.1 1993	569219		
92497144007	**FIELD BLANK (092320)**	EPA 300.0 Rev 2.1 1993	569219		
92497144008	**EQUIPMENT BLANK (092320)**	EPA 300.0 Rev 2.1 1993	569219		

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Sample Condition Upon Receipt

Pace Analytical

Client Name: GA Power

WO#: 92497144

92497144

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☑ Client ☐ Commercial ☐ Pace Oth

Tracking #: _____

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

Proj. Name:

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☑ None ☐ Other _____

Thermometer Used 230

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

Cooler Temperature 3.4°C

Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: 9/23/2004

Temp should be above freezing to 6°C

Comments:

Chain of Custody Present:	☑Yes	☐No	☐N/A
Chain of Custody Filled Out:	☑Yes	☐No	☐N/A
Chain of Custody Relinquished:	☑Yes	☐No	☐N/A
Sampler Name & Signature on COC:	☑Yes	☐No	☐N/A
Samples Arrived within Hold Time:	☑Yes	☐No	☐N/A
Short Hold Time Analysis (<72hr):	☐Yes	☑No	☐N/A
Rush Turn Around Time Requested:	☐Yes	☑No	☐N/A
Sufficient Volume:	☑Yes	☐No	☐N/A
Correct Containers Used:	☑Yes	☐No	☐N/A
-Pace Containers Used:	☑Yes	☐No	☐N/A
Containers Intact:	☑Yes	☐No	☐N/A
Filtered volume received for Dissolved tests	☐Yes	☐No	☑N/A
Sample Labels match COC:	☑Yes	☐No	☐N/A
-Includes date/time/ID/Analysis Matrix: W			
All containers needing preservation have been checked.	☑Yes	☐No	☐N/A
All containers needing preservation are found to be in compliance with EPA recommendation.	☑Yes	☐No	☐N/A
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	☐Yes	☑No	
Samples checked for dechlorination:	☐Yes	☐No	☑N/A
Headspace in VOA Vials (>6mm):	☐Yes	☐No	☑N/A
Trip Blank Present:	☐Yes	☐No	☑N/A
Trip Blank Custody Seals Present	☐Yes	☐No	☑N/A
Pace Trip Blank Lot # (if purchased):			

	Initial when completed	Lot # of added preservative
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		
11.		
12.		
13.		
14.		
15.		
16.		

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

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____ **Date:** _____

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

F-ALLC003rev 3, 11September2006

Pace Analytical	Document Name: Bottle Identification Form (BIF)	Document Issued: March 14, 2019 Page 1 of 1
	Document No.: F-CAR-CS-043-Rev.00	Issuing Authority: Pace Carolinas Quality Office

*Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.
Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC, LLHg
**Bottom half of box is to list number of bottle

Project # WO# : 92497144

PM: KLH1 Due Date: 10/07/20

CLIENT: GA-GA Power

Matrix	Items	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4C-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass Jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	AG3A(DG3A)-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unp (N/A)	DG9P-40 mL VOA H3PO4 (N/A)	VOAK (6 vials per kit)-5035 kit (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A – lab)	SP2T-250 mL Sterile Plastic (N/A – lab)	BP1N	BP3A-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved vials (N/A)	VSGU-20 mL Scintillation vials (N/A)
	1		1	1			1																			2		
	2		1	1			1																			2		
	3		1	1			1																			2		
	4		1	1			1																			2		
	5		1	1			1																			2		
	6		1	1			1																			2		
	7		1	1			1																			2		
	8		1	1			1																			2		
	9																											
	10																											
	11																											
	12																											

pH Adjustment Log for Preserved Samples

Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	Lot

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 Of
Out of hold, incorrect preservative, out of temp, incorrect containers.

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page : 1 Of 1

Section A
Required Client Information:
Company: Georgia Power
Address: 1070 Bridge Mill Ave
Marion, GA 30114
Email:
Phone: (770)384-6526 Fax:
Requested Due Date:

Section B
Required Project Information:
Report To: Becky Sleever
Copy To:
Purchase Order #:
Project Name: Yates AP-1
Project #:

Section C
Invoice Information:
Attention:
Company Name:
Address:
Pace Quote:
Pace Project Manager: kevin.herring@pacelabs.com
Pace Profile #: 10840

Regulatory Agency:
State / Location: GA

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	TDS	Anions	App III & IV Metals	RAD 9315/9320	Residual Chlorine (Y/N)	92497144
1	YGWA-47 (092220)	WT	G			9-22	10:15		5	X		X							x	x	x	x		pH: 5.46
2	YGWC-52 (092220)	WT	G			9-22	13:45		5	X		X							x	x	x	x		pH: 5.91
3	YGWC-44 (092220)	WT	G			9-22	16:48		5	X		X							x	x	x	x		pH: 5.53
4	YGWC-45 (092320)	WT	G			9-23	9:15		5	X		X							x	x	x	x		pH: 6.57
5	YGWC-45A (092320)	WT	G			9-23	11:05		5	X		X							x	x	x	x		6.81 : pH
6	DUP (092320)	WT	G			9-23	—		5	X		X							x	x	x	x		1
7	FIELD BLANK (092320)	WT	G			9-23	9:00		5	X		X							x	x	x	x		1
8	EQUIPMENT BLANK (092320)	WT	G			9-23	10:35		5	X		X							x	x	x	x		1
9																								
10																								
11																								
12																								

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
Se, Tl, Cd - no analysis	Katie Pupkiewicz	9/23/20	1740	Charles Hunt	9/23/20	1740	

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: Katie Pupkiewicz
SIGNATURE of SAMPLER: Katie Pupkiewicz DATE Signed: 9/23/2020

TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

October 2020

Baseline Event (YGWC-46A, YGWC-52)

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

October 29, 2020

Ms. Lauren Petty
Southern Co. Services
42 Inverness Center Parkway
Birmingham, AL 35242

RE: Project: YATES AP-1 RADS
Pace Project No.: 92499363

Dear Ms. Petty:

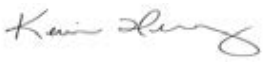
Enclosed are the analytical results for sample(s) received by the laboratory on October 07, 2020. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Greensburg

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

Sincerely,



Kevin Herring
kevin.herring@pacelabs.com
1(704)875-9092
HORIZON Database Administrator

Enclosures

cc: Joju Abraham, Georgia Power-CCR
Geoffrey Gay, ARCADIS - Atlanta
Kristen Jurinko
Kelley Sharpe, ARCADIS - Atlanta
Alex Simpson, Arcadis
Samantha Thomas
Maribel Vital

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110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

CERTIFICATIONS

Project: YATES AP-1 RADS
Pace Project No.: 92499363

Pace Analytical Services Pennsylvania
1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
Delaware Certification
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Florida: Cert E871149 SEKS WET
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA180012
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: 2017020
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572018-1
New Hampshire/TNI Certification #: 297617
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-010
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: 02867
Texas/TNI Certification #: T104704188-17-3
Utah/TNI Certification #: PA014572017-9
USDA Soil Permit #: P330-17-00091
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 9526
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad
Wyoming Certification #: 8TMS-L

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SAMPLE SUMMARY

Project: YATES AP-1 RADS
Pace Project No.: 92499363

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92499363001	**YGWC-46A (100720)**	Water	10/07/20 12:20	10/07/20 17:43
92499363002	**YGWC-52 (100720)**	Water	10/07/20 10:55	10/07/20 17:43

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SAMPLE ANALYTE COUNT

Project: YATES AP-1 RADS
Pace Project No.: 92499363

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92499363001	**YGWC-46A (100720)**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
92499363002	**YGWC-52 (100720)**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA

PASI-PA = Pace Analytical Services - Greensburg

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SUMMARY OF DETECTION

Project: YATES AP-1 RADS
Pace Project No.: 92499363

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92499363001	**YGWC-46A (100720)**					
EPA 9315	Radium-226	1.11 ± 0.258 (0.231) C:94% T:NA	pCi/L		10/19/20 18:23	
EPA 9320	Radium-228	0.699 ± 0.551 (1.10) C:76% T:85%	pCi/L		10/27/20 15:00	
Total Radium Calculation	Total Radium	1.81 ± 0.809 (1.33)	pCi/L		10/28/20 15:13	
92499363002	**YGWC-52 (100720)**					
EPA 9315	Radium-226	0.0639 ± 0.145 (0.288) C:87% T:NA	pCi/L		10/19/20 18:23	
EPA 9320	Radium-228	0.755 ± 0.607 (1.21) C:73% T:81%	pCi/L		10/27/20 15:00	
Total Radium Calculation	Total Radium	0.819 ± 0.752 (1.50)	pCi/L		10/28/20 15:13	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: YATES AP-1 RADS
Pace Project No.: 92499363

Sample: YGWC-46A (100720) **Lab ID: 92499363001** Collected: 10/07/20 12:20 Received: 10/07/20 17:43 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	**1.11 ± 0.258 (0.231) C:94% T:NA**	pCi/L	10/19/20 18:23	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.699 ± 0.551 (1.10) C:76% T:85%**	pCi/L	10/27/20 15:00	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.81 ± 0.809 (1.33)**	pCi/L	10/28/20 15:13	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: YATES AP-1 RADS
Pace Project No.: 92499363

Sample: YGWC-52 (100720) **Lab ID: 92499363002** Collected: 10/07/20 10:55 Received: 10/07/20 17:43 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	**0.0639 ± 0.145 (0.288) C:87% T:NA**	pCi/L	10/19/20 18:23	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.755 ± 0.607 (1.21) C:73% T:81%**	pCi/L	10/27/20 15:00	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.819 ± 0.752 (1.50)**	pCi/L	10/28/20 15:13	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: YATES AP-1 RADS
Pace Project No.: 92499363

QC Batch: 418550
QC Batch Method: EPA 9315
Analysis Method: EPA 9315
Analysis Description: 9315 Total Radium
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 92499363001, 92499363002

METHOD BLANK: 2023109 Matrix: Water
Associated Lab Samples: 92499363001, 92499363002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0638 ± 0.107 (0.209) C:94% T:NA	pCi/L	10/19/20 18:23	

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

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: YATES AP-1 RADS
Pace Project No.: 92499363

QC Batch: 418553
QC Batch Method: EPA 9320
Analysis Method: EPA 9320
Analysis Description: 9320 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 92499363001, 92499363002

METHOD BLANK: 2023116
Matrix: Water
Associated Lab Samples: 92499363001, 92499363002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.454 ± 0.339 (0.661) C:71% T:93%	pCi/L	10/27/20 11:52	

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

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: YATES AP-1 RADS
Pace Project No.: 92499363

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - 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.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

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.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: YATES AP-1 RADS
Pace Project No.: 92499363

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92499363001	**YGWC-46A (100720)**	EPA 9315	418550		
92499363002	**YGWC-52 (100720)**	EPA 9315	418550		
92499363001	**YGWC-46A (100720)**	EPA 9320	418553		
92499363002	**YGWC-52 (100720)**	EPA 9320	418553		
92499363001	**YGWC-46A (100720)**	Total Radium Calculation	420676		
92499363002	**YGWC-52 (100720)**	Total Radium Calculation	420676		

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Sample Condition Upon Receipt

Pace Analytical

Client Name: GA Power

WO# : 92499363

92499363

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other

Tracking #: _____

Proj. Name:

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

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☐ None ☑ Other Ziploc

Thermometer Used THR230 Type of Ice: ~~Wet~~ Blue None ☐ Samples on ice, cooling process has begun

Cooler Temperature 3.1 Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: KRW 12/2/20

Temp should be above freezing to 6°C

Comments:

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

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

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____ **Date:** _____

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

F-ALLC003rev.3, 11September2006

Pace Analytical	Document Name: Bottle Identification Form (BIF)	Document Issued: March 14, 2019 Page 1 of 1
	Document No.: F-CAR-CS-043-Rev.00	Issuing Authority: Pace Carolinas Quality Office

*Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.

Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC, LLHg

**Bottom half of box is to list number of bottle

Project # **WO# : 92499363**

PM: KLH1 Due Date: 10/28/20

CLIENT: GA-GA Power

Matrix	Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4C-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	AG3A(DG3A)-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unp (N/A)	DG9P-40 mL VOA H3PO4 (N/A)	VOAK (6 vials per kit)-5035 kit (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A - lab)	SP2T-250 mL Sterile Plastic (N/A - lab)	82 Rad - BP1N2	BP3A-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved vials (N/A)	VSGU-20 mL Scintillation vials (N/A)
	1		—	—			—																					
	2		—	—			—																					
	3																											
	4																											
	5																											
	6																											
	7																											
	8																											
	9																											
	10																											
	11																											
	12																											

pH Adjustment Log for Preserved Samples

Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	Lot

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 C
Out of hold, incorrect preservative, out of temp, incorrect containers.

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page : 1 Of 1

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	Georgia Power	Report To:	Kelley Sharpe	Attention:	
Address:	2839 Paces Ferry Rd	Copy To:		Company Name:	
	anta, GA 30339			Address:	
Email:	kelley.sharpe@arcadis.com	Purchase Order #:		Pace Quote:	
Phone:	(770)384-6584 Fax	Project Name:	Yates AP-1	Pace Project Manager:	kevin.herring@pacelabs.com
Requested Due Date:		Project #:		Pace Profile #:	10840

Regulatory Agency: | State / Location: GA

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	App III & IV Metals	Cl, F, SO4	TDS	RAD 831/8320	Residual Chlorine (Y/N)	42499363
1	YGWC-46A (100720)	WT		10/7	1440														X	X	X	X		
2	YGWC-52 (100720)	WT		10/7	1255														X	X	X	X		
3																								
4																								
5																								
6																								
7																								
8																								
9																								
10																								
11																								
12																								

MATRIX: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Other OT; Tissue TS

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
	B. Steven / Arcadis	10/7/20		Charles Hinds	10/7/20	1743	3.1	Y	N	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Becky Steven

SIGNATURE of SAMPLER:

DATE Signed: 10/7/20

Quality Control Sample Performance Assessment

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Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test:	Ra-226
Analyst:	LAL
Date:	10/19/2020
Worklist:	56785
Matrix:	DW

Method Blank Assessment	
MB Sample ID	2023109
MB concentration:	0.064
M/B Counting Uncertainty:	0.107
MB MDC:	0.209
MB Numerical Performance Indicator:	1.17
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	Y
	LCS56785	LCSD56785
Count Date:	10/19/2020	10/19/2020
Spike I.D.:	19-033	19-033
Decay Corrected Spike Concentration (pCi/mL):	24.043	24.043
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.503	0.501
Target Conc. (pCi/L, g, F):	4.778	4.800
Uncertainty (Calculated):	0.057	0.058
Result (pCi/L, g, F):	4.258	4.127
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.347	0.379
Numerical Performance Indicator:	-2.90	-3.44
Percent Recovery:	89.12%	85.99%
Status vs Numerical Indicator:	N/A	N/A
Status vs Recovery:	Pass	Pass
Upper % Recovery Limits:	125%	125%
Lower % Recovery Limits:	75%	75%

Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
Sample Collection Date:		
Sample I.D.		
Sample MS I.D.		
Sample MSD I.D.		
Spike I.D.:		
MS/MSD Decay Corrected Spike Concentration (pCi/mL):		
Spike Volume Used in MS (mL):		
Spike Volume Used in MSD (mL):		
MS Aliquot (L, g, F):		
MS Target Conc.(pCi/L, g, F):		
MSD Aliquot (L, g, F):		
MSD Target Conc. (pCi/L, g, F):		
MS Spike Uncertainty (calculated):		
MSD Spike Uncertainty (calculated):		
Sample Result:		
Sample Result Counting Uncertainty (pCi/L, g, F):		
Sample Matrix Spike Result:		
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):		
Sample Matrix Spike Duplicate Result:		
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):		
MS Numerical Performance Indicator:		
MSD Numerical Performance Indicator:		
MS Percent Recovery:		
MSD Percent Recovery:		
MS Status vs Numerical Indicator:		
MSD Status vs Numerical Indicator:		
MS Status vs Recovery:		
MSD Status vs Recovery:		
MS/MSD Upper % Recovery Limits:		
MS/MSD Lower % Recovery Limits:		

Duplicate Sample Assessment		
Sample I.D.:	LCS56785	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.	LCSD56785	
Sample Result (pCi/L, g, F):	4.258	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.347	
Sample Duplicate Result (pCi/L, g, F):	4.127	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.379	
Are sample and/or duplicate results below RL?	NO	
Duplicate Numerical Performance Indicator:	0.500	92499068016
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	3.58%	92499068016DUP
Duplicate Status vs Numerical Indicator:	N/A	
Duplicate Status vs RPD:	Pass	
% RPD Limit:	25%	

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

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

Comments:

10/20/2020

LAM 10/20/2020

Quality Control Sample Performance Assessment

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Test: Ra-226
Analyst: LAL
Date: 10/19/2020
Worklist: 56785
Matrix: DW

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	2023109
MB concentration:	0.064
M/B Counting Uncertainty:	0.107
MB MDC:	0.209
MB Numerical Performance Indicator:	1.17
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	N
	LCS56785	LCSD56785
Count Date:	10/19/2020	
Spike I.D.:	19-033	
Decay Corrected Spike Concentration (pCi/mL):	24.043	
Volume Used (mL):	0.10	
Aliquot Volume (L, g, F):	0.503	
Target Conc. (pCi/L, g, F):	4.778	
Uncertainty (Calculated):	0.057	
Result (pCi/L, g, F):	4.258	
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.347	
Numerical Performance Indicator:	-2.90	
Percent Recovery:	89.12%	
Status vs Numericel Indicator:	N/A	
Status vs Recovery:	Pass	
Upper % Recovery Limits:	125%	
Lower % Recovery Limits:	75%	

Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
Sample Collection Date:		
Sample I.D.		
Sample MS I.D.		
Sample MSD I.D.		
Spike I.D.:		
MS/MSD Decay Corrected Spike Concentration (pCi/mL):		
Spike Volume Used in MS (mL):		
Spike Volume Used in MSD (mL):		
MS Aliquot (L, g, F):		
MS Target Conc.(pCi/L, g, F):		
MSD Aliquot (L, g, F):		
MSD Target Conc. (pCi/L, g, F):		
MS Spike Uncertainty (calculated):		
MSD Spike Uncertainty (calculated):		
Sample Result:		
Sample Result Counting Uncertainty (pCi/L, g, F):		
Sample Matrix Spike Result:		
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):		
Sample Matrix Spike Duplicate Result:		
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):		
MS Numerical Performance Indicator:		
MSD Numerical Performance Indicator:		
MS Percent Recovery:		
MSD Percent Recovery:		
MS Status vs Numerical Indicator:		
MSD Status vs Numerical Indicator:		
MS Status vs Recovery:		
MSD Status vs Recovery:		
MS/MSD Upper % Recovery Limits:		
MS/MSD Lower % Recovery Limits:		

Duplicate Sample Assessment		
Sample I.D.:	92499068016	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.	92499068016DUP	
Sample Result (pCi/L, g, F):	0.374	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.138	
Sample Duplicate Result (pCi/L, g, F):	0.488	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.176	
Are sample and/or duplicate results below RL?	See Below ##	
Duplicate Numerical Performance Indicator:	-1.000	92499068016
Duplicate RPD:	26.54%	92499068016DUP
Duplicate Status vs Numerical Indicator:	N/A	
Duplicate Status vs RPD:	Fail***	
% RPD Limit:	25%	

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

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

Comments:

~~***Batch must be re-prepped due to unacceptable precision.~~ N/A
LAM 10/20/2020

10/20/2020
LAM 10/20/2020

Quality Control Sample Performance Assessment

Pace Analytical
www.pacelabs.com

Test:	Ra-228
Analyst:	VAL
Date:	10/21/2020
Worklist:	56787
Matrix:	WT

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	2023116
MB concentration:	0.454
M/B 2 Sigma CSU:	0.339
MB MDC:	0.661
MB Numerical Performance Indicator:	2.62
MB Status vs Numerical Indicator:	Warning
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	N
	LCS56787	LCSD56787
Count Date:	10/27/2020	
Spike I.D.:	20-030	
Decay Corrected Spike Concentration (pCi/mL):	37.867	
Volume Used (mL):	0.10	
Aliquot Volume (L, g, F):	0.810	
Target Conc. (pCi/L, g, F):	4.675	
Uncertainty (Calculated):	0.229	
Result (pCi/L, g, F):	4.038	
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	0.957	
Numerical Performance Indicator:	-1.27	
Percent Recovery:	86.38%	
Status vs Numerical Indicator:	N/A	
Status vs Recovery:	Pass	
Upper % Recovery Limits:	135%	
Lower % Recovery Limits:	60%	

Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
Sample Collection Date:		
Sample I.D.		
Sample MS I.D.		
Sample MSD I.D.		
Spike I.D.:		
MS/MSD Decay Corrected Spike Concentration (pCi/mL):		
Spike Volume Used in MS (mL):		
Spike Volume Used in MSD (mL):		
MS Aliquot (L, g, F):		
MS Target Conc.(pCi/L, g, F):		
MSD Aliquot (L, g, F):		
MSD Target Conc. (pCi/L, g, F):		
MS Spike Uncertainty (calculated):		
MSD Spike Uncertainty (calculated):		
Sample Result:		
Sample Result 2 Sigma CSU (pCi/L, g, F):		
Sample Matrix Spike Result:		
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):		
Sample Matrix Spike Duplicate Result:		
Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):		
MS Numerical Performance Indicator:		
MSD Numerical Performance Indicator:		
MS Percent Recovery:		
MSD Percent Recovery:		
MS Status vs Numerical Indicator:		
MSD Status vs Numerical Indicator:		
MS Status vs Recovery:		
MSD Status vs Recovery:		
MS/MSD Upper % Recovery Limits:		
MS/MSD Lower % Recovery Limits:		

Duplicate Sample Assessment		
Sample I.D.:	92499068018	Enter Duplicate
Duplicate Sample I.D.	92499068018DUP	sample IDs if
Sample Result (pCi/L, g, F):	-0.013	other than
Sample Result 2 Sigma CSU (pCi/L, g, F):	0.311	LCS/LCSD in
Sample Duplicate Result (pCi/L, g, F):	0.279	the space below.
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	0.332	
Are sample and/or duplicate results below RL?	See Below ##	
Duplicate Numerical Performance Indicator:	-1.256	92499068018
Duplicate RPD:	219.02%	92499068018DUP
Duplicate Status vs Numerical Indicator:	Pass	
Duplicate Status vs RPD:	Fail***	
% RPD Limit:	36%	

Matrix Spike/Matrix Spike Duplicate Sample Assessment		
Sample I.D.		
Sample MS I.D.		
Sample MSD I.D.		
Sample Matrix Spike Result:		
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):		
Sample Matrix Spike Duplicate Result:		
Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):		
Duplicate Numerical Performance Indicator:		
(Based on the Percent Recoveries) MS/ MSD Duplicate RPD:		
MS/ MSD Duplicate Status vs Numerical Indicator:		
MS/ MSD Duplicate Status vs RPD:		
% RPD Limit:		

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

Comments:

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

October 15, 2020

Ms. Lauren Petty
Southern Co. Services
42 Inverness Center Parkway
Birmingham, AL 35242

RE: Project: YATES AP-1
Pace Project No.: 92499364

Dear Ms. Petty:

Enclosed are the analytical results for sample(s) received by the laboratory on October 07, 2020. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Asheville
- Pace Analytical Services - Charlotte
- Pace Analytical Services - Peachtree Corners, GA

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

Sincerely,

Kevin Herring
kevin.herring@pacelabs.com
1(704)875-9092
HORIZON Database Administrator

Enclosures

cc: Joju Abraham, Georgia Power-CCR
Geoffrey Gay, ARCADIS - Atlanta
Kristen Jurinko
Kelley Sharpe, ARCADIS - Atlanta
Alex Simpson, Arcadis
Samantha Thomas
Maribel Vital

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CERTIFICATIONS

Project: YATES AP-1
Pace Project No.: 92499364

Pace Analytical Services Charlotte
9800 Kincey Ave. Ste 100, Huntersville, NC 28078
Louisiana/NELAP Certification # LA170028
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12
South Carolina Certification #: 99006001
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
Virginia/VELAP Certification #: 460221

Pace Analytical Services Asheville
2225 Riverside Drive, Asheville, NC 28804
Florida/NELAP Certification #: E87648
Massachusetts Certification #: M-NC030
North Carolina Drinking Water Certification #: 37712
North Carolina Wastewater Certification #: 40
South Carolina Certification #: 99030001
Virginia/VELAP Certification #: 460222

Pace Analytical Services Peachtree Corners
110 Technology Pkwy, Peachtree Corners, GA 30092
Florida DOH Certification #: E87315
Georgia DW Inorganics Certification #: 812
Georgia DW Microbiology Certification #: 812
North Carolina Certification #: 381
South Carolina Certification #: 98011001
Virginia Certification #: 460204

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SAMPLE SUMMARY

Project: YATES AP-1
Pace Project No.: 92499364

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92499364001	**YGWC-46A (100720)**	Water	10/07/20 12:20	10/07/20 17:43
92499364002	**YGWC-52 (100720)**	Water	10/07/20 10:55	10/07/20 17:43

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SAMPLE ANALYTE COUNT

Project: YATES AP-1
Pace Project No.: 92499364

Lab ID	Sample ID	Method	Analysts	Analytes Reported
92499364001	**YGWC-46A (100720)**	EPA 6010D	KH	1
		EPA 6020B	CW1	10
		SM 2450C-2011	AW1	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92499364002	**YGWC-52 (100720)**	EPA 6010D	KH	1
		EPA 6020B	CW1	10
		SM 2450C-2011	AW1	1
		EPA 300.0 Rev 2.1 1993	CDC	3

PASI-A = Pace Analytical Services - Asheville
PASI-C = Pace Analytical Services - Charlotte
PASI-GA = Pace Analytical Services - Peachtree Corners, GA

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SUMMARY OF DETECTION

Project: YATES AP-1
Pace Project No.: 92499364

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92499364001	**YGWC-46A (100720)**					
	Performed by	CUSTOMER			10/08/20 13:52	
	pH	7.06	Std. Units		10/08/20 13:52	
EPA 6010D	Calcium	105	mg/L	1.0	10/09/20 19:25	
EPA 6020B	Arsenic	0.0010J	mg/L	0.0050	10/12/20 18:08	
EPA 6020B	Barium	0.042	mg/L	0.010	10/12/20 18:08	
EPA 6020B	Boron	1.8	mg/L	0.10	10/12/20 18:08	
EPA 6020B	Cobalt	0.0014J	mg/L	0.0050	10/12/20 18:08	
EPA 6020B	Lithium	0.011J	mg/L	0.030	10/12/20 18:08	
EPA 6020B	Molybdenum	0.0024J	mg/L	0.010	10/12/20 18:08	
SM 2450C-2011	Total Dissolved Solids	842	mg/L	20.0	10/08/20 16:06	
EPA 300.0 Rev 2.1 1993	Chloride	28.2	mg/L	1.0	10/10/20 02:54	
EPA 300.0 Rev 2.1 1993	Fluoride	0.13	mg/L	0.10	10/10/20 02:54	
EPA 300.0 Rev 2.1 1993	Sulfate	427	mg/L	9.0	10/10/20 09:32	
92499364002	**YGWC-52 (100720)**					
	Performed by	CUSTOMER			10/08/20 13:52	
	pH	5.87	Std. Units		10/08/20 13:52	
EPA 6010D	Calcium	53.8	mg/L	1.0	10/09/20 19:30	
EPA 6020B	Barium	0.019	mg/L	0.010	10/12/20 18:13	
EPA 6020B	Boron	0.018J	mg/L	0.10	10/12/20 18:13	
EPA 6020B	Chromium	0.00086J	mg/L	0.010	10/12/20 18:13	
EPA 6020B	Cobalt	0.0019J	mg/L	0.0050	10/12/20 18:13	
EPA 6020B	Lithium	0.0041J	mg/L	0.030	10/12/20 18:13	
SM 2450C-2011	Total Dissolved Solids	336	mg/L	10.0	10/08/20 16:06	
EPA 300.0 Rev 2.1 1993	Chloride	4.0	mg/L	1.0	10/10/20 03:10	
EPA 300.0 Rev 2.1 1993	Sulfate	156	mg/L	3.0	10/10/20 09:47	

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ANALYTICAL RESULTS

Project: YATES AP-1
Pace Project No.: 92499364

Sample: YGWC-46A (100720) **Lab ID: 92499364001** Collected: 10/07/20 12:20 Received: 10/07/20 17:43 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		10/08/20 13:52		
pH	**7.06**	Std. Units			1		10/08/20 13:52		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**105**	mg/L	1.0	0.070	1	10/09/20 11:20	10/09/20 19:25	7440-70-2	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00028	1	10/09/20 14:00	10/12/20 18:08	7440-36-0	
Arsenic	**0.0010J**	mg/L	0.0050	0.00078	1	10/09/20 14:00	10/12/20 18:08	7440-38-2	
Barium	**0.042**	mg/L	0.010	0.00071	1	10/09/20 14:00	10/12/20 18:08	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000046	1	10/09/20 14:00	10/12/20 18:08	7440-41-7	
Boron	**1.8**	mg/L	0.10	0.0052	1	10/09/20 14:00	10/12/20 18:08	7440-42-8	
Chromium	ND	mg/L	0.010	0.00055	1	10/09/20 14:00	10/12/20 18:08	7440-47-3	
Cobalt	**0.0014J**	mg/L	0.0050	0.00038	1	10/09/20 14:00	10/12/20 18:08	7440-48-4	
Lead	ND	mg/L	0.0050	0.000036	1	10/09/20 14:00	10/12/20 18:08	7439-92-1	
Lithium	**0.011J**	mg/L	0.030	0.00081	1	10/09/20 14:00	10/12/20 18:08	7439-93-2	
Molybdenum	**0.0024J**	mg/L	0.010	0.00069	1	10/09/20 14:00	10/12/20 18:08	7439-98-7	
2540C Total Dissolved Solids	Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**842**	mg/L	20.0	20.0	1		10/08/20 16:06		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**28.2**	mg/L	1.0	0.60	1		10/10/20 02:54	16887-00-6	
Fluoride	**0.13**	mg/L	0.10	0.050	1		10/10/20 02:54	16984-48-8	
Sulfate	**427**	mg/L	9.0	4.5	9		10/10/20 09:32	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: YATES AP-1
Pace Project No.: 92499364

Sample: YGWC-52 (100720) **Lab ID: 92499364002** Collected: 10/07/20 10:55 Received: 10/07/20 17:43 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Charlotte								
Performed by	**CUSTOMER**				1		10/08/20 13:52		
pH	**5.87**	Std. Units			1		10/08/20 13:52		
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**53.8**	mg/L	1.0	0.070	1	10/09/20 11:20	10/09/20 19:30	7440-70-2	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00028	1	10/09/20 14:00	10/12/20 18:13	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	10/09/20 14:00	10/12/20 18:13	7440-38-2	
Barium	**0.019**	mg/L	0.010	0.00071	1	10/09/20 14:00	10/12/20 18:13	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000046	1	10/09/20 14:00	10/12/20 18:13	7440-41-7	
Boron	**0.018J**	mg/L	0.10	0.0052	1	10/09/20 14:00	10/12/20 18:13	7440-42-8	
Chromium	**0.00086J**	mg/L	0.010	0.00055	1	10/09/20 14:00	10/12/20 18:13	7440-47-3	
Cobalt	**0.0019J**	mg/L	0.0050	0.00038	1	10/09/20 14:00	10/12/20 18:13	7440-48-4	
Lead	ND	mg/L	0.0050	0.000036	1	10/09/20 14:00	10/12/20 18:13	7439-92-1	
Lithium	**0.0041J**	mg/L	0.030	0.00081	1	10/09/20 14:00	10/12/20 18:13	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	10/09/20 14:00	10/12/20 18:13	7439-98-7	
2540C Total Dissolved Solids	Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**336**	mg/L	10.0	10.0	1		10/08/20 16:06		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**4.0**	mg/L	1.0	0.60	1		10/10/20 03:10	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		10/10/20 03:10	16984-48-8	
Sulfate	**156**	mg/L	3.0	1.5	3		10/10/20 09:47	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: YATES AP-1
Pace Project No.: 92499364

QC Batch: 572126
QC Batch Method: EPA 3010A
Analysis Method: EPA 6010D
Analysis Description: 6010D ATL
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92499364001, 92499364002

METHOD BLANK: 3030150 Matrix: Water
Associated Lab Samples: 92499364001, 92499364002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.070	10/09/20 18:09	

LABORATORY CONTROL SAMPLE: 3030151

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	0.96J	96	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3030152 3030153

Parameter	Units	92499650004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Calcium	mg/L	1330 ug/L	1	1	2.2	2.3	90	96	75-125	3	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3030154 3030155

Parameter	Units	92499466005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Calcium	mg/L	1660 ug/L	1	1	10.4	10.3	875	860	75-125	2	20	M1

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

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: YATES AP-1
Pace Project No.: 92499364

QC Batch: 572214
QC Batch Method: EPA 3005A
Analysis Method: EPA 6020B
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92499364001, 92499364002

METHOD BLANK: 3030726 Matrix: Water
Associated Lab Samples: 92499364001, 92499364002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	0.00040J	0.0030	0.00028	10/12/20 16:10	
Arsenic	mg/L	ND	0.0050	0.00078	10/12/20 16:10	
Barium	mg/L	ND	0.010	0.00071	10/12/20 16:10	
Beryllium	mg/L	ND	0.0030	0.000046	10/12/20 16:10	
Boron	mg/L	ND	0.10	0.0052	10/12/20 16:10	
Chromium	mg/L	ND	0.010	0.00055	10/12/20 16:10	
Cobalt	mg/L	ND	0.0050	0.00038	10/12/20 16:10	
Lead	mg/L	ND	0.0050	0.000036	10/12/20 16:10	
Lithium	mg/L	ND	0.030	0.00081	10/12/20 16:10	
Molybdenum	mg/L	ND	0.010	0.00069	10/12/20 16:10	

LABORATORY CONTROL SAMPLE: 3030727

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.11	107	80-120	
Arsenic	mg/L	0.1	0.093	93	80-120	
Barium	mg/L	0.1	0.096	96	80-120	
Beryllium	mg/L	0.1	0.098	98	80-120	
Boron	mg/L	1	1.0	102	80-120	
Chromium	mg/L	0.1	0.095	95	80-120	
Cobalt	mg/L	0.1	0.093	93	80-120	
Lead	mg/L	0.1	0.095	95	80-120	
Lithium	mg/L	0.1	0.098	98	80-120	
Molybdenum	mg/L	0.1	0.097	97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3030728 3030729

Parameter	Units	92499073004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	mg/L	ND	0.1	0.1	0.11	0.11	107	110	75-125	2	20	
Arsenic	mg/L	ND	0.1	0.1	0.093	0.096	93	96	75-125	3	20	
Barium	mg/L	0.015	0.1	0.1	0.11	0.11	96	98	75-125	1	20	
Beryllium	mg/L	ND	0.1	0.1	0.091	0.091	91	91	75-125	0	20	
Boron	mg/L	0.015J	1	1	0.94	0.94	92	92	75-125	0	20	
Chromium	mg/L	0.00072J	0.1	0.1	0.095	0.097	94	96	75-125	2	20	
Cobalt	mg/L	ND	0.1	0.1	0.092	0.094	92	94	75-125	2	20	
Lead	mg/L	ND	0.1	0.1	0.095	0.097	95	97	75-125	2	20	

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REPORT OF LABORATORY ANALYSIS

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110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: YATES AP-1
Pace Project No.: 92499364

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3030728 3030729

Parameter	Units	92499073004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Lithium	mg/L	ND	0.1	0.1	0.091	0.091	91	91	75-125	0	20	
Molybdenum	mg/L	ND	0.1	0.1	0.097	0.099	97	99	75-125	2	20	

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(770)734-4200

QUALITY CONTROL DATA

Project: YATES AP-1
Pace Project No.: 92499364

QC Batch: 571887
QC Batch Method: SM 2450C-2011
Analysis Method: SM 2450C-2011
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92499364001, 92499364002

METHOD BLANK: 3029110 Matrix: Water
Associated Lab Samples: 92499364001, 92499364002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	10/08/20 16:05	

LABORATORY CONTROL SAMPLE: 3029111

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	422	106	84-108	

SAMPLE DUPLICATE: 3029112

Parameter	Units	92499390001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	402	438	9	10	

SAMPLE DUPLICATE: 3029113

Parameter	Units	92499073014 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	492	495	1	10	

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Peachtree Corners, GA 30092
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QUALITY CONTROL DATA

Project: YATES AP-1
Pace Project No.: 92499364

QC Batch: 572105
QC Batch Method: EPA 300.0 Rev 2.1 1993
Analysis Method: EPA 300.0 Rev 2.1 1993
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92499364001, 92499364002

METHOD BLANK: 3030083 Matrix: Water
Associated Lab Samples: 92499364001, 92499364002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	10/09/20 21:30	
Fluoride	mg/L	ND	0.10	0.050	10/09/20 21:30	
Sulfate	mg/L	ND	1.0	0.50	10/09/20 21:30	

LABORATORY CONTROL SAMPLE: 3030084

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	52.8	106	90-110	
Fluoride	mg/L	2.5	2.7	108	90-110	
Sulfate	mg/L	50	53.0	106	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3030085 3030086

Parameter	Units	92499073009 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	6.4	50	50	60.6	61.0	108	109	90-110	1	10	
Fluoride	mg/L	ND	2.5	2.5	2.8	2.8	109	110	90-110	1	10	
Sulfate	mg/L	42.4	50	50	96.3	96.7	108	109	90-110	0	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3030087 3030088

Parameter	Units	92499354001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	58.4	50	50	103	103	89	90	90-110	1	10	M1
Fluoride	mg/L	ND	2.5	2.5	2.7	2.8	107	109	90-110	2	10	
Sulfate	mg/L	39.1	50	50	92.8	93.5	107	109	90-110	1	10	

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Peachtree Corners, GA 30092
(770)734-4200

QUALIFIERS

Project: YATES AP-1
Pace Project No.: 92499364

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - 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.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

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

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

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110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: YATES AP-1
Pace Project No.: 92499364

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92499364001	**YGWC-46A (100720)**				
92499364002	**YGWC-52 (100720)**				
92499364001	**YGWC-46A (100720)**	EPA 3010A	572126	EPA 6010D	572182
92499364002	**YGWC-52 (100720)**	EPA 3010A	572126	EPA 6010D	572182
92499364001	**YGWC-46A (100720)**	EPA 3005A	572214	EPA 6020B	572248
92499364002	**YGWC-52 (100720)**	EPA 3005A	572214	EPA 6020B	572248
92499364001	**YGWC-46A (100720)**	SM 2450C-2011	571887		
92499364002	**YGWC-52 (100720)**	SM 2450C-2011	571887		
92499364001	**YGWC-46A (100720)**	EPA 300.0 Rev 2.1 1993	572105		
92499364002	**YGWC-52 (100720)**	EPA 300.0 Rev 2.1 1993	572105		

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Pace Analytical

Sample Condition Upon Recei

Client Name: GA Power

WO# : 92499364

92499364

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other

Tracking #: _____

Proj. Due Date:
Proj. Name:

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

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☐ None ☑ Other Ziploc

Thermometer Used THR230 Type of Ice: ~~Wet~~ Blue None ☐ Samples on ice, cooling process has begun

Cooler Temperature 3.1 Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: KRW 10/2/20

Temp should be above freezing to 6°C

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

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

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____ **Date:** _____

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

F-ALLC003rev.3, 11September2006

Pace Analytical	Document Name: Bottle Identification Form (BIF)	Document Issued: March 14, 2019 Page 1 of 1
	Document No.: F-CAR-CS-043-Rev.00	Issuing Authority: Pace Carolinas Quality Office

*Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.

Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC, LLHg

**Bottom half of box is to list number of bottle

Project # **WO# : 92499364**

PM: KLH1 Due Date: 10/21/20

CLIENT: GA-GA Power

Matrix	Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4C-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass Jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	AG3A(DG3A)-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unp (N/A)	DG9P-40 mL VOA H3PO4 (N/A)	VOAK (6 vials per kit)-5035 kit (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SPST-125 mL Sterile Plastic (N/A – lab)	SP2T-250 mL Sterile Plastic (N/A – lab)	Rad - BP1N	BP3A-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved vials (N/A)	VSGU-20 mL Scintillation Vials (N/A)
	1		—	—			—																					
	2		—	—			—																					
	3																											
	4																											
	5																											
	6																											
	7																											
	8																											
	9																											
	10																											
	11																											
	12																											

pH Adjustment Log for Preserved Samples

Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	Lot

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 C
Out of hold, incorrect preservative, out of temp, incorrect containers.

CHAIN-OF-CUSTODY / Analytical Request Document

Pace Analytical
www.pacelabs.com

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page : 1 Of 1

Section A — Required Client Information:
Company: Georgia Power
Address: 2839 Paces Ferry Rd
Atlanta, GA 30339
Email: kelley.sharpe@arcadis.com
Phone: (770)384-6584 Fax
Requested Due Date:

Section B — Required Project Information:
Report To: Kelley Sharpe
Copy To:
Purchase Order #:
Project Name: Yates AP-1
Project #:

Section C — Invoice Information:
Attention:
Company Name:
Address:
Pace Quote:
Pace Project Manager: kevin.herring@pacelabs.com,
Pace Profile #: 10840

Regulatory Agency:
State / Location: GA

Valid matrix codes — MATRIX / CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Other OT; Tissue TS

SAMPLE ID — One Character per box. (A-Z, 0-9 / , -) Sample ids must be unique

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP)	Collected Start DATE	Collected Start TIME	Collected End DATE	Collected End TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	App III & IV Metals	Cl, F, SO4	TDS	RAD 9315/9320	Residual Chlorine (Y/N)
1	YGWC-46A (100720)	WT		10/7	[illegible]														x	x	x	x	
2	YGWC-52 (100720)	WT		10/7	1055														x	x	x	x	
3																							
4																							
5																							
6																							
7																							
8																							
9																							
10																							
11																							
12																							

Requested Analysis Filtered (Y/N)

92499364

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
	B. Steven / Arcadis	10/7/20		Claude [illegible]	10/7/20	1743	3.1	Y	N	Y

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: Becky Steever
SIGNATURE of SAMPLER: [signature]
DATE Signed: 10/7/20

November 2020

Baseline Event (YGWC-46A, YGWC-52)

ARCADIS Design & Consultancy for natural and built assets

Georgia Power Co. – Plant Yates

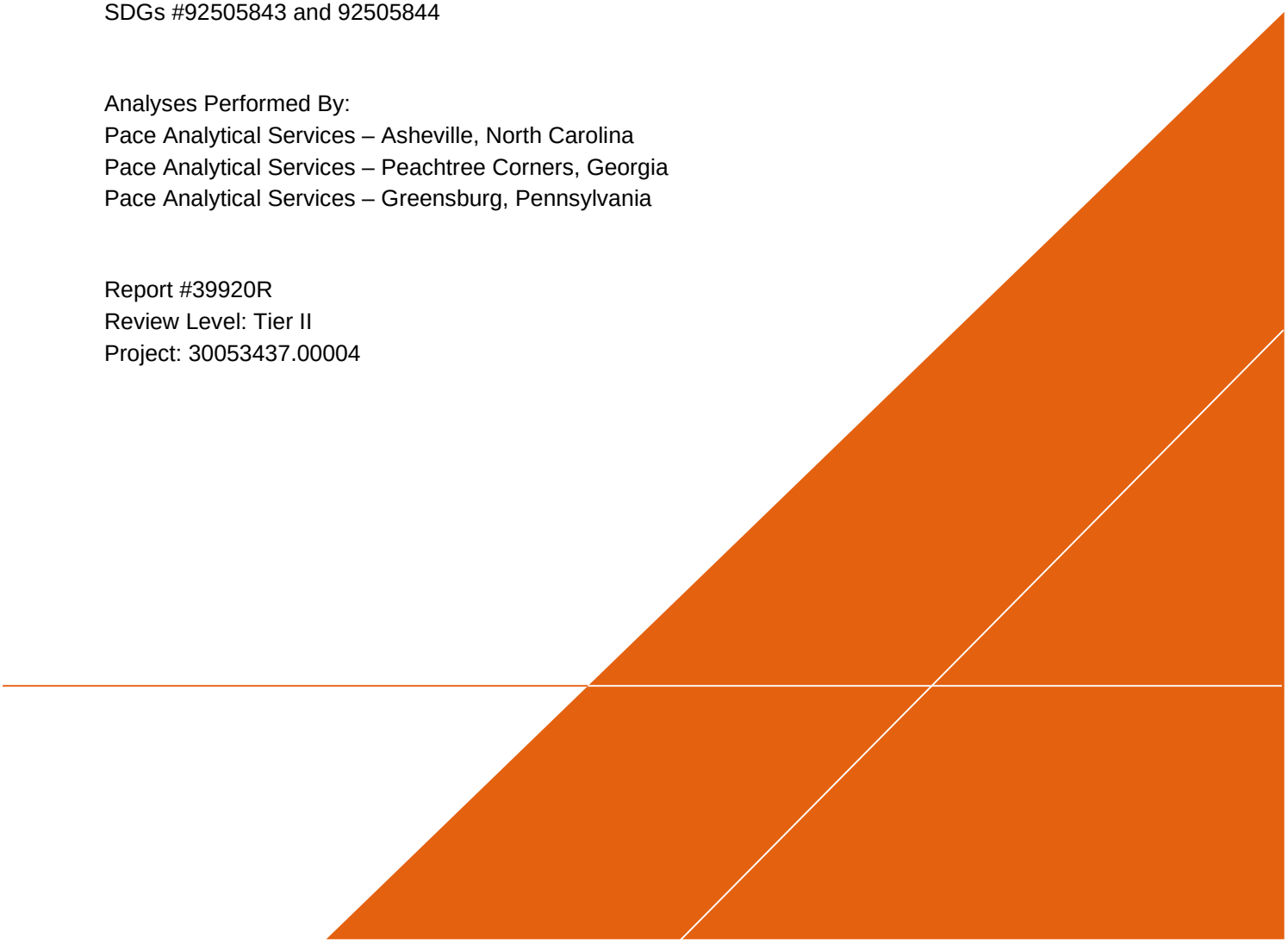
DATA REVIEW

Metals, Radium, and General Chemistry Analyses

SDGs #92505843 and 92505844

Analyses Performed By:
Pace Analytical Services – Asheville, North Carolina
Pace Analytical Services – Peachtree Corners, Georgia
Pace Analytical Services – Greensburg, Pennsylvania

Report #39920R
Review Level: Tier II
Project: 30053437.00004



SUMMARY

This data quality assessment summarizes the review of Sample Delivery Groups (SDGs) #92505843 and 92505844 for samples collected in association with the Georgia Power Company – Plant Yates. The review was conducted as a Tier II evaluation and included review of data package completeness. Only analytical data associated with constituents of concern were reviewed for this validation. Field documentation was not included in this review. Included with this assessment are the chain of custody form and a table summarizing the data validation qualifiers. Analyses were performed on the following samples:

Sample ID	Lab ID	Matrix	Sample Collection Date	Parent Sample	Analysis		
					RAD	MET	GEN CHEM
YGWC-52-20201112	92505843001 92505844001	Water	11/12/2020		X	X	X
YGWC-46A-20201112	92505843002 92505844002	Water	11/12/2020		X	X	X

Notes:

1. Metals and total dissolved solids (TDS) analysis performed by Pace Analytical Services – Peachtree Corners, Georgia.
2. Anions (chloride, fluoride, and sulfate) analysis performed by Pace Analytical Services – Asheville, North Carolina.
3. Radium analysis performed by Pace Analytical Services – Greensburg, Pennsylvania.

ANALYTICAL DATA PACKAGE DOCUMENTATION

The table below is the evaluation of the data package completeness.

Items Reviewed	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
1. Sample receipt condition		X		X	
2. Requested analyses and sample results		X		X	
3. Master tracking list		X		X	
4. Methods of analysis		X		X	
5. Reporting limits		X		X	
6. Sample collection date		X		X	
7. Laboratory sample received date		X		X	
8. Sample preservation verification (as applicable)		X		X	
9. Sample preparation/extraction/analysis dates		X		X	
10. Fully executed Chain-of-Custody (COC) form		X		X	
11. Narrative summary of QA or sample problems provided		X		X	
12. Data Package Completeness and Compliance		X		X	

Note:

QA - Quality Assurance

INORGANIC ANALYSIS INTRODUCTION

Analyses were performed according to United States Environmental Protection Agency (USEPA) SW-846 Methods 6010D, 6020B, 7470A, 9315, and 9320; Standard Method (SM) SM2540C; and USEPA Method 300.0. Data were reviewed in accordance with USEPA Region IV Data Validation Standard Operating Procedures for Contract Laboratory Program Inorganic Data by Inductively Coupled Plasma–Atomic Emission Spectroscopy and Inductively Coupled Plasma–Mass Spectroscopy (September 2011, Rev. 2), USEPA Region IV Data Validation Standard Operating Procedures for Contract Laboratory Program Mercury Data by Cold Vapor Atomic Absorption (September 2011, Rev. 2), and the National Functional Guidelines for Inorganic Superfund Methods Data Review (January2017).

The data review process is an evaluation of data on a technical basis rather than a determination of contract compliance. As such, the standards against which the data are being weighed may differ from those specified in the analytical method. It is assumed that the data package represents the best efforts of the laboratory and that it was already subjected to adequate and sufficient quality review prior to submission.

During the review process, laboratory qualified and unqualified data are verified against the supporting documentation. Based on this evaluation, qualifier codes may be added, deleted, or modified by the data reviewer. Results are qualified with the following codes in accordance with the USEPA National Functional Guidelines:

- Concentration (C) Qualifiers

  U The analyte was analyzed for but not detected. The associated value is the analyte instrument detection limit.

  J The reported value was obtained from a reading less than the reporting limit (RL), but greater than or equal to the method detection limit (MDL).

- Quantitation (Q) Qualifiers

  E The reported value is estimated due to the presence of interference.

  N Spiked sample recovery is not within control limits.

  * Duplicate analysis is not within control limits.

- Validation Qualifiers

  J The analyte was positively identified; however, the associated numerical value is an estimated concentration only.

  UJ The analyte was not detected above the reported sample detection limit. However, the reported limit is approximate and may or may not represent the actual limit of detection.

  UB Analyte considered non-detect at the listed value due to associated blank contamination.

  R The sample results are rejected.

Two facts should be noted by all data users. First, the “R” flag means that the associated value is unusable. In other words, due to significant quality control (QC) problems, the analysis is invalid and provides no information as to whether the compound is present or not. “R” values should not appear on data tables because they cannot be relied upon, even as a last resort. The second fact to keep in mind is that no compound concentration, even if it has passed all QC tests, is guaranteed to be accurate. Strict QC serves to increase confidence in data but any value potentially contains error.

METALS ANALYSES

1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
SW-846 6010D/6020B	Water	180 days from collection to analysis	Cool to <6°C; preserved to a pH of less than 2 s.u.
SW-846 7470A	Water	28 days from collection to analysis	Cool to <6°C; preserved to a pH of less than 2 s.u.

Note:

s.u. = Standard units

All samples were analyzed within the specified holding times.

2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

Metals were not detected above the MDL in the associated blanks; therefore, detected sample results were not associated with blank contamination.

3. Matrix Spike/Matrix Spike Duplicate (MS/MSD)/Laboratory Duplicate Analysis

MS/MSD and laboratory duplicate data are used to assess the precision and accuracy of the analytical method.

3.1 MS/MSD Analysis

All metal analytes must exhibit a percent recovery within the established acceptance limits of 75% to 125%. The MS recovery control limits do not apply for MS performed on sample locations where the analyte's concentration detected in the parent sample exceeds the MS concentration by a factor of four or greater.

The MS/MSD analysis performed using sample YGWC-52-20201112 in association with SW-846 6020B and 7470A analysis exhibited recoveries within the control limits.

The MS/MSD analysis was not performed using a sample from this SDG in association with SW-846 6010D analysis.

3.2 Laboratory Duplicate Analysis

The laboratory duplicate relative percent difference (RPD) criterion is applied when parent and duplicate sample concentrations are greater than or equal to 5 times the RL. A control limit of 20% for water matrices is applied when the criteria above is true. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of one times the RL is applied for water matrices.

MS/MSD analysis was performed using sample YGWC-52-20201112 in association with SW-846 6020B and 7470A analysis in replacement of laboratory duplicate analysis. The MS/MSD recoveries exhibited acceptable RPDs.

Laboratory duplicate and MS/MSD analysis was not performed using a sample from this SDG in association with SW-846 6010D analysis.

4. Field Duplicate Analysis

Field duplicate analysis is used to assess the overall precision of the field sampling procedures and analytical method. A control limit of 35% for water matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of two times the RL is applied for water matrices.

A field duplicate sample was not collected in association with this SDG.

5. Laboratory Control Sample (LCS) Analysis

The LCS analysis is used to assess the accuracy of the analytical method independent of matrix interferences. The analytes associated with the LCS analysis must exhibit a percent recovery between the control limits of 80% and 120%.

The LCS analysis exhibited recoveries within the control limits.

6. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

DATA VALIDATION CHECKLIST FOR METALS

METALS: SW-846 6010D/6020B/7470A	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
Inductively Coupled Plasma-Atomic Emission Spectrometry (ICP-AES)					
Inductively Coupled Plasma-Mass Spectrometry (ICP-MS)					
Atomic Absorption – Manual Cold Vapor (CV)					
Tier II Validation					
Holding Times		X		X	
Reporting limits (units)		X		X	
Blanks					
A. Method Blanks		X		X	
B. Equipment/Field Blanks	X				X
Laboratory Control Sample (LCS) %R		X		X	
Matrix Spike (MS) %R		X		X	
Matrix Spike Duplicate (MSD) %R		X		X	
MS/MSD Precision (RPD)		X		X	
Field/Lab Duplicate (RPD)	X				X
Reporting Limit Verification		X		X	

Notes:

%R Percent recovery

RPD Relative percent difference

GENERAL CHEMISTRY ANALYSES

1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
Total Dissolved Solids by SM2540C	Water	7 days from collection to analysis	Cool to <6°C
Chloride, Fluoride, and Sulfate by USEPA 300.0	Water	28 days from collection to analysis	Cool to <6°C

All samples were analyzed within the specified holding times.

2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Rinse blanks measure contamination of samples during field operations.

A blank action level (BAL) of five times the concentration of a detected compound in an associated blank is calculated for QA blanks containing concentrations greater than the method detection limit (MDL). The BAL is compared to the associated sample results to determine the appropriate qualification of the sample results, if needed.

Analytes were not detected above the MDL in the associated blanks; therefore, detected sample results were not associated with blank contamination.

3. Matrix Spike/Matrix Spike Duplicate (MS/MSD)/Laboratory Duplicate Analysis

MS/MSD and laboratory duplicate data are used to assess the precision and accuracy of the analytical method.

3.1 MS/MSD Analysis

All analytes must exhibit a percent recovery within the established acceptance limits of 75% to 125%. The MS/MSD recovery control limits do not apply for MS/MSD performed on sample locations where the analyte's concentration detected in the parent sample exceeds the MS/MSD concentration by a factor of four or greater. In instance where this is true, the data will not be qualified even if the percent recovery does not meet the control limits and the laboratory flag will be removed.

MS/MSD analysis was not performed using a sample from this SDG.

3.2 Laboratory Duplicate Analysis

The laboratory duplicate relative percent difference (RPD) criterion is applied when parent and duplicate sample concentrations are greater than or equal to 5 times the RL. A control limit of 20% for water matrices is applied when the criteria above is true. In the instance when the parent and/or duplicate

sample concentrations are less than or equal to 5 times the RL, a control limit of one times the RL is applied for water matrices.

Laboratory duplicate analysis was not performed using a sample from this SDG.

4. Field Duplicate Analysis

Field duplicate analysis is used to assess the overall precision of the field sampling procedures and analytical method. A control limit of 35% for water matrices is applied to the RPD between the parent sample and the field duplicate. In the instance when the parent and/or duplicate sample concentrations are less than or equal to 5 times the RL, a control limit of two times the RL is applied for water matrices.

A field duplicate sample was not collected in association with this SDG.

5. Laboratory Control Sample (LCS) Analysis

The LCS analysis is used to assess the accuracy of the analytical method independent of matrix interferences. The analytes associated with the LCS analysis must exhibit a percent recovery between the control limits of 80% and 120%.

The LCS analysis exhibited recoveries within the control limits.

6. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

DATA VALIDATION CHECKLIST FOR GENERAL CHEMISTRY

General Chemistry: SM2540C, USEPA 300.0	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
Miscellaneous Instrumentation					
Tier II Validation					
Holding times		X		X	
Reporting limits (units)		X		X	
Blanks					
A. Method Blanks		X		X	
B. Equipment blanks	X				X
Laboratory Control Sample (LCS) %R		X		X	
Matrix Spike (MS) %R	X				X
Matrix Spike Duplicate (MSD) %R	X				X
MS/MSD Precision (RPD)	X				X
Field/Lab Duplicate (RPD)	X				X
Dilution Factor		X		X	

Notes:

%R Percent recovery

RPD Relative percent difference

RADIOLOGICAL ANALYSES

1. Holding Times

The specified holding times for the following methods are presented in the following table.

Method	Matrix	Holding Time	Preservation
Radium-226 by SW-846 9315	Water	180 days from collection to analysis	Preserved to a pH of less than 2 s.u.
Radium-228 by SW-846 9320	Water	180 days from collection to analysis	Preserved to a pH of less than 2 s.u.

Note:

s.u. = Standard units

All samples were analyzed within the specified holding times.

2. Blank Contamination

Quality assurance (QA) blanks (i.e., method and field/rinse blanks) are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Field/rinse blanks measure contamination of samples during field operations.

Blank results should be verified to be accurately reported and that tolerance limits (+/- 2 sigma or standard deviation) were not exceeded; and blank results verified to be less than the reporting limit (RL) of 1 pCi/L.

For blanks to be considered not applicable, verify net blank results are less than the associated uncertainty by evaluating the blank results based on the following three criteria. If either of these criteria is true, the blank is considered not suspect of contamination (or non-detect).

1. Is the blank result less than the uncertainty and less than the minimum detectable concentration (MDC)?
2. Does the blank have an uncertainty greater than the result (or indistinguishable from background) or does the blank result fall between its uncertainty and its MDC?

If the blank QC results fall outside the appropriate tolerance limits or if the net blank results are not less than the associated uncertainty, the following equation for normalized absolute difference (NAD) should be used in determining the effect of possible blank contamination on the sample results:

$$Normalized\ \ absolute\ difference_{\ MethodBlank} = \frac{|\ Sample\ -\ Blank\ |}{\sqrt{(U_{Sample}\ )^2 + (U_{Blank}\ )^2}}$$

Where:

U_{Sample} = uncertainty of the sample

U_{Blank} = uncertainty of the blank

Sample = concentration of isotope in sample

Blank = concentration of isotope in blank

Normalized Absolute Difference	Qualification
> 2.58	None
1.96 > x < 2.58	J
x < 1.96	J*

* = Minimally the result should be qualified as estimated, J; however, if other quality indicators are deficient the validator may determine the result should be qualified as rejected, R

Radium-228 and Radium-226 were detected in the method blanks, however, the activities were measured as less than the uncertainty and MDC or between the uncertainty and MDC as described above. Hence, the blank results are considered non-detect and no qualification of the results was required.

3. Matrix Spike (MS)/Laboratory Duplicate Analysis

MS and laboratory duplicate data are used to assess the precision and accuracy of the analytical method.

3.1 MS Analysis

MS samples are not typically analyzed for gamma spectral content due to the inability of the laboratory to homogenize spike material with the sample.

If performed, the spike analysis must exhibit a percent recovery within the control limits of 70% to 130%. The MS recovery control limits do not apply for MS performed on sample locations where the analyte's concentration detected in the parent sample exceeds the MS concentration by a factor of four or greater. In instance where this is true, the data will not be qualified even if the percent recovery does not meet the control limits.

In the event the recovery is outside of this limit, a numerical indicator to make assessments is calculated, with a limit of < +/- 3 sigma for either.

The numerical performance indicator for a matrix spike sample is calculated by:

$$Z_{MS} = \frac{x - x_0 - c}{\sqrt{u^2(x) + u^2(x_0) + u^2(c)}}$$

Where:

x = measured concentration of the spiked sample.

x_0 = measured concentration of the unspiked sample.

c = spike concentration added.

$u^2(x)$, $u^2(x0)$, $u^2(c)$ = the squares of the respective standard uncertainties of these values.

MS performance for all matrices is acceptable when the numerical performance indicator calculation yields a value between +/-3 sigma. Warning limits have been established as +/- 2 sigma.

MS analysis was not performed using a sample from these SDGs.

3.2 Laboratory Duplicate Analysis

Duplicate analyses are indicators of laboratory precision based on each sample matrix. For replicate analysis results to be considered in agreement the duplicate error ratio (DER) must be less than 2.13. In

the event the DER is outside of the limit of 2.13, a numerical indicator to make assessments is calculated, with a limit of +/- 3 sigma or standard deviation.

The numerical performance indicator for laboratory duplicates is calculated by:

$$Z_{Dup} = \frac{x_1 - x_2}{\sqrt{u^2(x_1) + u^2(x_2)}}$$

Where:

x_1, x_2 = two measured activity concentrations.

$u^2(x_1)$, $u^2(x_2)$ = the combined standard uncertainty of each measurement squared.

Duplicate sample performance is acceptable when the numerical performance indicator calculation yields a value between +/- 3 sigma. Warning limits have been established as +/- 2 sigma.

Laboratory duplicate analysis was not performed using a sample from this SDG.

4. Field Duplicate Analysis

Field duplicate analysis is used to assess the overall precision of the field sampling procedures and analytical method. There are no specific review criteria for radiological field replicate analyses comparability. The degree of agreement between these replicates is to be used in conjunction with all of the remaining quality control results as an aid in the decision as to the overall quality of the data. Data are not to be qualified due to field replicates alone. To determine the level of agreement between the replicates, the following guidelines have been established:

For all analyses in soil matrices, data should be considered in agreement if results are within a factor of four of each other. Data between a factor of four and five of each other should be considered as a minor discrepancy and data greater than a factor of five should be considered a major discrepancy.

The field duplicate sample analysis is used to assess the overall precision of the field sampling procedures and analytical method. For results greater than five times the MDC, a control limit of 35 percent for water matrices is applied to the RPD between the parent and field duplicate sample results. If the parent and field duplicate sample results are less than five times the MDC, for water matrices a control limit of two times the MDC is applied to the difference between the results.

A field duplicate sample was not collected in association with this SDG.

5. Tracer or Carrier

Tracers and carriers are used in radiological separation methods to provide evaluation of chemical separation. Chemical yield is evaluated through the recovery of chemical species spiked into samples. Yield is evaluated radiometrically with a tracer and gravimetrically with a carrier. A control limit of 30% to 110% is applied to each sample spiked with either a carrier and/or a tracer.

The tracer and carrier analyses exhibited recoveries within the control limits.

6. Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD) Analysis

The LCS/LCSD analysis is used to assess the precision and accuracy of the analytical method independent of matrix interferences. The analytes associated with the LCS/LCSD analysis must exhibit a

percent recovery between the control limits of 60% to 135%. In the event the recovery is outside of this limit, a numerical indicator to make assessments is calculated, with a limit of +/- 3 sigma.

The numerical performance indicator for a laboratory control sample is calculated

by:

$$Z_{LCS} = \frac{x - c}{\sqrt{u^2(x) + u^2(c)}}$$

Where:

x = Analytical result of the LCS

c = Known concentration of the LCS

$u^2(x)$ = combined standard uncertainty of the result squared.

$u^2(c)$ = combined standard uncertainty of the LCS value squared.

LCS performance is acceptable when the numerical performance indicator calculation yields a value between +/- 3 sigma. Warning limits have been established as +/- 2 sigma.

The LCS/LCSD analysis exhibited recoveries within the control limits.

7. Isotope Identification

For sample results to be considered “non-detect”, evaluate data based on the following two criteria. If either one of these criteria is true, the sample result is considered “non-detect”.

1. Sample result is less than the uncertainty and less than the MDC/MDA; or
2. Sample has an uncertainty greater than the result (or indistinguishable from background) or result falls between its uncertainty and its MDC/MDA.

Based on the above criteria sample results should be considered non-detect as follows:

- YGWC-52-20201112 –Radium-228 and total Radium
- YGWC-46A-20201112 – Radium-226, Radium-228, and total Radium

8. System Performance and Overall Assessment

Overall system performance was acceptable. Other than for those deviations specifically mentioned in this review, the overall data quality is within the guidelines specified in the method.

DATA VALIDATION CHECKLIST FOR RADIOLOGICALS

RADIOLOGICALS: SW-846 9315/9320	Reported		Performance Acceptable		Not Required
	No	Yes	No	Yes	
Gas-Flow Proportional System					
Tier II Validation					
Holding Times		X		X	
Activity, +/- uncertainty, MDC/MDA		X		X	
Blanks					
A. Method Blanks		X		X	
B. Equipment/Field Blanks	X				X
Carrier (Surrogate) %R		X		X	
Tracer (Surrogate) %R	X				X
Laboratory Control Sample (LCS)		X		X	
Laboratory Control Sample Duplicate (LCSD)		X		X	
LCS/LCSD Precision (RPD)		X		X	
Matrix Spike (MS) %R	X				X
Matrix Spike Duplicate (MSD) %R	X				X
MS/MSD Precision (RPD)	X				X
Field/Lab Duplicate (RPD)	X				X

Notes:

%R Percent recovery

RPD Relative percent difference

VALIDATION PERFORMED BY: Jennifer Singer

SIGNATURE: 

DATE: January 15, 2021

PEER REVIEW: Dennis Capria

DATE: January 15, 2021

CHAIN OF CUSTODY / DATA QUALIFIER SUMMARY TABLE

Pace Analytical
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page : 1 Of 1

Section A
Required Client Information:
Company: Arcadis (GA Power)
Address: 2839 Paces Ferry Rd SE
Suite 900, Atlanta, GA 30339
Email:
Phone: Fax:
Requested Due Date:

Section B
Required Project Information:
Report To: Jake Swanson
Copy To:
Purchase Order #:
Project Name: Yates App III & IV
Project #:

Section C
Invoice Information:
Attention:
Company Name:
Address:
Pace Quote:
Pace Project Manager: kevin.herring@pacelabs.com
Pace Profile #: 10840

Regulatory Agency:
State / Location: GA

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample IDs must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Y/N	Analyses Test: App III & IV Metals	TDS	Cl, F, SO4	RAD 9315/9320	Residual Chlorine (Y/N)	
1	YGWC-52-20201112	WT		11/12/20	1140				5	1		1							X	X	X	X		9250843
2	YGWC-46A-20201112	WT		11/12/20	1005				5	1		1							X	X	X	X		
3																									
4																									
5																									
6																									
7																									
8																									
9																									
10																									
11																									
12																									

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
	Jake Swanson	11/12/20	1700	Chris Hunt	11/12/20	1700	4.5	Y	N	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Jake Swanson

SIGNATURE of SAMPLER: [signature]

DATE Signed: 11/12/20

SDG	Sample ID	Method	Analyte	Result	Units	Validation Qualifier	Reason for Validation Qualifier
92505843	No qualifiers assigned						
92505844	No qualifiers assigned						

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

November 24, 2020

Ms. Lauren Petty
Southern Co. Services
42 Inverness Center Parkway
Birmingham, AL 35242

RE: Project: YATES APP III & IV
Pace Project No.: 92505843

Dear Ms. Petty:

Enclosed are the analytical results for sample(s) received by the laboratory on November 12, 2020. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Asheville
- Pace Analytical Services - Peachtree Corners, GA

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

Sincerely,

Kevin Herring
kevin.herring@pacelabs.com
1(704)875-9092
HORIZON Database Administrator

Enclosures

cc: Joju Abraham, Georgia Power-CCR
Geoffrey Gay, ARCADIS - Atlanta
Kristen Jurinko
Kelley Sharpe, ARCADIS - Atlanta
Alex Simpson, Arcadis
Samantha Thomas
Maribel Vital

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Peachtree Corners, GA 30092
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CERTIFICATIONS

Project: YATES APP III & IV
Pace Project No.: 92505843

Pace Analytical Services Asheville
2225 Riverside Drive, Asheville, NC 28804
Florida/NELAP Certification #: E87648
North Carolina Drinking Water Certification #: 37712
North Carolina Wastewater Certification #: 40
South Carolina Certification #: 99030001
Virginia/VELAP Certification #: 460222

Pace Analytical Services Peachtree Corners
110 Technology Pkwy, Peachtree Corners, GA 30092
Florida DOH Certification #: E87315
Georgia DW Inorganics Certification #: 812
Georgia DW Microbiology Certification #: 812
North Carolina Certification #: 381
South Carolina Certification #: 98011001
Virginia Certification #: 460204

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SAMPLE SUMMARY

Project: YATES APP III & IV
Pace Project No.: 92505843

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92505843001	**YGWC-52-20201112**	Water	11/12/20 11:40	11/12/20 17:00
92505843002	**YGWC-46A-20201112**	Water	11/12/20 10:05	11/12/20 17:00

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SAMPLE ANALYTE COUNT

Project: YATES APP III & IV
Pace Project No.: 92505843

Lab ID	Sample ID	Method	Analysts	Analytes Reported
92505843001	**YGWC-52-20201112**	EPA 6010D	KH	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2450C-2011	AW1	1
		EPA 300.0 Rev 2.1 1993	CDC	3
92505843002	**YGWC-46A-20201112**	EPA 6010D	KH	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2450C-2011	AW1	1
		EPA 300.0 Rev 2.1 1993	CDC	3

PASI-A = Pace Analytical Services - Asheville
PASI-GA = Pace Analytical Services - Peachtree Corners, GA

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SUMMARY OF DETECTION

Project: YATES APP III & IV
Pace Project No.: 92505843

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92505843001	**YGWC-52-20201112**					
EPA 6010D	Calcium	53.6	mg/L	1.0	11/19/20 02:28	
EPA 6020B	Barium	0.019	mg/L	0.010	11/20/20 18:26	
EPA 6020B	Boron	0.012J	mg/L	0.10	11/20/20 18:26	
EPA 6020B	Cobalt	0.0015J	mg/L	0.0050	11/20/20 18:26	
EPA 6020B	Lead	0.000064J	mg/L	0.0050	11/20/20 18:26	
EPA 6020B	Lithium	0.0044J	mg/L	0.030	11/20/20 18:26	
SM 2450C-2011	Total Dissolved Solids	317	mg/L	10.0	11/17/20 16:04	
EPA 300.0 Rev 2.1 1993	Chloride	3.8	mg/L	1.0	11/18/20 04:19	
EPA 300.0 Rev 2.1 1993	Sulfate	147	mg/L	3.0	11/18/20 07:09	
92505843002	**YGWC-46A-20201112**					
EPA 6010D	Calcium	110	mg/L	1.0	11/19/20 02:33	
EPA 6020B	Arsenic	0.0014J	mg/L	0.0050	11/20/20 18:49	
EPA 6020B	Barium	0.042	mg/L	0.010	11/20/20 18:49	
EPA 6020B	Boron	1.8	mg/L	0.10	11/20/20 18:49	
EPA 6020B	Cobalt	0.0010J	mg/L	0.0050	11/20/20 18:49	
EPA 6020B	Lead	0.000044J	mg/L	0.0050	11/20/20 18:49	
EPA 6020B	Lithium	0.014J	mg/L	0.030	11/20/20 18:49	
EPA 6020B	Molybdenum	0.0019J	mg/L	0.010	11/20/20 18:49	
SM 2450C-2011	Total Dissolved Solids	760	mg/L	20.0	11/17/20 16:04	
EPA 300.0 Rev 2.1 1993	Chloride	26.7	mg/L	1.0	11/18/20 04:33	
EPA 300.0 Rev 2.1 1993	Fluoride	0.084J	mg/L	0.10	11/18/20 04:33	
EPA 300.0 Rev 2.1 1993	Sulfate	385	mg/L	9.0	11/18/20 07:22	

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ANALYTICAL RESULTS

Project: YATES APP III & IV
Pace Project No.: 92505843

Sample: YGWC-52-20201112 **Lab ID: 92505843001** Collected: 11/12/20 11:40 Received: 11/12/20 17:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**53.6**	mg/L	1.0	0.070	1	11/18/20 15:19	11/19/20 02:28	7440-70-2	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00028	1	11/19/20 08:40	11/20/20 18:26	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	11/19/20 08:40	11/20/20 18:26	7440-38-2	
Barium	**0.019**	mg/L	0.010	0.00071	1	11/19/20 08:40	11/20/20 18:26	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000046	1	11/19/20 08:40	11/20/20 18:26	7440-41-7	
Boron	**0.012J**	mg/L	0.10	0.0052	1	11/19/20 08:40	11/20/20 18:26	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00012	1	11/19/20 08:40	11/20/20 18:26	7440-43-9	
Chromium	ND	mg/L	0.010	0.00055	1	11/19/20 08:40	11/20/20 18:26	7440-47-3	
Cobalt	**0.0015J**	mg/L	0.0050	0.00038	1	11/19/20 08:40	11/20/20 18:26	7440-48-4	
Lead	**0.000064J**	mg/L	0.0050	0.000036	1	11/19/20 08:40	11/20/20 18:26	7439-92-1	
Lithium	**0.0044J**	mg/L	0.030	0.00081	1	11/19/20 08:40	11/20/20 18:26	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	11/19/20 08:40	11/20/20 18:26	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	11/19/20 08:40	11/20/20 18:26	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	11/19/20 08:40	11/20/20 18:26	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00050	0.000078	1	11/23/20 08:20	11/23/20 13:26	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**317**	mg/L	10.0	10.0	1		11/17/20 16:04		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**3.8**	mg/L	1.0	0.60	1		11/18/20 04:19	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		11/18/20 04:19	16984-48-8	
Sulfate	**147**	mg/L	3.0	1.5	3		11/18/20 07:09	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: YATES APP III & IV
Pace Project No.: 92505843

Sample: YGWC-46A-20201112 **Lab ID: 92505843002** Collected: 11/12/20 10:05 Received: 11/12/20 17:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010D ATL ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	**110**	mg/L	1.0	0.070	1	11/18/20 15:19	11/19/20 02:33	7440-70-2	
6020 MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00028	1	11/19/20 08:40	11/20/20 18:49	7440-36-0	
Arsenic	**0.0014J**	mg/L	0.0050	0.00078	1	11/19/20 08:40	11/20/20 18:49	7440-38-2	
Barium	**0.042**	mg/L	0.010	0.00071	1	11/19/20 08:40	11/20/20 18:49	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000046	1	11/19/20 08:40	11/20/20 18:49	7440-41-7	
Boron	**1.8**	mg/L	0.10	0.0052	1	11/19/20 08:40	11/20/20 18:49	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00012	1	11/19/20 08:40	11/20/20 18:49	7440-43-9	
Chromium	ND	mg/L	0.010	0.00055	1	11/19/20 08:40	11/20/20 18:49	7440-47-3	
Cobalt	**0.0010J**	mg/L	0.0050	0.00038	1	11/19/20 08:40	11/20/20 18:49	7440-48-4	
Lead	**0.000044J**	mg/L	0.0050	0.000036	1	11/19/20 08:40	11/20/20 18:49	7439-92-1	
Lithium	**0.014J**	mg/L	0.030	0.00081	1	11/19/20 08:40	11/20/20 18:49	7439-93-2	
Molybdenum	**0.0019J**	mg/L	0.010	0.00069	1	11/19/20 08:40	11/20/20 18:49	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	11/19/20 08:40	11/20/20 18:49	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	11/19/20 08:40	11/20/20 18:49	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00050	0.000078	1	11/23/20 08:20	11/23/20 13:40	7439-97-6	
2540C Total Dissolved Solids	Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	**760**	mg/L	20.0	20.0	1		11/17/20 16:04		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	**26.7**	mg/L	1.0	0.60	1		11/18/20 04:33	16887-00-6	
Fluoride	**0.084J**	mg/L	0.10	0.050	1		11/18/20 04:33	16984-48-8	
Sulfate	**385**	mg/L	9.0	4.5	9		11/18/20 07:22	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: YATES APP III & IV
Pace Project No.: 92505843

QC Batch: 581313
QC Batch Method: EPA 3010A
Analysis Method: EPA 6010D
Analysis Description: 6010D ATL
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92505843001, 92505843002

METHOD BLANK: 3074651 Matrix: Water
Associated Lab Samples: 92505843001, 92505843002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.070	11/19/20 02:12	

LABORATORY CONTROL SAMPLE: 3074652

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	1.0	103	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3074653 3074654

Parameter	Units	92505496006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Calcium	mg/L	133	1	1	130	129	-299	-430	75-125	1	20	M1

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(770)734-4200

QUALITY CONTROL DATA

Project: YATES APP III & IV
Pace Project No.: 92505843

QC Batch: 581476
QC Batch Method: EPA 3005A
Analysis Method: EPA 6020B
Analysis Description: 6020 MET
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92505843001, 92505843002

METHOD BLANK: 3075465 Matrix: Water
Associated Lab Samples: 92505843001, 92505843002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00028	11/20/20 18:15	
Arsenic	mg/L	ND	0.0050	0.00078	11/20/20 18:15	
Barium	mg/L	ND	0.010	0.00071	11/20/20 18:15	
Beryllium	mg/L	ND	0.0030	0.000046	11/20/20 18:15	
Boron	mg/L	ND	0.10	0.0052	11/20/20 18:15	
Cadmium	mg/L	ND	0.0025	0.00012	11/20/20 18:15	
Chromium	mg/L	ND	0.010	0.00055	11/20/20 18:15	
Cobalt	mg/L	ND	0.0050	0.00038	11/20/20 18:15	
Lead	mg/L	ND	0.0050	0.000036	11/20/20 18:15	
Lithium	mg/L	ND	0.030	0.00081	11/20/20 18:15	
Molybdenum	mg/L	ND	0.010	0.00069	11/20/20 18:15	
Selenium	mg/L	ND	0.010	0.0016	11/20/20 18:15	
Thallium	mg/L	ND	0.0010	0.00014	11/20/20 18:15	

LABORATORY CONTROL SAMPLE: 3075466

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.10	100	80-120	
Arsenic	mg/L	0.1	0.097	97	80-120	
Barium	mg/L	0.1	0.097	97	80-120	
Beryllium	mg/L	0.1	0.10	103	80-120	
Boron	mg/L	1	1.1	106	80-120	
Cadmium	mg/L	0.1	0.098	98	80-120	
Chromium	mg/L	0.1	0.10	101	80-120	
Cobalt	mg/L	0.1	0.098	98	80-120	
Lead	mg/L	0.1	0.099	99	80-120	
Lithium	mg/L	0.1	0.11	105	80-120	
Molybdenum	mg/L	0.1	0.099	99	80-120	
Selenium	mg/L	0.1	0.097	97	80-120	
Thallium	mg/L	0.1	0.097	97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3075467 3075468

Parameter	Units	92505843001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	mg/L	ND	0.1	0.1	0.10	0.10	101	102	75-125	2	20	
Arsenic	mg/L	ND	0.1	0.1	0.10	0.10	99	101	75-125	2	20	

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QUALITY CONTROL DATA

Project: YATES APP III & IV
Pace Project No.: 92505843

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3075467 3075468

Parameter	Units	92505843001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Barium	mg/L	0.019	0.1	0.1	0.12	0.12	97	98	75-125	1	20	
Beryllium	mg/L	ND	0.1	0.1	0.093	0.098	93	98	75-125	5	20	
Boron	mg/L	0.012J	1	1	0.97	0.99	96	98	75-125	2	20	
Cadmium	mg/L	ND	0.1	0.1	0.098	0.10	98	100	75-125	2	20	
Chromium	mg/L	ND	0.1	0.1	0.10	0.10	100	101	75-125	1	20	
Cobalt	mg/L	0.0015J	0.1	0.1	0.099	0.10	98	101	75-125	4	20	
Lead	mg/L	0.000064J	0.1	0.1	0.096	0.099	96	99	75-125	3	20	
Lithium	mg/L	0.0044J	0.1	0.1	0.10	0.11	96	102	75-125	6	20	
Molybdenum	mg/L	ND	0.1	0.1	0.10	0.10	100	102	75-125	2	20	
Selenium	mg/L	ND	0.1	0.1	0.097	0.10	96	100	75-125	4	20	
Thallium	mg/L	ND	0.1	0.1	0.095	0.099	95	99	75-125	4	20	

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QUALITY CONTROL DATA

Project: YATES APP III & IV
Pace Project No.: 92505843

QC Batch: 580803
QC Batch Method: EPA 7470A
Analysis Method: EPA 7470A
Analysis Description: 7470 Mercury
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92505843001, 92505843002

METHOD BLANK: 3072015 Matrix: Water
Associated Lab Samples: 92505843001, 92505843002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00050	0.000078	11/23/20 13:21	

LABORATORY CONTROL SAMPLE: 3072016

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.0025	0.0025	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3072017 3072018

Parameter	Units	92505843001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	mg/L	ND	0.0025	0.0025	0.0025	0.0025	98	99	75-125	1	20	

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QUALITY CONTROL DATA

Project: YATES APP III & IV
Pace Project No.: 92505843

QC Batch: 580910
QC Batch Method: SM 2450C-2011
Analysis Method: SM 2450C-2011
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Peachtree Corners, GA
Associated Lab Samples: 92505843001, 92505843002

METHOD BLANK: 3072613 Matrix: Water
Associated Lab Samples: 92505843001, 92505843002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	11/17/20 16:03	

LABORATORY CONTROL SAMPLE: 3072614

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

SAMPLE DUPLICATE: 3072616

Parameter	Units	92506106002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	62.0	64.0	3	10	

SAMPLE DUPLICATE: 3072820

Parameter	Units	92506187002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	196	209	6	10	

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QUALITY CONTROL DATA

Project: YATES APP III & IV
Pace Project No.: 92505843

QC Batch: 580771
QC Batch Method: EPA 300.0 Rev 2.1 1993
Analysis Method: EPA 300.0 Rev 2.1 1993
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 92505843001, 92505843002

METHOD BLANK: 3071887 Matrix: Water
Associated Lab Samples: 92505843001, 92505843002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	11/17/20 22:58	
Fluoride	mg/L	ND	0.10	0.050	11/17/20 22:58	
Sulfate	mg/L	ND	1.0	0.50	11/17/20 22:58	

LABORATORY CONTROL SAMPLE: 3071888

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	50.8	102	90-110	
Fluoride	mg/L	2.5	2.6	105	90-110	
Sulfate	mg/L	50	50.5	101	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3071889 3071890

Parameter	Units	92506020008 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	ND	50	50	52.0	52.2	104	104	90-110	0	10	
Fluoride	mg/L	ND	2.5	2.5	2.4	2.6	97	103	90-110	7	10	
Sulfate	mg/L	ND	50	50	51.4	51.5	103	103	90-110	0	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3071891 3071892

Parameter	Units	92506244005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	2.2	50	50	54.1	54.4	104	104	90-110	0	10	
Fluoride	mg/L	ND	2.5	2.5	2.3	2.5	92	99	90-110	7	10	
Sulfate	mg/L	ND	50	50	51.3	51.5	102	102	90-110	0	10	

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REPORT OF LABORATORY ANALYSIS

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(770)734-4200

QUALIFIERS

Project: YATES APP III & IV
Pace Project No.: 92505843

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - 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.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

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

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

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Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: YATES APP III & IV
Pace Project No.: 92505843

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92505843001	**YGWC-52-20201112**	EPA 3010A	581313	EPA 6010D	581362
92505843002	**YGWC-46A-20201112**	EPA 3010A	581313	EPA 6010D	581362
92505843001	**YGWC-52-20201112**	EPA 3005A	581476	EPA 6020B	581564
92505843002	**YGWC-46A-20201112**	EPA 3005A	581476	EPA 6020B	581564
92505843001	**YGWC-52-20201112**	EPA 7470A	580803	EPA 7470A	582285
92505843002	**YGWC-46A-20201112**	EPA 7470A	580803	EPA 7470A	582285
92505843001	**YGWC-52-20201112**	SM 2450C-2011	580910		
92505843002	**YGWC-46A-20201112**	SM 2450C-2011	580910		
92505843001	**YGWC-52-20201112**	EPA 300.0 Rev 2.1 1993	580771		
92505843002	**YGWC-46A-20201112**	EPA 300.0 Rev 2.1 1993	580771		

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Pace Analytical	Document Name: Sample Condition Upon Receipt(SCUR)	Document Revised: October 28, 2020 Page 1 of 2
	Document No.: F-CAR-CS-033-Rev.07	Issuing Authority: Pace Carolinas Quality Office

Laboratory receiving samples:
Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☐ Raleigh ☐ Mechanicsville ☐ Atlanta ☑ Kernersville ☐

Sample Condition Upon Receipt

Client Name: GA Power

Project #: WO# : 92505843

92505843

Courier: ☐ Commercial ☐ Fed Ex ☐ Pace ☐ UPS ☐ USPS ☐ Other:____ ☑ Client

Custody Seal Present? ☐ Yes ☑ No Seals Intact? ☐ Yes ☐ No

Date/Initials Person Examining Contents: CO 11/12/20

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☐ None ☑ Other

Biological Tissue Frozen? ☐ Yes ☑ No ☐ N/A

Thermometer: ☐ IR Gun ID: 230 Type of Ice: ☑ Wet ☐ Blue ☐ None

Cooler Temp: 4.5 Correction Factor: Add/Subtract (°C) +0

Cooler Temp Corrected (°C): 4.5

Temp should be above freezing to 6°C
☐ Samples out of temp criteria. Samples on ice, cooling process has begun

USDA Regulated Soil (☐ N/A, water sample)
Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? ☐ Yes ☑ No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? ☐ Yes ☑ No

				Comments/Discrepancy:
Chain of Custody Present?	☑ Yes	☐ No	☐ N/A	1.
Samples Arrived within Hold Time?	☑ Yes	☐ No	☐ N/A	2.
Short Hold Time Analysis (<72 hr.)?	☐ Yes	☑ No	☐ N/A	3.
Rush Turn Around Time Requested?	☐ Yes	☑ No	☐ N/A	4.
Sufficient Volume?	☑ Yes	☐ No	☐ N/A	5.
Correct Containers Used?	☑ Yes	☐ No	☐ N/A	6.
-Pace Containers Used?	☑ Yes	☐ No	☐ N/A	
Containers Intact?	☑ Yes	☐ No	☐ N/A	7.
Dissolved analysis: Samples Field Filtered?	☐ Yes	☐ No	☑ N/A	8.
Sample Labels Match COC?	☑ Yes	☐ No	☐ N/A	9.
-Includes Date/Time/ID/Analysis Matrix: WT				
Headspace in VOA Vials (>5-6mm)?	☐ Yes	☐ No	☑ N/A	10.
Trip Blank Present?	☐ Yes	☐ No	☐ N/A	11.
Trip Blank Custody Seals Present?	☐ Yes	☐ No	☐ N/A	

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? ☐ Yes ☐ No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: _____ Date/Time: _____

Project Manager SCURF Review: _____ Date: _____

Project Manager SRF Review: _____ Date: _____

*Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.

Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC, LLHg

**Bottom half of box is to list number of bottles

Project # **WO#: 92505843**

PM: KLH1 Due Date: 11/30/20

CLIENT: GA-GA Power

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4C-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	AG3A(DG3A)-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unp (N/A)	DG9P-40 mL VOA H3PO4 (N/A)	VOAK (6 vials per kit)-5035 kit (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SPST-125 mL Sterile Plastic (N/A – lab)	SP2T-250 mL Sterile Plastic (N/A – lab)	RADs BPIN	BP3A-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved vials (N/A)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)
1		1	1			1																			2				
2		1	1			1																			2				
3																													
4																													
5																													
6																													
7																													
8																													
9																													
10																													
11																													
12																													

pH Adjustment Log for Preserved Samples

Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	Lot #

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.

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page : 1 Of 1

Section A
Required Client Information:
Company: Arcadis (GA Power)
Address: 2839 Paces Ferry Rd SE
Suite 900, Atlanta, GA 30339
Email:
Phone: Fax:
Requested Due Date:

Section B
Required Project Information:
Report To: Jake Swanson
Copy To:
Purchase Order #:
Project Name: Yates App III & IV
Project #:

Section C
Invoice Information:
Attention:
Company Name:
Address:
Pace Quote:
Pace Project Manager: kevin.herring@pacelabs.com
Pace Profile #: 10840

Regulatory Agency:
State / Location: GA

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample IDs must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	App III & IV Metals	TDS	Cl, F, SO4	RAD 9315/9320	Residual Chlorine (Y/N)	92505843
1	YGWC-52 - 20201112	WT		11/2/20	1140				5	✓		✓							X	X	X	X		
2	YGWC-46A - 20201112	WT		11/2/20	1005				5	✓		✓							X	X	X	X		
3																								
4																								
5																								
6																								
7																								
8																								
9																								
10																								
11																								
12																								

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	Jake Swanson	11/2/20	1700	Charlotte Hunt	11/4/20	1700	4.5	Y	N	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Jake Swanson

SIGNATURE of SAMPLER: [signature] DATE Signed: 11/2/20

TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

December 09, 2020

Ms. Lauren Petty
Southern Co. Services
42 Inverness Center Parkway
Birmingham, AL 35242

RE: Project: YATES APP III & IV RADS
Pace Project No.: 92505844

Dear Ms. Petty:

Enclosed are the analytical results for sample(s) received by the laboratory on November 12, 2020. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Greensburg

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

Sincerely,

Kevin Herring
kevin.herring@pacelabs.com
1(704)875-9092
HORIZON Database Administrator

Enclosures

cc: Joju Abraham, Georgia Power-CCR
Geoffrey Gay, ARCADIS - Atlanta
Kristen Jurinko
Kelley Sharpe, ARCADIS - Atlanta
Alex Simpson, Arcadis
Samantha Thomas
Maribel Vital

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CERTIFICATIONS

Project: YATES APP III & IV RADS
Pace Project No.: 92505844

Pace Analytical Services Pennsylvania
1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
Delaware Certification
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Florida: Cert E871149 SEKS WET
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA180012
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: 2017020
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572018-1
New Hampshire/TNI Certification #: 297617
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-010
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: 02867
Texas/TNI Certification #: T104704188-17-3
Utah/TNI Certification #: PA014572017-9
USDA Soil Permit #: P330-17-00091
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 9526
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad
Wyoming Certification #: 8TMS-L

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SAMPLE SUMMARY

Project: YATES APP III & IV RADS
Pace Project No.: 92505844

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92505844001	**YGWC-52-20201112**	Water	11/12/20 11:40	11/12/20 17:00
92505844002	**YGWC-46A-20201112**	Water	11/12/20 10:05	11/12/20 17:00

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SAMPLE ANALYTE COUNT

Project: YATES APP III & IV RADS
Pace Project No.: 92505844

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92505844001	**YGWC-52-20201112**	EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
92505844002	**YGWC-46A-20201112**	EPA 9315	JJY	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA

PASI-PA = Pace Analytical Services - Greensburg

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SUMMARY OF DETECTION

Project: YATES APP III & IV RADS
Pace Project No.: 92505844

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
92505844001	**YGWC-52-20201112**					
EPA 9315	Radium-226	0.863 ± 0.474 (0.811) C:94% T:NA	pCi/L		12/04/20 05:52	
EPA 9320	Radium-228	0.542 ± 0.549 (1.15) C:74% T:78%	pCi/L		12/03/20 14:18	
Total Radium Calculation	Total Radium	1.41 ± 1.02 (1.96)	pCi/L		12/09/20 12:46	
92505844002	**YGWC-46A-20201112**					
EPA 9315	Radium-226	0.106 ± 0.222 (0.518) C:92% T:NA	pCi/L		12/04/20 05:52	
EPA 9320	Radium-228	-0.260 ± 0.512 (1.25) C:77% T:58%	pCi/L		12/03/20 14:18	
Total Radium Calculation	Total Radium	0.106 ± 0.734 (1.77)	pCi/L		12/09/20 12:46	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: YATES APP III & IV RADS
Pace Project No.: 92505844

Sample: YGWC-52-20201112 **Lab ID: 92505844001** Collected: 11/12/20 11:40 Received: 11/12/20 17:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	**0.863 ± 0.474 (0.811) C:94% T:NA**	pCi/L	12/04/20 05:52	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**0.542 ± 0.549 (1.15) C:74% T:78%**	pCi/L	12/03/20 14:18	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**1.41 ± 1.02 (1.96)**	pCi/L	12/09/20 12:46	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: YATES APP III & IV RADS
Pace Project No.: 92505844

Sample: YGWC-46A-20201112 **Lab ID: 92505844002** Collected: 11/12/20 10:05 Received: 11/12/20 17:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	**0.106 ± 0.222 (0.518) C:92% T:NA**	pCi/L	12/04/20 05:52	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	**-0.260 ± 0.512 (1.25) C:77% T:58%**	pCi/L	12/03/20 14:18	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	**0.106 ± 0.734 (1.77)**	pCi/L	12/09/20 12:46	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: YATES APP III & IV RADS
Pace Project No.: 92505844

QC Batch: 425257
QC Batch Method: EPA 9315
Analysis Method: EPA 9315
Analysis Description: 9315 Total Radium
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 92505844001, 92505844002

METHOD BLANK: 2055115 Matrix: Water
Associated Lab Samples: 92505844001, 92505844002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	-0.0581 ± 0.154 (0.491) C:97% T:NA	pCi/L	12/04/20 05:52	

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

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: YATES APP III & IV RADS
Pace Project No.: 92505844

QC Batch: 423745
QC Batch Method: EPA 9320
Analysis Method: EPA 9320
Analysis Description: 9320 Radium 228
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 92505844001, 92505844002

METHOD BLANK: 2048526
Matrix: Water
Associated Lab Samples: 92505844001, 92505844002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.623 ± 0.506 (1.00) C:63% T:69%	pCi/L	12/03/20 11:13	

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

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: YATES APP III & IV RADS
Pace Project No.: 92505844

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - 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.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

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.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: YATES APP III & IV RADS
Pace Project No.: 92505844

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92505844001	**YGWC-52-20201112**	EPA 9315	425257		
92505844002	**YGWC-46A-20201112**	EPA 9315	425257		
92505844001	**YGWC-52-20201112**	EPA 9320	423745		
92505844002	**YGWC-46A-20201112**	EPA 9320	423745		
92505844001	**YGWC-52-20201112**	Total Radium Calculation	426396		
92505844002	**YGWC-46A-20201112**	Total Radium Calculation	426396		

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Pace Analytical	Document Name: Sample Condition Upon Receipt(SCUR)	Document Revised: October 28, 2020 Page 1 of 2
	Document No.: F-CAR-CS-033-Rev.07	Issuing Authority: Pace Carolinas Quality Office

Laboratory receiving samples:
Asheville ☐ Eden ☐ Greenwood ☐ Huntersville ☐ Raleigh ☐ Mechanicsville ☐ Atlanta ☑ Kernersville ☐

Sample Condition Upon Receipt

Client Name: GA Power

Project #: WO# : 92505844

92505844

Courier: ☐ Commercial ☐ Fed Ex ☐ Pace ☐ UPS ☐ USPS ☐ Other: ☑ Client

Custody Seal Present? ☐ Yes ☑ No Seals Intact? ☐ Yes ☐ No

Date/Initials Person Examining Contents: CO 11/12/20

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☐ None ☑ Other

Biological Tissue Frozen? ☐ Yes ☑ No ☐ N/A

Thermometer: ☐ IR Gun ID: 230

Type of Ice: ☑ Wet ☐ Blue ☐ None

Cooler Temp: 4.5 Correction Factor: Add/Subtract (°C) ± 0

Temp should be above freezing to 6°C
☐ Samples out of temp criteria. Samples on ice, cooling process has begun

Cooler Temp Corrected (°C): 4.5

USDA Regulated Soil (☐ N/A, water sample)

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)? ☐ Yes ☑ No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? ☐ Yes ☑ No

				Comments/Discrepancy:
Chain of Custody Present?	☑ Yes	☐ No	☐ N/A	1.
Samples Arrived within Hold Time?	☑ Yes	☐ No	☐ N/A	2.
Short Hold Time Analysis (<72 hr.)?	☐ Yes	☑ No	☐ N/A	3.
Rush Turn Around Time Requested?	☐ Yes	☑ No	☐ N/A	4.
Sufficient Volume?	☑ Yes	☐ No	☐ N/A	5.
Correct Containers Used?	☑ Yes	☐ No	☐ N/A	6.
-Pace Containers Used?	☑ Yes	☐ No	☐ N/A	
Containers Intact?	☑ Yes	☐ No	☐ N/A	7.
Dissolved analysis: Samples Field Filtered?	☐ Yes	☐ No	☑ N/A	8.
Sample Labels Match COC?	☑ Yes	☐ No	☐ N/A	9.
-Includes Date/Time/ID/Analysis Matrix: WT				
Headspace in VOA Vials (>5-6mm)?	☐ Yes	☐ No	☑ N/A	10.
Trip Blank Present?	☐ Yes	☑ No	☐ N/A	11.
Trip Blank Custody Seals Present?	☐ Yes	☐ No	☐ N/A	

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? ☐ Yes ☐ No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: Date/Time:

Project Manager SCURF Review: Date:

Project Manager SRF Review: Date:

*Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.

Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC, LLHg

**Bottom half of box is to list number of bottles

Project # **WO#: 92505844**

PM: KLH1 Due Date: 12/07/20

CLIENT: GA-GA Power

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP3U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4C-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	AG3A(DG3A)-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Unp (N/A)	DG9P-40 mL VOA H3PO4 (N/A)	VOAK (6 vials per kit)-5035 kit (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A – lab)	SP2T-250 mL Sterile Plastic (N/A – lab)	RADs BP1N	BP3A-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved vials (N/A)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)
1		1	1			1																			2				
2		1	1			1																			2				
3																													
4																													
5																													
6																													
7																													
8																													
9																													
10																													
11																													
12																													

pH Adjustment Log for Preserved Samples

Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	Lot #

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

Pace Analytical
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page : 1 Of 1

Section A
Required Client Information:
Company: Arcadis (GA Power)
Address: 2839 Paces Ferry Rd SE
Suite 900, Atlanta, GA 30339
Email:
Phone: Fax:
Requested Due Date:

Section B
Required Project Information:
Report To: Jake Swanson
Copy To:
Purchase Order #:
Project Name: Yates App III & IV
Project #:

Section C
Invoice Information:
Attention:
Company Name:
Address:
Pace Quote:
Pace Project Manager: kevin.herring@pacelabs.com,
Pace Profile #: 10840

Regulatory Agency:
State / Location: GA

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analysis Test Y/N	App III & IV Metals	TDS	Cl, F, SO4	RAD 9315/9320	Residual Chlorine (Y/N)	92505844
1	YGWC-52-20201112	WT		11/12/20	1140				5	✓		✓							X	X	X	X		
2	YGWC-46A-20201112	WT		11/12/20	1005				5	✓		✓							X	X	X	X		
3																								
4																								
5																								
6																								
7																								
8																								
9																								
10																								
11																								
12																								

MATRIX CODE: Drinking Water (DW), Water (WT), Waste Water (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Other (OT), Tissue (TS)

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	Jake Swanson	11/12/20	1700	[signature]	11/12/20	1700	4.5	Y	N	Y

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: Jake Swanson
SIGNATURE of SAMPLER: [signature] DATE Signed: 11/12/20

TEMP in C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

Quality Control Sample Performance Assessment

Pace Analytical
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Test: Ra-226
Analyst: JJY
Date: 12/3/2020
Worklist: 57639
Matrix: DW

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	2055115
MB concentration:	-0.058
M/B Counting Uncertainty:	0.154
MB MDC:	0.491
MB Numerical Performance Indicator:	-0.74
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	Y
	LCS57639	LCSD57639
Count Date:	12/4/2020	12/4/2020
Spike I.D.:	19-033	19-033
Decay Corrected Spike Concentration (pCi/mL):	24.042	24.042
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.506	0.507
Target Conc. (pCi/L, g, F):	4.751	4.743
Uncertainty (Calculated):	0.057	0.057
Result (pCi/L, g, F):	5.488	4.865
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.884	0.813
Numerical Performance Indicator:	1.53	0.29
Percent Recovery:	115.51%	102.56%
Status vs Numerical Indicator:	N/A	N/A
Status vs Recovery:	Pass	Pass
Upper % Recovery Limits:	125%	125%
Lower % Recovery Limits:	75%	75%

Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
Sample Collection Date:		
Sample I.D.		
Sample MS I.D.		
Sample MSD I.D.		
Spike I.D.:		
MS/MSD Decay Corrected Spike Concentration (pCi/mL):		
Spike Volume Used in MS (mL):		
Spike Volume Used in MSD (mL):		
MS Aliquot (L, g, F):		
MS Target Conc.(pCi/L, g, F):		
MSD Aliquot (L, g, F):		
MSD Target Conc. (pCi/L, g, F):		
MS Spike Uncertainty (calculated):		
MSD Spike Uncertainty (calculated):		
Sample Result:		
Sample Result Counting Uncertainty (pCi/L, g, F):		
Sample Matrix Spike Result:		
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):		
Sample Matrix Spike Duplicate Result:		
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):		
MS Numerical Performance Indicator:		
MSD Numerical Performance Indicator:		
MS Percent Recovery:		
MSD Percent Recovery:		
MS Status vs Numerical Indicator:		
MSD Status vs Numerical Indicator:		
MS Status vs Recovery:		
MSD Status vs Recovery:		
MS/MSD Upper % Recovery Limits:		
MS/MSD Lower % Recovery Limits:		

Duplicate Sample Assessment		
Sample I.D.:	LCS57639	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.	LCSD57639	
Sample Result (pCi/L, g, F):	5.488	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.884	
Sample Duplicate Result (pCi/L, g, F):	4.865	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.813	
Are sample and/or duplicate results below RL?	NO	
Duplicate Numerical Performance Indicator:	1.016	
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	11.88%	
Duplicate Status vs Numerical Indicator:	N/A	
Duplicate Status vs RPD:	Pass	
% RPD Limit:	25%	

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

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

Comments:

Quality Control Sample Performance Assessment

Pace Analytical
www.pacelabs.com

Test:	Ra-228
Analyst:	VAL
Date:	11/25/2020
Worklist:	57465
Matrix:	WT

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	2048526
MB concentration:	0.623
M/B 2 Sigma CSU:	0.506
MB MDC:	1.002
MB Numerical Performance Indicator:	2.42
MB Status vs Numerical Indicator:	Warning
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	Y
	LCS57465	LCSD57465
Count Date:	12/3/2020	12/3/2020
Spike I.D.:	20-030	20-030
Decay Corrected Spike Concentration (pCi/mL):	37.408	37.408
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.805	0.826
Target Conc. (pCi/L, g, F):	4.646	4.527
Uncertainty (Calculated):	0.228	0.222
Result (pCi/L, g, F):	3.570	4.606
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	0.862	1.105
Numerical Performance Indicator:	-2.37	0.14
Percent Recovery:	76.84%	101.73%
Status vs Numerical Indicator:	N/A	N/A
Status vs Recovery:	Pass	Pass
Upper % Recovery Limits:	135%	135%
Lower % Recovery Limits:	60%	60%

Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
Sample Collection Date:		
Sample I.D.		
Sample MS I.D.		
Sample MSD I.D.		
Spike I.D.:		
MS/MSD Decay Corrected Spike Concentration (pCi/mL):		
Spike Volume Used in MS (mL):		
Spike Volume Used in MSD (mL):		
MS Aliquot (L, g, F):		
MS Target Conc.(pCi/L, g, F):		
MSD Aliquot (L, g, F):		
MSD Target Conc. (pCi/L, g, F):		
MS Spike Uncertainty (calculated):		
MSD Spike Uncertainty (calculated):		
Sample Result:		
Sample Result 2 Sigma CSU (pCi/L, g, F):		
Sample Matrix Spike Result:		
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):		
Sample Matrix Spike Duplicate Result:		
Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):		
MS Numerical Performance Indicator:		
MSD Numerical Performance Indicator:		
MS Percent Recovery:		
MSD Percent Recovery:		
MS Status vs Numerical Indicator:		
MSD Status vs Numerical Indicator:		
MS Status vs Recovery:		
MSD Status vs Recovery:		
MS/MSD Upper % Recovery Limits:		
MS/MSD Lower % Recovery Limits:		

Duplicate Sample Assessment		
Sample I.D.:	LCS57465	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.	LCSD57465	
Sample Result (pCi/L, g, F):	3.570	
Sample Result 2 Sigma CSU (pCi/L, g, F):	0.862	
Sample Duplicate Result (pCi/L, g, F):	4.606	
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	1.105	
Are sample and/or duplicate results below RL?	NO	
Duplicate Numerical Performance Indicator:	-1.448	
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	27.88%	
Duplicate Status vs Numerical Indicator:	Pass	
Duplicate Status vs RPD:	Pass	
% RPD Limit:	36%	

Matrix Spike/Matrix Spike Duplicate Sample Assessment		
Sample I.D.		
Sample MS I.D.		
Sample MSD I.D.		
Sample Matrix Spike Result:		
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):		
Sample Matrix Spike Duplicate Result:		
Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):		
Duplicate Numerical Performance Indicator:		
(Based on the Percent Recoveries) MS/ MSD Duplicate RPD:		
MS/ MSD Duplicate Status vs Numerical Indicator:		
MS/ MSD Duplicate Status vs RPD:		
% RPD Limit:		

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

Comments:

12-4-20

APPENDIX B

Field Sampling Reports

August 2020

Scan Event

Groundwater Sampling Form

ARCADIS Design & Consultancy for natural and built assets

Project Number	30052922	**Well ID**	YGWC-52			**Date**	08/27/2020
Project Location	AP-1		**Weather(°F)**	81.0 degrees F and Cloudy. The wind is blowing S/SW at 12.1 mph.			
Measuring Pt. Description	Top of Inner Casing	**Screen Setting (ft-bmp)**	69.22-79.22	**Casing Diameter (in)**	2	**Well Casing Material**	PVC
Static Water Level (ft-bmp)	37.33	**Total Depth (ft-bmp)**	79.22	**Water Column(ft)**	33.46	**Gallons in Well**	5.44
MP Elevation	755.86	**Pump Intake (ft-bmp)**	74	**Purge Method**	Low-Flow	**Sample Method**	Low-Flow
Sample Time	17:55	**Well Volumes Purged**	0.40	**Sample ID**	YGWC-52(082720)	**Sampled by**	Becky Steever
Purge Start	16:26	**Gallons Purged**	2.16	**Replicate/ Code No.**	NA	**Clear**	Clear
Purge End	17:47						

Time	Total Elapsed Minutes	Rate (mL/min)	Depth to Water (ft)	pH (standard units)	Specific Conductivity (µS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)
16:26:39	00:00	100	37.33	6.1	353.28	9.8	5.1	29.8	70
16:31:39	05:00	100	37.36	6.3	520.66	78.2	5.0	23.1	82
16:36:39	10:00	100	37.4	6.6	519.57	103.1	4.5	22.4	44.9
16:41:39	15:00	100	37.43	6.5	457.88	84.3	9.0	22.2	24.6
16:43:21	16:42	100	37.44	6.4	432.56	98.4	8.5	22.6	36.2
16:48:21	21:42	100	37.46	6.1	382.35	82.6	8.8	22.3	53.4
16:53:21	26:42	100	37.47	5.9	352.03	45.4	8.9	21.9	71.4
16:58:21	31:42	100	37.46	5.8	340.42	28.7	8.8	22.0	84.7
17:03:21	36:42	100	37.46	5.8	334.54	15.0	8.7	21.8	93.3
17:08:21	41:42	100	37.45	5.8	331.43	9.6	8.6	22.0	100.1
17:13:21	46:42	100	37.45	5.8	328.58	6.8	8.5	22.1	103.3
17:18:21	51:42	100	37.45	5.8	325.91	5.8	8.6	21.8	104.6
17:23:21	56:42	100	37.45	5.8	323.3	6.1	8.5	21.9	105.5
17:28:21	01:42	100	37.45	5.8	323.61	10.6	8.5	21.8	105.8
17:33:21	06:42	100	37.46	5.8	323.05	7.9	8.5	21.5	105.6
17:38:21	11:42	100	37.46	5.8	321.51	8.3	8.4	21.6	106.8
17:43:21	16:42	100	37.46	5.8	320.15	5.1	8.4	21.6	107.9
17:48:21	21:42	100	37.46	5.8	317.32	1.6	8.3	21.5	109.8

Constituent Sampled	Container	Number	Preservative
Metals	250 mL Plastic	1	HNO3
RAD Chem	1L Plastic	2	HNO3
Anions	250 mL Plastic	1	None
TDS	500 mL Plastic	1	None

Comments:

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot 1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Well Information

Well Location: _____ Well Locked at Arrival: _____

Condition of Well: _____ Well Locked at Departure: _____

Well Completion: NA Key Number To Well: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute
mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
µS/cm = microSiemens per centimete

Groundwater Sampling Form

ARCADIS Design & Consultancy for natural and built assets

Project Number	30052922	**Well ID**	YGWA-47			**Date**	08/27/2020
Project Location	AP-1		**Weather(°F)**	76.6 degrees F and Fog/Mist. There is no wind.			
Measuring Pt. Description	Top of Inner Casing	**Screen Setting (ft-bmp)**	48.62-58.62	**Casing Diameter (in)**	2	**Well Casing Material**	PVC
Static Water Level (ft-bmp)	32.82	**Total Depth (ft-bmp)**	59.19	**Water Column(ft)**	26.37	**Gallons in Well**	4.28
MP Elevation	758.22	**Pump Intake (ft-bmp)**	54	**Purge Method**	Low-Flow	**Sample Method**	Low-Flow
Sample Time	11:55	**Well Volumes Purged**	1.23	**Sample ID**	YGWA-47(082720)	**Sampled by**	Becky Steever
Purge Start	09:15	**Gallons Purged**	5.26	**Replicate/ Code No.**	NA	**Color**	Clear
Purge End	12:10						

Time	Total Elapsed Minutes	Rate (mL/min)	Depth to Water (ft)	pH (standard units)	Specific Conductivity (µS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)
09:15:46	00:00	150	32.82	6.8	0.05	0	7.9	26.6	202.1
09:16:24	00:38	150	32.82	6.8	0.05	0	7.9	26.5	200.7
09:31:43	15:57	150	32.82	6.2	0.05	0	8.1	25.4	187.5
09:36:09	20:23	125	33.33	5.9	23.77	0	8.6	22.4	164.1
09:41:09	25:23	125	33.18	5.9	24.98	0	8.6	22.9	181.7
09:46:09	30:23	125	33.18	5.8	38.96	0	8.6	22.5	189.4
09:51:09	35:23	125	33.22	5.7	37.66	0	8.5	22.7	195.5
09:56:09	40:23	125	33.22	5.6	61.22	0	8.7	21.7	200.6
09:58:02	42:16	125	33.22	5.8	7.69	0	9.0	21.8	168.3
10:03:02	47:16	125	33.22	5.6	5.23	0	8.6	23.2	182.3
10:08:02	52:16	125	33.22	5.4	4.04	0	8.5	23.2	187.7
10:13:02	57:16	125	33.22	5.1	2.23	0	8.3	23.7	195.9
10:18:02	02:16	125	33.23	4.9	1.17	0	8.0	25.0	199.9
10:23:02	07:16	125	33.23	4.8	0.89	0	8.0	24.9	204.1
10:28:02	12:16	125	33.23	4.8	0.48	0	7.9	25.8	209.5
10:33:02	17:16	125	33.23	4.7	0.33	0	7.7	26.5	213.1
10:38:02	22:16	125	33.23	4.6	0.19	0	7.6	26.8	210.5
10:56:47	41:01	125	33.23	5.9	0.05	0	7.6	28.8	191.6
11:06:06	50:20	125	33.23	5.6	45.87	8.4	7.7	26.8	198.2
11:11:06	55:20	125	33.23	4.5	53.85	0	7.9	26.2	204.9
11:16:06	00:20	125	33.23	4.4	50.61	0	7.8	26.4	204.5
11:21:06	05:20	125	33.23	4.4	46.88	0	7.7	26.9	209.5
11:26:06	10:20	125	33.23	4.3	60.39	0	7.9	25.9	211.6
11:31:06	15:20	125	33.23	5.1	106.33	0	8.2	24.6	176.1
11:36:06	20:20	125	33.23	5.2	107.54	0	8.0	25.3	194.2
11:41:06	25:20	125	33.23	5.0	105.78	0	7.9	25.6	196.8
11:46:06	30:20	125	33.23	4.9	104.65	0	7.9	25.9	211.2
11:51:06	35:20	125	33.23	4.9	104.48	0	7.9	25.8	195.2

Constituent Sampled	Container	Number	Preservative
Metals	250 mL Plastic	1	HNO3
RAD Chem	1L Plastic	2	HNO3
Fluoride	250 mL Plastic	1	None

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute
mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
µS/cm = microSiemens per centimete

Groundwater Sampling Form

ARCADIS Design & Consultancy for natural and built assets

Comments:

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot 1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Well Information

Well Location:		Well Locked at Arrival:	
Condition of Well:		Well Locked at Departure:	
Well Completion:	NA	Key Number To Well:	NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute
mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
µS/cm = microSiemens per centimete

Groundwater Sampling Form

ARCADIS Design & Consultancy for natural and built assets

Project Number	30052922	**Well ID**	YGWC-46A			**Date**	08/28/2020
Project Location	AP-1		**Weather(°F)**	84.3 degrees F and Cloudy. The wind is blowing S/SW at 12.1 mph.			
Measuring Pt. Description	Top of Inner Casing	**Screen Setting (ft-bmp)**	60.79-70.79	**Casing Diameter (in)**	2	**Well Casing Material**	PVC
Static Water Level (ft-bmp)	38.3	**Total Depth (ft-bmp)**	79.22	**Water Column(ft)**	40.92	**Gallons in Well**	6.65
MP Elevation	733.04	**Pump Intake (ft-bmp)**	66	**Purge Method**	Low-Flow	**Sample Method**	Low-Flow
Sample Time	12:20	**Well Volumes Purged**	0.13	**Sample ID**	YGWC-46A(082820)	**Sampled by**	Becky Steever
Purge Start	11:17	**Gallons Purged**	0.89	**Replicate/ Code No.**	NA	**Color**	Clear

Purge End

Time	Total Elapsed Minutes	Rate (mL/min)	Depth to Water (ft)	pH (standard units)	Specific Conductivity (µS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)
11:17:33	00:00	150	38.30	7.0	912.47	0	6.0	24.2	51.2
11:22:33	05:00	100	39.70	7.1	908.59	0	2.4	22.6	-28.1
11:27:33	10:00	100	39.51	7.0	912.04	0	2.4	24.1	-23.9
11:32:33	15:00	100	39.51	7.1	908.39	0	2.3	25.2	-27.2
11:37:33	20:00	100	39.47	7.1	905.06	0	2.3	24.4	-35.1
11:42:33	25:00	100	39.50	7.2	915.86	0	2.2	23.7	-52.6
11:47:33	30:00	100	39.50	7.1	921.15	0	1.9	23.9	-60.9
11:52:33	35:00	100	39.51	7.1	919.35	0	1.1	24.2	-42.1
11:57:33	40:00	100	39.51	7.1	922.09	0	0.7	24.5	-43.0
12:02:33	45:00	100	39.52	7.1	915.17	0	0.5	24.4	-44.7
12:07:33	50:00	100	39.52	7.1	914.95	0	0.5	24.5	-47.8
12:12:33	55:00	100	39.52	7.1	914.58	0	0.6	24.5	-49.8

Constituent Sampled	Container	Number	Preservative
Metals	250 mL Plastic	1	HNO3
RAD Chem	1L Plastic	2	HNO3
Anions	250 mL Plastic	1	None
TDS	500 mL Plastic	1	None

Comments:

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot 1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Well Information

Well Location:
Condition of Well:
Well Completion: NA
Well Locked at Arrival:
Well Locked at Departure:
Key Number To Well: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute
mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
µS/cm = microSiemens per centimete

Groundwater Sampling Form

ARCADIS Design & Consultancy for natural and built assets

Project Number	30052922	**Well ID**	YGWC-44			**Date**	08/27/2020
Project Location	AP-1		**Weather(°F)**	76.6 degrees F and Fog/Mist. There is no wind.			
Measuring Pt. Description	Top of Inner Casing	**Screen Setting (ft-bmp)**	78.35-88.35	**Casing Diameter (in)**	2	**Well Casing Material**	PVC
Static Water Level (ft-bmp)	49.42	**Total Depth (ft-bmp)**	89.85	**Water Column(ft)**	40.43	**Gallons in Well**	6.57
MP Elevation	758.35	**Pump Intake (ft-bmp)**	84	**Purge Method**	Low-Flow	**Sample Method**	Low-Flow
Sample Time	14:21	**Well Volumes Purged**	0.35	**Sample ID**	YGWC-44 (082720)	**Sampled by**	Becky Steever
Purge Start	14:31	**Gallons Purged**	2.32	**Replicate/ Code No.**	NA	**Color**	Clear
Purge End	15:24						

Time	Total Elapsed Minutes	Rate ()	Depth to Water (ft)	pH (standard units)	Specific Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature (°C)	Redox (mV)
14:25	0	--	50.48	6.03	282.87	0	8.06	28.67	-176.22
14:10	1425	--	50.35	6.04	285.32	0	8.42	27.81	-180.47
14:30	5	--	50.35	6.04	279.77	0	7.78	29.36	-172.68
14:35	10	--	50.33	6.04	277.33	0	7.54	30.19	-168.7
14:40	15	--	50.38	6.03	273.44	0	3.55	30.52	-166.64
14:45	20	--	50.38	5.77	318.20	0	1.88	26.61	-41.25
14:50	25	--	50.38	5.77	312.81	0	2.08	24.78	-31.17
14:55	30	--	50.38	5.76	310.77	0	2.74	25.20	-4.23
15:00	35	--	50.38	5.75	309.44	0	2.15	24.95	18.86

Constituent Sampled	Container	Number	Preservative
Constituent Sampled	**Container**	**Number**	**Preservative**
Metals	250 mL Plastic	1	HNO3
RAD Chem	1L Plastic	2	HNO3
Fluoride	250 mL Plastic	1	None

Comments:

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot 1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Well Information

Well Location:
Condition of Well:
Well Completion: NA
Well Locked at Arrival:
Well Locked at Departure:
Key Number To Well: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute
mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
µS/cm = microSiemens per centimete

Groundwater Sampling Form

ARCADIS Design & Consultancy for natural and built assets

Project Number	30052922	**Well ID**	YGWC-45			**Date**	08/28/2020
Project Location	AP-1		**Weather(°F)**	77.9 degrees F and Mostly Cloudy. There is no wind.			
Measuring Pt. Description	Top of Inner Casing	**Screen Setting (ft-bmp)**	62.86-72.86	**Casing Diameter (in)**	2	**Well Casing Material**	PVC
Static Water Level (ft-bmp)	22.4	**Total Depth (ft-bmp)**	73.8	**Water Column(ft)**	51.4	**Gallons in Well**	8.35
MP Elevation	719.36	**Pump Intake (ft-bmp)**	69	**Purge Method**	Low-Flow	**Sample Method**	Low-Flow
Sample Time	10:15	**Well Volumes Purged**	0.14	**Sample ID**	YGWC-45(082820)	**Sampled by**	Becky Steever
Purge Start	09:38	**Gallons Purged**	1.19	**Replicate/ Code No.**	NA	**Color**	Clear
Purge End	11:02						

Time	Total Elapsed Minutes	Rate (mL/min)	Depth to Water (ft)	pH (standard units)	Specific Conductivity (µS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)
09:38:32	00:00	150	22.4	6.8	413.56	0	8.3	24.5	198.7
09:43:32	05:00	125	23.24	6.6	465.46	0	7.6	23.0	-85.1
09:48:32	10:00	125	23.24	6.4	447.24	0	8.0	22.9	-87.4
09:53:32	15:00	125	23.24	6.4	441.86	0	7.9	23.5	-74.4
09:58:32	20:00	125	23.24	6.4	438.93	0	7.8	24.0	-64.9
10:03:32	25:00	125	23.24	6.4	435.72	0	7.7	24.3	-54.5
10:08:32	30:00	125	23.24	6.4	435.66	0	7.7	24.6	-42.8

Constituent Sampled	Container	Number	Preservative
RAD Chem	1L Plastic	2	HNO3
Dissolved Metals	250 mL Plastic	1	HNO3
Anions-F	250 mL Plastic	1	None

Comments:

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot 1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Well Information

Well Location:
Condition of Well:
Well Completion: NA
Well Locked at Arrival: Yes
Well Locked at Departure:
Key Number To Well: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute
mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
µS/cm = microSiemens per centimete

August 2020 Daily Calibration Log

Project Plant Yates

Field Staff: Becky Steever/Jake Swanson

Instrument Calibration

Date: 8/26/20 Time: 1030

Parameter	Units	Standard	SmarTROLL SN 496336	SmarTROLL SN 685774
DO	% saturation	100	100	100
Conductivity	us/cm	8000	8000	8000
pH	S.U.	4.00	--	--
pH	S.U.	6.98	6.97	6.97
pH	S.U.	10.00	--	--
ORP	mV	217.0	213.0	213.0

Turbidity Standard	Units	LaMotte SN 8140-2616	LaMotte SN 511-5210
0.0	NTU	0.00	0.00
10.0	NTU	10.00	10.00

8/27/20 Time: 7:00

Parameter	Units	Standard	SmarTROLL SN 463068	SmarTROLL SN 685774
DO	% saturation	100	100	100
Conductivity	us/cm	8000	80000	80000
pH	S.U.	4.00	--	--
pH	S.U.	6.98	6.97	6.98
pH	S.U.	10.00	--	--
ORP	mV	220.0	220.3	220.4

Turbidity Standard	Units	LaMotte SN 8140-2616	LaMotte SN 511-5210
0.0	NTU	0.00	0.00
10.0	NTU	10.00	10.00

August 2020 Daily Calibration Log

Project Plant Yates

Field Staff: Becky Steever/Jake Swanson

Instrument Calibration

8/28/20 Time: 7:00

Parameter	Units	Standard	SmarTROLL SN 496336	SmarTROLL SN 685774
DO	% saturation	100	100	100
Conductivity	us/cm	8000	8000	8000
pH	S.U.	4.00	--	--
pH	S.U.	6.98	6.98	6.97
pH	S.U.	10.00	--	--
ORP	mV	224	223.3	220.2

Turbidity Standard	Units	LaMotte SN 1774-0212	LaMotte SN 1479-4011
0.0	NTU	0.00	0.00
10.0	NTU	10.00	10.00

Notes:

DO - Dissolved Oxygen; us/cm - microsiemens/centimeter; ORP - oxidation-reduction potential;

mV - millivolts; NTU - Nphelometric Turbidity Units; NC - Not calibrated

Groundwater Gauging Well

Project	AP-1				
Permit					
Well ID:	PZ-09I				
Person	Jake Swanson				
Date:	8/26/2020				
Time	11:22:00				
			Yes	No	N/A
1	Location Identification:				
	a	Is the well visible and accessible?	☑	☐	☐
	b	Is the well properly identified with the correct well ID?	☑	☐	☐
	c	Is the well in a high traffic area and does the well require protection from traffic?	☑	☐	☐
	d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	☑	☐	☐
2	Protective Casing:				
	a	Is the protective casing free from apparent damage and able to be secured?	☑	☐	☐
	b	Is the casing free of degradation or deterioration?	☑	☐	☐
	c	Does the casing have a functioning weep hole?	☑	☐	☐
	d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	☑	☐	☐
3	Surface Pad				
	a	Is the well pad in good condition (not cracked or broken)?	☑	☐	☐
	b	Is the well pad sloped away from the protective casing?	☑	☐	☐
	c	Is the well pad in complete contact with the protective casing?	☑	☐	☐
	d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	☑	☐	☐
	e	Is the pad surface clean (not covered with sediment or debris)?	☑	☐	☐
4	Internal Casing				
	a	Does the cap prevent entry of foreign material into the well?	☑	☐	☐
	b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	☑	☐	☐
	c	Is the well properly vented for equilibration of air pressure?	☑	☐	☐
	d	Is the survey point clearly marked on the inner casing?	☑	☐	☐
	e	Is the depth of the well consistent with the original well log?	☐	☐	☑
	f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	☑	☐	☐
5	Sampling: Groundwater Wells Only:				
	a	Does well recharge adequately when purged?	☐	☐	☐
	b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	☐	☐	☐
	c	Does the well require redevelopment (low flow, turbid)?	☐	☐	☐
6	Based on your professional judgement, is the well construction / location:				
		appropriate to 1) achieve the objectives of the Groundwater Monitoring Program	☐	☐	☐
		and 2) comply with the applicable regulatory requirements?	☐	☐	☐
7	Corrective actions as needed, by date:				
8	Date by when corrective actions are needed:				

Groundwater Gauging Well Inspection

Project Location:	AP-1				
Permit Number:					
Well ID:	PZ-09S				
Person Gauging:	Jake Swanson				
Date:	8/26/2020				
Time	11:27:00				
			Yes	No	N/A
1	Location Identification:				
	a	Is the well visible and accessible?	☑	☐	☐
	b	Is the well properly identified with the correct well ID?	☑	☐	☐
	c	Is the well in a high traffic area and does the well require protection from traffic?	☑	☐	☐
	d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	☑	☐	☐
2	Protective Casing:				
	a	Is the protective casing free from apparent damage and able to be secured?	☑	☐	☐
	b	Is the casing free of degradation or deterioration?	☑	☐	☐
	c	Does the casing have a functioning weep hole?	☑	☐	☐
	d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	☑	☐	☐
3	Surface Pad				
	a	Is the well pad in good condition (not cracked or broken)?	☑	☐	☐
	b	Is the well pad sloped away from the protective casing?	☑	☐	☐
	c	Is the well pad in complete contact with the protective casing?	☑	☐	☐
	d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	☑	☐	☐
	e	Is the pad surface clean (not covered with sediment or debris)?	☑	☐	☐
4	Internal Casing				
	a	Does the cap prevent entry of foreign material into the well?	☑	☐	☐
	b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	☑	☐	☐
	c	Is the well properly vented for equilibration of air pressure?	☑	☐	☐
	d	Is the survey point clearly marked on the inner casing?	☑	☐	☐
	e	Is the depth of the well consistent with the original well log?	☐	☐	☑
	f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	☑	☐	☐
5	Sampling: Groundwater Wells Only:				
	a	Does well recharge adequately when purged?	☐	☐	☐
	b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	☐	☐	☐
	c	Does the well require redevelopment (low flow, turbid)?	☐	☐	☐
6	Based on your professional judgement, is the well construction / location:				
		appropriate to 1) achieve the objectives of the Groundwater Monitoring Program	☐	☐	☐
		and 2) comply with the applicable regulatory requirements?	☐	☐	☐
7	Corrective actions as needed, by date:				
8	Date by when corrective actions are needed:				

Groundwater Gauging Well Inspection

Project Location:	AP-1
Permit Number:	
Well ID:	PZ-10S
Person Gauging:	Jake Swanson
Date:	8/26/2020
Time	11:13:00

			Yes	No	N/A
1	Location Identification:				
	a	Is the well visible and accessible?	☑	☐	☐
	b	Is the well properly identified with the correct well ID?	☑	☐	☐
	c	Is the well in a high traffic area and does the well require protection from traffic?	☑	☐	☐
	d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	☑	☐	☐
2	Protective Casing:				
	a	Is the protective casing free from apparent damage and able to be secured?	☑	☐	☐
	b	Is the casing free of degradation or deterioration?	☑	☐	☐
	c	Does the casing have a functioning weep hole?	☑	☐	☐
	d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	☑	☐	☐
3	Surface Pad				
	a	Is the well pad in good condition (not cracked or broken)?	☑	☐	☐
	b	Is the well pad sloped away from the protective casing?	☑	☐	☐
	c	Is the well pad in complete contact with the protective casing?	☑	☐	☐
	d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	☑	☐	☐
	e	Is the pad surface clean (not covered with sediment or debris)?	☑	☐	☐
4	Internal Casing				
	a	Does the cap prevent entry of foreign material into the well?	☑	☐	☐
	b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	☑	☐	☐
	c	Is the well properly vented for equilibration of air pressure?	☑	☐	☐
	d	Is the survey point clearly marked on the inner casing?	☑	☐	☐
	e	Is the depth of the well consistent with the original well log?	☐	☐	☑
	f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	☑	☐	☐
5	Sampling: Groundwater Wells Only:				
	a	Does well recharge adequately when purged?	☐	☐	☐
	b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	☐	☐	☐
	c	Does the well require redevelopment (low flow, turbid)?	☐	☐	☐
6	Based on your professional judgement, is the well construction / location:				
		appropriate to 1) achieve the objectives of the Groundwater Monitoring Program	☐	☐	☐
		and 2) comply with the applicable regulatory requirements?	☐	☐	☐
7	Corrective actions as needed, by date: Stick up has an ant nest inside it				
8	Date by when corrective actions are needed:				

Groundwater Gauging Well

Project	AP-1
Permit	
Well ID:	PZ-10I
Person	Jake Swanson
Date:	8/26/2020
Time	11:20:00

			Yes	No	N/A
1	Location Identification:				
	a	Is the well visible and accessible?	☑	☐	☐
	b	Is the well properly identified with the correct well ID?	☑	☐	☐
	c	Is the well in a high traffic area and does the well require protection from traffic?	☑	☐	☐
	d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	☑	☐	☐
2	Protective Casing:				
	a	Is the protective casing free from apparent damage and able to be secured?	☑	☐	☐
	b	Is the casing free of degradation or deterioration?	☑	☐	☐
	c	Does the casing have a functioning weep hole?	☑	☐	☐
	d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	☑	☐	☐
3	Surface Pad				
	a	Is the well pad in good condition (not cracked or broken)?	☑	☐	☐
	b	Is the well pad sloped away from the protective casing?	☑	☐	☐
	c	Is the well pad in complete contact with the protective casing?	☐	☐	☑
	d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	☑	☐	☐
	e	Is the pad surface clean (not covered with sediment or debris)?	☑	☐	☐
4	Internal Casing				
	a	Does the cap prevent entry of foreign material into the well?	☑	☐	☐
	b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	☑	☐	☐
	c	Is the well properly vented for equilibration of air pressure?	☑	☐	☐
	d	Is the survey point clearly marked on the inner casing?	☑	☐	☐
	e	Is the depth of the well consistent with the original well log?	☐	☐	☑
	f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	☑	☐	☐
5	Sampling: Groundwater Wells Only:				
	a	Does well recharge adequately when purged?	☐	☐	☐
	b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	☐	☐	☐
	c	Does the well require redevelopment (low flow, turbid)?	☐	☐	☐
6	Based on your professional judgement, is the well construction / location:				
		appropriate to 1) achieve the objectives of the Groundwater Monitoring Program	☐	☐	☐
		and 2) comply with the applicable regulatory requirements?	☐	☐	☐
7	Corrective actions as needed, by date:				
8	Date by when corrective actions are needed:				

Groundwater Gauging Well Inspection

Project Location:	AP-1				
Permit Number:					
Well ID:	YGWC-44				
Person Gauging:	Jake Swanson				
Date:	8/26/2020				
Time	11:33:00				
			Yes	No	N/A
1	Location Identification:				
	a	Is the well visible and accessible?	☑	☐	☐
	b	Is the well properly identified with the correct well ID?	☑	☐	☐
	c	Is the well in a high traffic area and does the well require protection from traffic?	☑	☐	☐
	d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	☑	☐	☐
2	Protective Casing:				
	a	Is the protective casing free from apparent damage and able to be secured?	☑	☐	☐
	b	Is the casing free of degradation or deterioration?	☑	☐	☐
	c	Does the casing have a functioning weep hole?	☑	☐	☐
	d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	☑	☐	☐
3	Surface Pad				
	a	Is the well pad in good condition (not cracked or broken)?	☑	☐	☐
	b	Is the well pad sloped away from the protective casing?	☑	☐	☐
	c	Is the well pad in complete contact with the protective casing?	☑	☐	☐
	d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	☑	☐	☐
	e	Is the pad surface clean (not covered with sediment or debris)?	☑	☐	☐
4	Internal Casing				
	a	Does the cap prevent entry of foreign material into the well?	☑	☐	☐
	b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	☑	☐	☐
	c	Is the well properly vented for equilibration of air pressure?	☑	☐	☐
	d	Is the survey point clearly marked on the inner casing?	☑	☐	☐
	e	Is the depth of the well consistent with the original well log?	☐	☐	☑
	f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	☑	☐	☐
5	Sampling: Groundwater Wells Only:				
	a	Does well recharge adequately when purged?	☐	☐	☐
	b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	☐	☐	☐
	c	Does the well require redevelopment (low flow, turbid)?	☐	☐	☐
6	Based on your professional judgement, is the well construction / location:				
		appropriate to 1) achieve the objectives of the Groundwater Monitoring Program	☐	☐	☐
		and 2) comply with the applicable regulatory requirements?	☐	☐	☐
7	Corrective actions as needed, by date:				
	Ants inside stick up				
8	Date by when corrective actions are needed:				

Groundwater Gauging Well Inspection

Project	AP-1				
Permit Number:					
Well ID:	YGWC-45				
Person Gauging:	Jake Swanson				
Date:	8/26/2020				
Time	11:29:00				
			Yes	No	N/A
1	Location Identification:				
	a	Is the well visible and accessible?	☑	☐	☐
	b	Is the well properly identified with the correct well ID?	☑	☐	☐
	c	Is the well in a high traffic area and does the well require protection from traffic?	☑	☐	☐
	d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	☑	☐	☐
2	Protective Casing:				
	a	Is the protective casing free from apparent damage and able to be secured?	☑	☐	☐
	b	Is the casing free of degradation or deterioration?	☑	☐	☐
	c	Does the casing have a functioning weep hole?	☑	☐	☐
	d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	☑	☐	☐
3	Surface Pad				
	a	Is the well pad in good condition (not cracked or broken)?	☑	☐	☐
	b	Is the well pad sloped away from the protective casing?	☑	☐	☐
	c	Is the well pad in complete contact with the protective casing?	☑	☐	☐
	d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	☑	☐	☐
	e	Is the pad surface clean (not covered with sediment or debris)?	☑	☐	☐
4	Internal Casing				
	a	Does the cap prevent entry of foreign material into the well?	☑	☐	☐
	b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	☑	☐	☐
	c	Is the well properly vented for equilibration of air pressure?	☑	☐	☐
	d	Is the survey point clearly marked on the inner casing?	☑	☐	☐
	e	Is the depth of the well consistent with the original well log?	☐	☐	☑
	f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	☑	☐	☐
5	Sampling: Groundwater Wells Only:				
	a	Does well recharge adequately when purged?	☐	☐	☐
	b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	☐	☐	☐
	c	Does the well require redevelopment (low flow, turbid)?	☐	☐	☐
6	Based on your professional judgement, is the well construction / location:				
		appropriate to 1) achieve the objectives of the Groundwater Monitoring Program	☐	☐	☐
		and 2) comply with the applicable regulatory requirements?	☐	☐	☐
7	Corrective actions as needed, by date:				
8	Date by when corrective actions are needed:				

Groundwater Gauging Well Inspection

Project Location:	AP-1				
Permit Number:					
Well ID:	YGWC-46A				
Person Gauging:	Jake Swanson				
Date:	8/26/2020				
Time	11:11:00				
			Yes	No	N/A
1	Location Identification:				
	a	Is the well visible and accessible?	☑	☐	☐
	b	Is the well properly identified with the correct well ID?	☑	☐	☐
	c	Is the well in a high traffic area and does the well require protection from traffic?	☑	☐	☐
	d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	☑	☐	☐
2	Protective Casing:				
	a	Is the protective casing free from apparent damage and able to be secured?	☑	☐	☐
	b	Is the casing free of degradation or deterioration?	☑	☐	☐
	c	Does the casing have a functioning weep hole?	☑	☐	☐
	d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	☑	☐	☐
3	Surface Pad				
	a	Is the well pad in good condition (not cracked or broken)?	☑	☐	☐
	b	Is the well pad sloped away from the protective casing?	☑	☐	☐
	c	Is the well pad in complete contact with the protective casing?	☑	☐	☐
	d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	☑	☐	☐
	e	Is the pad surface clean (not covered with sediment or debris)?	☑	☐	☐
4	Internal Casing				
	a	Does the cap prevent entry of foreign material into the well?	☐	☐	☑
	b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	☑	☐	☐
	c	Is the well properly vented for equilibration of air pressure?	☑	☐	☐
	d	Is the survey point clearly marked on the inner casing?	☑	☐	☐
	e	Is the depth of the well consistent with the original well log?	☐	☐	☑
	f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	☑	☐	☐
5	Sampling: Groundwater Wells Only:				
	a	Does well recharge adequately when purged?	☐	☐	☑
	b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	☐	☐	☑
	c	Does the well require redevelopment (low flow, turbid)?	☐	☐	☑
6	Based on your professional judgement, is the well construction / location:				
		appropriate to 1) achieve the objectives of the Groundwater Monitoring Program	☐	☐	☑
		and 2) comply with the applicable regulatory requirements?	☐	☐	☐
7	Corrective actions as needed, by date: No cap over dedicated port				
8	Date by when corrective actions are needed:				

Groundwater Gauging Well Inspection

Project Location:	AP-1
Permit Number:	
Well ID:	YGWA-47
Person Gauging:	Jake Swanson
Date:	8/26/2020
Time	11:45:00

			Yes	No	N/A
1	Location Identification:				
	a	Is the well visible and accessible?	☑	☐	☐
	b	Is the well properly identified with the correct well ID?	☑	☐	☐
	c	Is the well in a high traffic area and does the well require protection from traffic?	☑	☐	☐
	d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	☑	☐	☐
2	Protective Casing:				
	a	Is the protective casing free from apparent damage and able to be secured?	☑	☐	☐
	b	Is the casing free of degradation or deterioration?	☑	☐	☐
	c	Does the casing have a functioning weep hole?	☑	☐	☐
	d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	☑	☐	☐
3	Surface Pad				
	a	Is the well pad in good condition (not cracked or broken)?	☑	☐	☐
	b	Is the well pad sloped away from the protective casing?	☑	☐	☐
	c	Is the well pad in complete contact with the protective casing?	☑	☐	☐
	d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	☑	☐	☐
	e	Is the pad surface clean (not covered with sediment or debris)?	☑	☐	☐
4	Internal Casing				
	a	Does the cap prevent entry of foreign material into the well?	☑	☐	☐
	b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	☑	☐	☐
	c	Is the well properly vented for equilibration of air pressure?	☑	☐	☐
	d	Is the survey point clearly marked on the inner casing?	☑	☐	☐
	e	Is the depth of the well consistent with the original well log?	☐	☐	☑
	f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	☑	☐	☐
5	Sampling: Groundwater Wells Only:				
	a	Does well recharge adequately when purged?	☐	☐	☐
	b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	☐	☐	☐
	c	Does the well require redevelopment (low flow, turbid)?	☐	☐	☐
6	Based on your professional judgement, is the well construction / location:				
		appropriate to 1) achieve the objectives of the Groundwater Monitoring Program	☐	☐	☐
		and 2) comply with the applicable regulatory requirements?	☐	☐	☐
7	Corrective actions as needed, by date:				
8	Date by when corrective actions are needed:				

Groundwater Gauging Well Inspection

Project Location:	AP-1				
Permit Number:					
Well ID:	YGWC-52				
Person Gauging:	Jake Swanson				
Date:	8/26/2020				
Time	11:40:00				
			Yes	No	N/A
1	Location Identification:				
	a	Is the well visible and accessible?	☑	☐	☐
	b	Is the well properly identified with the correct well ID?	☑	☐	☐
	c	Is the well in a high traffic area and does the well require protection from traffic?	☑	☐	☐
	d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	☑	☐	☐
2	Protective Casing:				
	a	Is the protective casing free from apparent damage and able to be secured?	☑	☐	☐
	b	Is the casing free of degradation or deterioration?	☑	☐	☐
	c	Does the casing have a functioning weep hole?	☑	☐	☐
	d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	☑	☐	☐
3	Surface Pad				
	a	Is the well pad in good condition (not cracked or broken)?	☑	☐	☐
	b	Is the well pad sloped away from the protective casing?	☑	☐	☐
	c	Is the well pad in complete contact with the protective casing?	☑	☐	☐
	d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	☑	☐	☐
	e	Is the pad surface clean (not covered with sediment or debris)?	☑	☐	☐
4	Internal Casing				
	a	Does the cap prevent entry of foreign material into the well?	☑	☐	☐
	b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	☑	☐	☐
	c	Is the well properly vented for equilibration of air pressure?	☑	☐	☐
	d	Is the survey point clearly marked on the inner casing?	☑	☐	☐
	e	Is the depth of the well consistent with the original well log?	☐	☐	☑
	f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	☑	☐	☐
5	Sampling: Groundwater Wells Only:				
	a	Does well recharge adequately when purged?	☐	☐	☐
	b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	☐	☐	☐
	c	Does the well require redevelopment (low flow, turbid)?	☐	☐	☐
6	Based on your professional judgement, is the well construction / location:				
		appropriate to 1) achieve the objectives of the Groundwater Monitoring Program	☐	☐	☐
		and 2) comply with the applicable regulatory requirements?	☐	☐	☐
7	Corrective actions as needed, by date: Note- tubing was observed at well. Left over from install or development?				
8	Date by when corrective actions are needed:				

Groundwater Gauging Well Inspection

Project Location:	AP-1				
Permit Number:					
Well ID:	PZ-53				
Person Gauging:	Jake Swanson				
Date:	8/26/2020				
Time	10:46:00				
			Yes	No	N/A
1	Location Identification:				
	a	Is the well visible and accessible?	☑	☐	☐
	b	Is the well properly identified with the correct well ID?	☑	☐	☐
	c	Is the well in a high traffic area and does the well require protection from traffic?	☑	☐	☐
	d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	☑	☐	☐
2	Protective Casing:				
	a	Is the protective casing free from apparent damage and able to be secured?	☑	☐	☐
	b	Is the casing free of degradation or deterioration?	☑	☐	☐
	c	Does the casing have a functioning weep hole?	☑	☐	☐
	d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	☑	☐	☐
3	Surface Pad				
	a	Is the well pad in good condition (not cracked or broken)?	☑	☐	☐
	b	Is the well pad sloped away from the protective casing?	☑	☐	☐
	c	Is the well pad in complete contact with the protective casing?	☑	☐	☐
	d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	☑	☐	☐
	e	Is the pad surface clean (not covered with sediment or debris)?	☑	☐	☐
4	Internal Casing				
	a	Does the cap prevent entry of foreign material into the well?	☑	☐	☐
	b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	☑	☐	☐
	c	Is the well properly vented for equilibration of air pressure?	☑	☐	☐
	d	Is the survey point clearly marked on the inner casing?	☑	☐	☐
	e	Is the depth of the well consistent with the original well log?	☐	☐	☑
	f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	☑	☐	☐
5	Sampling: Groundwater Wells Only:				
	a	Does well recharge adequately when purged?	☐	☐	☐
	b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	☐	☐	☐
	c	Does the well require redevelopment (low flow, turbid)?	☐	☐	☐
6	Based on your professional judgement, is the well construction / location:				
		appropriate to 1) achieve the objectives of the Groundwater Monitoring Program	☐	☐	☐
		and 2) comply with the applicable regulatory requirements?	☐	☐	☐
7	Corrective actions as needed, by date:				
8	Date by when corrective actions are needed:				

September 2020

Semiannual Event

Groundwater Sampling Form

ARCADIS Design & Consultancy for natural and built assets

Project Number	30053437	**Well ID**	YGWC-52			**Date**	09/22/2020
Project Location	AP-1		**Weather(°F)**	69.6 degrees F and Clear. The wind is blowing undefined at 0.0 mph.			
Measuring Pt. Description	Top of Inner Casing	**Screen Setting (ft-bmp)**	69.22-79.22	**Casing Diameter (in)**	2	**Well Casing Material**	PVC
Static Water Level (ft-bmp)	37.12	**Total Depth (ft-bmp)**	70.79	**Water Column(ft)**	33.67	**Gallons in Well**	5.47
MP Elevation	755.86	**Pump Intake (ft-bmp)**	74	**Purge Method**	Low-Flow	**Sample Method**	Low-Flow
Sample Time	13:45	**Well Volumes Purged**	0.39	**Sample ID**	YGWC-52(092220)	**Sampled by**	Katie Pupkiewicz
Purge Start	12:48	**Gallons Purged**	2.11	**Replicate/ Code No.**	NA	**Color**	Clear
Purge End	14:01						

Time	Total Elapsed Minutes	Rate (mL/min)	Depth to Water (ft)	pH (standard units)	Specific Conductivity (µS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)
12:48:37	00:00	160	37.83	6.3	556.04	96.2	5.6	22.6	99.4
12:53:37	05:00	160	37.86	6.2	539.95	88.2	5.5	21.6	101.1
12:58:37	10:00	160	37.87	6.1	532.25	71.5	6.5	21.2	117.3
13:03:37	15:00	160	37.9	6.0	520.05	44.0	6.1	21.0	131.5
13:08:37	20:00	160	37.93	5.9	510.33	40.9	5.2	21.2	142.7
13:13:37	25:00	160	37.92	6.0	505.23	32.5	4.3	21.7	145.1
13:18:37	30:00	160	37.92	6.0	497.59	34.5	3.8	21.4	148.9
13:23:37	35:00	160	37.91	5.9	493.3	37.0	4.3	21.3	158
13:28:37	40:00	160	37.91	5.9	492.33	33.9	4.2	21.4	160.7
13:33:37	45:00	160	37.91	5.9	486.53	36.7	4.2	21.3	163.8
13:38:37	50:00	160	37.92	5.9	484.03	45.9	4.0	21.4	166.4

Constituent Sampled	Container	Number	Preservative
Metals	250 mL Plastic	1	HNO3
RAD Chem	1L Plastic	2	HNO3
TDS	500 mL Plastic	1	None
Anions	250 mL Plastic	1	None

Comments: Final turbidity reading is 3.24.

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot

1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Well Information

Well Location:

Condition of Well:

Well Completion: NA

Well Locked at Arrival:

Well Locked at Departure:

Key Number To Well: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute
mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
µS/cm = microSiemens per centimete

Groundwater Sampling Form

ARCADIS Design & Consultancy for natural and built assets

Project Number	30053437	**Well ID**	YGWC-44			**Date**	09/22/2020
Project Location	AP-1		**Weather(°F)**	71.4 degrees F and Partly Cloudy. The wind is blowing E/NE at 16.9 mph.			
Measuring Pt. Description	Top of Inner Casing	**Screen Setting (ft-bmp)**	78.35-88.35	**Casing Diameter (in)**	2	**Well Casing Material**	PVC
Static Water Level (ft-bmp)	49.7	**Total Depth (ft-bmp)**	89.85	**Water Column(ft)**	40.15	**Gallons in Well**	6.52
MP Elevation	758.35	**Pump Intake (ft-bmp)**	84	**Purge Method**	Low-Flow	**Sample Method**	Low-Flow
Sample Time	16:48	**Well Volumes Purged**	0.36	**Sample ID**	YGWC-44(092220)	**Sampled by**	Katie Pupkiewicz
Purge Start	15:46	**Gallons Purged**	2.32	**Replicate/ Code No.**	NA	**Color**	Clear
Purge End	17:00						

Time	Total Elapsed Minutes	Rate (mL/min)	Depth to Water (ft)	pH (standard units)	Specific Conductivity (µS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)
15:46:55	00:00	160	53.5	5.4	474.4	1.3	0.4	20.9	32.5
15:51:55	05:00	160	53.93	5.6	118.45	1.0	0.4	21.0	27.4
15:56:55	10:00	160	54.35	5.2	0.06	228.9	0.8	22.9	65.2
16:01:55	15:00	160	54.65	5.4	0.06	1.1	0.4	22.4	45.8
16:06:55	20:00	160	55.02	5.0	0.06	7.6	0.9	22.6	47.1
16:11:55	25:00	160	55.19	5.7	0.06	1.0	0.4	21.9	23.1
16:16:55	30:00	160	55.35	5.6	451.06	1.0	0.5	20.3	23.2
16:21:55	35:00	160	55.52	5.3	430.13	1.0	0.3	20.4	52.1
16:26:55	40:00	160	55.61	5.1	419.64	1.0	0.3	20.4	61.4
16:31:55	45:00	160	55.7	5.6	448.05	1.0	0.2	19.9	30.0
16:36:55	50:00	160	55.84	5.6	457.86	1.1	0.2	19.6	9.8
16:41:55	55:00	160	55.94	5.5	448.90	1.0	0.2	19.7	0.7

Constituent Sampled	Container	Number	Preservative
Metals	250 mL Plastic	1	HNO3
RAD Chem	1L Plastic	2	HNO3
Anions	250 mL Plastic	1	None
TDS	500 mL Plastic	1	None

Comments: Final turbidity is 1.02

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot

1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Well Information

Well Location:

Condition of Well:

Well Completion: NA

Well Locked at Arrival:

Well Locked at Departure:

Key Number To Well: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute
mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
µS/cm = microSiemens per centimete

Groundwater Sampling Form

ARCADIS Design & Consultancy for natural and built assets

Project Number	30053437	**Well ID**	YGWC-45			**Date**	09/23/2020
Project Location	AP-1		**Weather(°F)**	61.2 degrees F and Cloudy. The wind is blowing undefined at 0.0 mph.			
Measuring Pt. Description	Top of Inner Casing	**Screen Setting (ft-bmp)**	62.86-72.86	**Casing Diameter (in)**	2	**Well Casing Material**	PVC
Static Water Level (ft-bmp)	22.35	**Total Depth (ft-bmp)**	73.8	**Water Column(ft)**	51.45	**Gallons in Well**	8.36
MP Elevation	719.36	**Pump Intake (ft-bmp)**	69	**Purge Method**	Low-Flow	**Sample Method**	Low-Flow
Sample Time	09:15	**Well Volumes Purged**	0.14	**Sample ID**	YGWC-45(092320)	**Sampled by**	Katie Pupkiewicz
Purge Start	08:45	**Gallons Purged**	1.19	**Replicate/ Code No.**	FB(092320)	**Color**	Clear
Purge End	09:25						

Time	Total Elapsed Minutes	Rate (mL/min)	Depth to Water (ft)	pH (standard units)	Specific Conductivity (µS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)
08:45:35	00:00	180	24.15	6.3	572.34	2.5	3.8	18.6	-38.2
08:50:35	05:00	180	24.70	6.3	570.21	1.8	3.9	18.4	8.7
08:55:35	10:00	180	25.13	6.4	572.23	1.3	3.1	18.4	21.4
09:00:35	15:00	180	25.49	6.5	575.01	0.8	3.0	18.3	16.2
09:05:35	20:00	180	25.66	6.5	576.03	0.8	3.3	18.3	3.6
09:10:35	25:00	180	25.76	6.6	577.51	0.8	3.3	18.3	-7.2

Constituent Sampled	Container	Number	Preservative
RAD Chem	1L Plastic	2	HNO3
Anions	250 mL Plastic	1	None
TDS	500 mL Plastic	1	None
Metals	250 mL Plastic	1	HNO3

Comments: Final turbidity is 1.60

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot

1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Well Information

Well Location:

Condition of Well:

Well Completion: NA

Well Locked at Arrival:

Well Locked at Departure:

Key Number To Well: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute
mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
µS/cm = microSiemens per centimete

Groundwater Sampling Form

ARCADIS Design & Consultancy for natural and built assets

Project Number	30053437	**Well ID**	YGWC-46A			**Date**	09/23/2020
Project Location	AP-1		**Weather(°F)**	61.2 degrees F and Cloudy. The wind is blowing undefined at 0.0 mph.			
Measuring Pt. Description	Top of Inner Casing	**Screen Setting (ft-bmp)**	60.79-70.79	**Casing Diameter (in)**	2	**Well Casing Material**	PVC
Static Water Level (ft-bmp)	38.16	**Total Depth (ft-bmp)**	79.22	**Water Column(ft)**	41.06	**Gallons in Well**	6.67
MP Elevation	733.04	**Pump Intake (ft-bmp)**	66	**Purge Method**	Low-Flow	**Sample Method**	Low-Flow
Sample Time	11:05	**Well Volumes Purged**	0.36	**Sample ID**	YGWC-46A(092320)	**Sampled by**	Katie Pupkiewicz
Purge Start	10:06	**Gallons Purged**	2.43	**Replicate/ Code No.**	DUP-01(092320)	**Color**	Clear
Purge End	11:35						

Time	Total Elapsed Minutes	Rate (mL/min)	Depth to Water (ft)	pH (standard units)	Specific Conductivity (µS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)
10:06:06	00:00	200	39.58	7.1	1063.42	0.8	2.3	20.7	-57.0
10:11:06	05:00	200	40.88	7.1	1052.49	3.7	0.6	20.5	-78.0
10:16:06	10:00	160	41.75	7.1	1047.7	18.3	0.9	20.8	-75.4
10:21:06	15:00	160	42.28	7.1	1029.91	1.5	8.9	20.9	-73.0
10:26:06	20:00	160	42.49	7.0	962.01	1.2	9.1	21.3	-25.6
10:31:06	25:00	160	42.7	6.9	947.67	1.2	8.9	21.4	-25.5
10:36:06	30:00	160	42.93	6.9	947.2	1.2	8.6	21.4	-20.9
10:41:06	35:00	160	43.15	6.9	941.39	1.2	8.6	21.2	-15.5
10:46:06	40:00	160	43.22	6.9	1033.13	1.2	9.1	21.2	-10.7
10:51:06	45:00	160	43.35	6.8	936.94	1.2	8.9	21.3	-5.9
10:56:06	50:00	160	43.5	6.8	932.96	1.2	8.6	21.3	-3.0
11:01:06	55:00	160	43.61	6.8	927.56	1.2	8.4	21.4	0.5

Constituent Sampled	Container	Number	Preservative
Metals	250 mL Plastic	1	HNO3
RAD Chem	1L Plastic	2	HNO3
Anions	250 mL Plastic	1	None
TDS	500 mL Plastic	1	None

Comments: EB 10:35. Final turbidity is 0.75

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot

1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Well Information

Well Location:

Condition of Well:

Well Completion: NA

Well Locked at Arrival:

Well Locked at Departure:

Key Number To Well: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute
mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
µS/cm = microSiemens per centimete

Groundwater Sampling Form

ARCADIS Design & Consultancy for natural and built assets

Project Number	30053437	**Well ID**	YGWA-47			**Date**	09/22/2020
Project Location	AP-1		**Weather(°F)**	32.0 degrees F and Clear. The wind is blowing undefined at 0.0 mph.			
Measuring Pt. Description	Top of Inner Casing	**Screen Setting (ft-bmp)**	48.62-58.62	**Casing Diameter (in)**	2	**Well Casing Material**	PVC
Static Water Level (ft-bmp)	34.4	**Total Depth (ft-bmp)**	59.19	**Water Column(ft)**	24.79	**Gallons in Well**	4.03
MP Elevation	758.22	**Pump Intake (ft-bmp)**	54	**Purge Method**	Low-Flow	**Sample Method**	Low-Flow
Sample Time	10:15	**Well Volumes Purged**	0.34	**Sample ID**	YGWA-47(092220)	**Sampled by**	Katie Pupkiewicz
Purge Start	08:37	**Gallons Purged**	1.36	**Replicate/ Code No.**	NA	**Color**	Clear
Purge End	10:24						

Time	Total Elapsed Minutes	Rate (mL/min)	Depth to Water (ft)	pH (standard units)	Specific Conductivity (µS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)
08:37:05	00:00	120	33.4	5.4	235.25	0.8	4.9	18.1	227
08:42:05	05:00	120	33.9	5.3	222.32	0.8	4.5	17.8	222.3
08:44:52	07:47	120	34	5.3	224.92	0.8	4.3	17.7	221.5
08:49:52	12:47	120	34	5.3	221.9	0.7	4.1	17.8	219
08:54:52	17:47	120	34	5.3	221.69	0.8	4.1	17.8	216.5
08:59:52	22:47	120	34	5.4	222.58	0.8	4.4	17.9	212.1
09:04:52	27:47	120	34	5.4	223.04	0.8	4.1	17.9	209.4
09:09:52	32:47	120	34	5.4	223.82	0.8	4.1	17.9	206.4
09:14:52	37:47	120	34	5.4	224.55	0.8	4.2	17.9	205.6
09:19:52	42:47	120	34	5.5	224.99	0.7	4.1	18	202.1

Constituent Sampled	Container	Number	Preservative
Metals	250 mL Plastic	1	HNO3
RAD Chem	1L Plastic	2	HNO3
TDS	500 mL Plastic	1	None
Anions	250 mL Plastic	1	None

Comments: Final turbidity measured at 0.48

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot 1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Well Information

Well Location:

Condition of Well:

Well Completion: NA

Well Locked at Arrival:

Well Locked at Departure:

Key Number To Well: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute
mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
µS/cm = microSiemens per centimete

Groundwater Gauging Well Inspection Report

Project Location:		AP-1			
Permit Number:					
Well ID:		PZ-09I			
Person Gauging:		Katie Pupkiewicz			
Date:		9/21/2020			
Time		11:15:00			
			Yes	No	N/A
1	Location Identification:				
	a	Is the well visible and accessible?	☑	☐	☐
	b	Is the well properly identified with the correct well ID?	☑	☐	☐
	c	Is the well in a high traffic area and does the well require protection from traffic?	☐	☑	☐
	d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	☑	☐	☐
2	Protective Casing:				
	a	Is the protective casing free from apparent damage and able to be secured?	☑	☐	☐
	b	Is the casing free of degradation or deterioration?	☑	☐	☐
	c	Does the casing have a functioning weep hole?	☑	☐	☐
	d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	☑	☐	☐
3	Surface Pad				
	a	Is the well pad in good condition (not cracked or broken)?	☑	☐	☐
	b	Is the well pad sloped away from the protective casing?	☑	☐	☐
	c	Is the well pad in complete contact with the protective casing?	☑	☐	☐
	d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	☑	☐	☐
	e	Is the pad surface clean (not covered with sediment or debris)?	☑	☐	☐
4	Internal Casing				
	a	Does the cap prevent entry of foreign material into the well?	☑	☐	☐
	b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	☑	☐	☐
	c	Is the well properly vented for equilibration of air pressure?	☑	☐	☐
	d	Is the survey point clearly marked on the inner casing?	☑	☐	☐
	e	Is the depth of the well consistent with the original well log?	☑	☐	☐
	f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	☑	☐	☐
5	Sampling: Groundwater Wells Only:				
	a	Does well recharge adequately when purged?	☐	☐	☑
	b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	☐	☐	☑
	c	Does the well require redevelopment (low flow, turbid)?	☐	☐	☑
6	Based on your professional judgement, is the well construction / location:				
		appropriate to 1) achieve the objectives of the Groundwater Monitoring Program	☑	☐	☐
		and 2) comply with the applicable regulatory requirements?	☑	☐	☐
7	Corrective actions as needed, by date:				
8	Date by when corrective actions are needed:				

Groundwater Gauging Well Inspection Report

Project Location:	AP-1
Permit Number:	
Well ID:	PZ-09S
Person Gauging:	Katie Pupkiewicz
Date:	9/21/2020
Time	11:18:00

			Yes	No	N/A
1	Location Identification:				
	a	Is the well visible and accessible?	☑	☐	☐
	b	Is the well properly identified with the correct well ID?	☑	☐	☐
	c	Is the well in a high traffic area and does the well require protection from traffic?	☐	☑	☐
	d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	☑	☐	☐
2	Protective Casing:				
	a	Is the protective casing free from apparent damage and able to be secured?	☑	☐	☐
	b	Is the casing free of degradation or deterioration?	☑	☐	☐
	c	Does the casing have a functioning weep hole?	☑	☐	☐
	d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	☑	☐	☐
3	Surface Pad				
	a	Is the well pad in good condition (not cracked or broken)?	☑	☐	☐
	b	Is the well pad sloped away from the protective casing?	☑	☐	☐
	c	Is the well pad in complete contact with the protective casing?	☑	☐	☐
	d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	☑	☐	☐
	e	Is the pad surface clean (not covered with sediment or debris)?	☑	☐	☐
4	Internal Casing				
	a	Does the cap prevent entry of foreign material into the well?	☑	☐	☐
	b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	☑	☐	☐
	c	Is the well properly vented for equilibration of air pressure?	☑	☐	☐
	d	Is the survey point clearly marked on the inner casing?	☑	☐	☐
	e	Is the depth of the well consistent with the original well log?	☑	☐	☐
	f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	☑	☐	☐
5	Sampling: Groundwater Wells Only:				
	a	Does well recharge adequately when purged?	☐	☐	☑
	b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	☐	☐	☑
	c	Does the well require redevelopment (low flow, turbid)?	☐	☐	☑
6	Based on your professional judgement, is the well construction / location:				
		appropriate to 1) achieve the objectives of the Groundwater Monitoring Program	☑	☐	☐
		and 2) comply with the applicable regulatory requirements?	☑	☐	☐
7	Corrective actions as needed, by date:				
8	Date by when corrective actions are needed:				

Groundwater Gauging Well Inspection Report

Project Location:		AP-1			
Permit Number:					
Well ID:		PZ-10I			
Person Gauging:		Katie Pupkiewicz			
Date:		9/21/2020			
Time		11:19:00			
			Yes	No	N/A
1	Location Identification:				
	a	Is the well visible and accessible?	☑	☐	☐
	b	Is the well properly identified with the correct well ID?	☑	☐	☐
	c	Is the well in a high traffic area and does the well require protection from traffic?	☐	☑	☐
	d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	☑	☐	☐
2	Protective Casing:				
	a	Is the protective casing free from apparent damage and able to be secured?	☑	☐	☐
	b	Is the casing free of degradation or deterioration?	☑	☐	☐
	c	Does the casing have a functioning weep hole?	☑	☐	☐
	d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	☑	☐	☐
3	Surface Pad				
	a	Is the well pad in good condition (not cracked or broken)?	☑	☐	☐
	b	Is the well pad sloped away from the protective casing?	☑	☐	☐
	c	Is the well pad in complete contact with the protective casing?	☑	☐	☐
	d	Is the well pad in complete contact with the ground surface and stable? (not	☑	☐	☐
	e	Is the pad surface clean (not covered with sediment or debris)?	☑	☐	☐
4	Internal Casing				
	a	Does the cap prevent entry of foreign material into the well?	☑	☐	☐
	b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	☑	☐	☐
	c	Is the well properly vented for equilibration of air pressure?	☑	☐	☐
	d	Is the survey point clearly marked on the inner casing?	☑	☐	☐
	e	Is the depth of the well consistent with the original well log?	☑	☐	☐
	f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	☑	☐	☐
5	Sampling: Groundwater Wells Only:				
	a	Does well recharge adequately when purged?	☐	☐	☑
	b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	☐	☐	☑
	c	Does the well require redevelopment (low flow, turbid)?	☐	☐	☑
6	Based on your professional judgement, is the well construction / location:				
		appropriate to 1) achieve the objectives of the Groundwater Monitoring Program	☑	☐	☐
		and 2) comply with the applicable regulatory requirements?	☑	☐	☐
7	Corrective actions as needed, by date:				
8	Date by when corrective actions are needed:				

Groundwater Gauging Well Inspection Report

ARCADIS

Project Location:		AP-1			
Permit Number:					
Well ID:		PZ-10S			
Person Gauging:		Katie Pupkiewicz			
Date:		9/21/2020			
Time		11:24:00			
			Yes	No	N/A
1	Location Identification:				
	a	Is the well visible and accessible?	☑	☐	☐
	b	Is the well properly identified with the correct well ID?	☑	☐	☐
	c	Is the well in a high traffic area and does the well require protection from traffic?	☐	☑	☐
	d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	☑	☐	☐
2	Protective Casing:				
	a	Is the protective casing free from apparent damage and able to be secured?	☑	☐	☐
	b	Is the casing free of degradation or deterioration?	☑	☐	☐
	c	Does the casing have a functioning weep hole?	☑	☐	☐
	d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	☑	☐	☐
3	Surface Pad				
	a	Is the well pad in good condition (not cracked or broken)?	☑	☐	☐
	b	Is the well pad sloped away from the protective casing?	☑	☐	☐
	c	Is the well pad in complete contact with the protective casing?	☑	☐	☐
	d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	☑	☐	☐
	e	Is the pad surface clean (not covered with sediment or debris)?	☑	☐	☐
4	Internal Casing				
	a	Does the cap prevent entry of foreign material into the well?	☑	☐	☐
	b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	☑	☐	☐
	c	Is the well properly vented for equilibration of air pressure?	☑	☐	☐
	d	Is the survey point clearly marked on the inner casing?	☑	☐	☐
	e	Is the depth of the well consistent with the original well log?	☑	☐	☐
	f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	☑	☐	☐
5	Sampling: Groundwater Wells Only:				
	a	Does well recharge adequately when purged?	☐	☐	☑
	b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	☐	☐	☑
	c	Does the well require redevelopment (low flow, turbid)?	☐	☐	☑
6	Based on your professional judgement, is the well construction / location:				
		appropriate to 1) achieve the objectives of the Groundwater Monitoring Program	☑	☐	☐
		and 2) comply with the applicable regulatory requirements?	☑	☐	☐
7	Corrective actions as needed, by date:				
8	Date by when corrective actions are needed:				

Groundwater Gauging Well Inspection Report

Project Location:		AP-1			
Permit Number:					
Well ID:		YGWC-44			
Person Gauging:		Katie Pupkiewicz			
Date:		9/21/2020			
Time		10:57:00			
			Yes	No	N/A
1	Location Identification:				
	a	Is the well visible and accessible?	☑	☐	☐
	b	Is the well properly identified with the correct well ID?	☑	☐	☐
	c	Is the well in a high traffic area and does the well require protection from traffic?	☐	☑	☐
	d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	☑	☐	☐
2	Protective Casing:				
	a	Is the protective casing free from apparent damage and able to be secured?	☑	☐	☐
	b	Is the casing free of degradation or deterioration?	☑	☐	☐
	c	Does the casing have a functioning weep hole?	☑	☐	☐
	d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	☑	☐	☐
3	Surface Pad				
	a	Is the well pad in good condition (not cracked or broken)?	☑	☐	☐
	b	Is the well pad sloped away from the protective casing?	☑	☐	☐
	c	Is the well pad in complete contact with the protective casing?	☑	☐	☐
	d	Is the well pad in complete contact with the ground surface and stable? (not	☑	☐	☐
	e	Is the pad surface clean (not covered with sediment or debris)?	☑	☐	☐
4	Internal Casing				
	a	Does the cap prevent entry of foreign material into the well?	☑	☐	☐
	b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such	☑	☐	☐
	c	Is the well properly vented for equilibration of air pressure?	☑	☐	☐
	d	Is the survey point clearly marked on the inner casing?	☑	☐	☐
	e	Is the depth of the well consistent with the original well log?	☑	☐	☐
	f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	☑	☐	☐
5	Sampling: Groundwater Wells Only:				
	a	Does well recharge adequately when purged?	☐	☐	☑
	b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	☐	☐	☑
	c	Does the well require redevelopment (low flow, turbid)?	☐	☐	☑
6	Based on your professional judgement, is the well construction / location:				
		appropriate to 1) achieve the objectives of the Groundwater Monitoring Program	☑	☐	☐
		and 2) comply with the applicable regulatory requirements?	☑	☐	☐
7	Corrective actions as needed, by date:				
8	Date by when corrective actions are needed:				

Groundwater Gauging Well Inspection Report

ARCADIS

Project Location:		AP-1			
Permit Number:					
Well ID:		YGWC-45			
Person Gauging:		Katie Pupkiewicz			
Date:		9/21/2020			
Time		11:10:00			
			Yes	No	N/A
1	Location Identification:				
	a	Is the well visible and accessible?	☑	☐	☐
	b	Is the well properly identified with the correct well ID?	☑	☐	☐
	c	Is the well in a high traffic area and does the well require protection from traffic?	☐	☑	☐
	d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	☑	☐	☐
2	Protective Casing:				
	a	Is the protective casing free from apparent damage and able to be secured?	☑	☐	☐
	b	Is the casing free of degradation or deterioration?	☑	☐	☐
	c	Does the casing have a functioning weep hole?	☑	☐	☐
	d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	☑	☐	☐
3	Surface Pad				
	a	Is the well pad in good condition (not cracked or broken)?	☑	☐	☐
	b	Is the well pad sloped away from the protective casing?	☑	☐	☐
	c	Is the well pad in complete contact with the protective casing?	☑	☐	☐
	d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	☑	☐	☐
	e	Is the pad surface clean (not covered with sediment or debris)?	☑	☐	☐
4	Internal Casing				
	a	Does the cap prevent entry of foreign material into the well?	☑	☐	☐
	b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	☑	☐	☐
	c	Is the well properly vented for equilibration of air pressure?	☑	☐	☐
	d	Is the survey point clearly marked on the inner casing?	☑	☐	☐
	e	Is the depth of the well consistent with the original well log?	☑	☐	☐
	f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	☑	☐	☐
5	Sampling: Groundwater Wells Only:				
	a	Does well recharge adequately when purged?	☐	☐	☑
	b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	☐	☐	☑
	c	Does the well require redevelopment (low flow, turbid)?	☐	☐	☑
6	Based on your professional judgement, is the well construction / location:				
		appropriate to 1) achieve the objectives of the Groundwater Monitoring Program	☑	☐	☐
		and 2) comply with the applicable regulatory requirements?	☑	☐	☐
7	Corrective actions as needed, by date:				
8	Date by when corrective actions are needed:				

ARCADIS

Groundwater Gauging Well Inspection Report

Project Location:	AP-1
Permit Number:	
Well ID:	YGWC-46A
Person Gauging:	Katie Pupkiewicz
Date:	9/21/2020
Time	11:03:00

			Yes	No	N/A
1	Location Identification:				
	a	Is the well visible and accessible?	☑	☐	☐
	b	Is the well properly identified with the correct well ID?	☑	☐	☐
	c	Is the well in a high traffic area and does the well require protection from traffic?	☐	☑	☐
	d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	☑	☐	☐
2	Protective Casing:				
	a	Is the protective casing free from apparent damage and able to be secured?	☑	☐	☐
	b	Is the casing free of degradation or deterioration?	☑	☐	☐
	c	Does the casing have a functioning weep hole?	☑	☐	☐
	d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	☑	☐	☐
3	Surface Pad				
	a	Is the well pad in good condition (not cracked or broken)?	☑	☐	☐
	b	Is the well pad sloped away from the protective casing?	☑	☐	☐
	c	Is the well pad in complete contact with the protective casing?	☑	☐	☐
	d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	☑	☐	☐
	e	Is the pad surface clean (not covered with sediment or debris)?	☑	☐	☐
4	Internal Casing				
	a	Does the cap prevent entry of foreign material into the well?	☑	☐	☐
	b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	☑	☐	☐
	c	Is the well properly vented for equilibration of air pressure?	☑	☐	☐
	d	Is the survey point clearly marked on the inner casing?	☑	☐	☐
	e	Is the depth of the well consistent with the original well log?	☑	☐	☐
	f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	☑	☐	☐
5	Sampling: Groundwater Wells Only:				
	a	Does well recharge adequately when purged?	☐	☐	☑
	b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	☐	☐	☑
	c	Does the well require redevelopment (low flow, turbid)?	☐	☐	☑
6	Based on your professional judgement, is the well construction / location:				
		appropriate to 1) achieve the objectives of the Groundwater Monitoring Program	☑	☐	☐
		and 2) comply with the applicable regulatory requirements?	☑	☐	☐
7	Corrective actions as needed, by date:				
8	Date by when corrective actions are needed:				

Groundwater Gauging Well Inspection Report

Project Location:	AP-1
Permit Number:	
Well ID:	YGWA-47
Person Gauging:	Katie Pupkiewicz
Date:	9/21/2020
Time	10:48:00

			Yes	No	N/A
1	Location Identification:				
	a	Is the well visible and accessible?	☑	☐	☐
	b	Is the well properly identified with the correct well ID?	☑	☐	☐
	c	Is the well in a high traffic area and does the well require protection from traffic?	☐	☑	☐
	d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	☑	☐	☐
2	Protective Casing:				
	a	Is the protective casing free from apparent damage and able to be secured?	☑	☐	☐
	b	Is the casing free of degradation or deterioration?	☑	☐	☐
	c	Does the casing have a functioning weep hole?	☑	☐	☐
	d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	☑	☐	☐
3	Surface Pad				
	a	Is the well pad in good condition (not cracked or broken)?	☑	☐	☐
	b	Is the well pad sloped away from the protective casing?	☑	☐	☐
	c	Is the well pad in complete contact with the protective casing?	☑	☐	☐
	d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	☑	☐	☐
	e	Is the pad surface clean (not covered with sediment or debris)?	☑	☐	☐
4	Internal Casing				
	a	Does the cap prevent entry of foreign material into the well?	☑	☐	☐
	b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	☑	☐	☐
	c	Is the well properly vented for equilibration of air pressure?	☑	☐	☐
	d	Is the survey point clearly marked on the inner casing?	☑	☐	☐
	e	Is the depth of the well consistent with the original well log?	☑	☐	☐
	f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	☑	☐	☐
5	Sampling: Groundwater Wells Only:				
	a	Does well recharge adequately when purged?	☐	☐	☑
	b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	☐	☐	☑
	c	Does the well require redevelopment (low flow, turbid)?	☐	☐	☑
6	Based on your professional judgement, is the well construction / location:				
		appropriate to 1) achieve the objectives of the Groundwater Monitoring Program	☑	☐	☐
		and 2) comply with the applicable regulatory requirements?	☑	☐	☐
7	Corrective actions as needed, by date:				
8	Date by when corrective actions are needed:				

Groundwater Gauging Well Inspection Report

Project Location:		AP-1			
Permit Number:					
Well ID:		YGWC-52			
Person Gauging:		Katie Pupkiewicz			
Date:		9/21/2020			
Time		10:49:00			
			Yes	No	N/A
1	Location Identification:				
	a	Is the well visible and accessible?	☑	☐	☐
	b	Is the well properly identified with the correct well ID?	☑	☐	☐
	c	Is the well in a high traffic area and does the well require protection from traffic?	☐	☑	☐
	d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	☑	☐	☐
2	Protective Casing:				
	a	Is the protective casing free from apparent damage and able to be secured?	☑	☐	☐
	b	Is the casing free of degradation or deterioration?	☑	☐	☐
	c	Does the casing have a functioning weep hole?	☑	☐	☐
	d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	☑	☐	☐
3	Surface Pad				
	a	Is the well pad in good condition (not cracked or broken)?	☑	☐	☐
	b	Is the well pad sloped away from the protective casing?	☑	☐	☐
	c	Is the well pad in complete contact with the protective casing?	☑	☐	☐
	d	Is the well pad in complete contact with the ground surface and stable? (not	☑	☐	☐
	e	Is the pad surface clean (not covered with sediment or debris)?	☑	☐	☐
4	Internal Casing				
	a	Does the cap prevent entry of foreign material into the well?	☑	☐	☐
	b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	☑	☐	☐
	c	Is the well properly vented for equilibration of air pressure?	☑	☐	☐
	d	Is the survey point clearly marked on the inner casing?	☑	☐	☐
	e	Is the depth of the well consistent with the original well log?	☑	☐	☐
	f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	☑	☐	☐
5	Sampling: Groundwater Wells Only:				
	a	Does well recharge adequately when purged?	☐	☐	☑
	b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	☐	☐	☑
	c	Does the well require redevelopment (low flow, turbid)?	☐	☐	☑
6	Based on your professional judgement, is the well construction / location:				
		appropriate to 1) achieve the objectives of the Groundwater Monitoring Program	☑	☐	☐
		and 2) comply with the applicable regulatory requirements?	☑	☐	☐
7	Corrective actions as needed, by date:				
8	Date by when corrective actions are needed:				

Groundwater Gauging Well Inspection

ARCADIS

Project Location:		AP-1			
Permit Number:					
Well ID:		PZ-53			
Person Gauging:		Katie Pupkiewicz			
Date:		9/21/2020			
Time		11:09:00			
			Yes	No	N/A
1	Location Identification:				
	a	Is the well visible and accessible?	☑	☐	☐
	b	Is the well properly identified with the correct well ID?	☑	☐	☐
	c	Is the well in a high traffic area and does the well require protection from traffic?	☐	☑	☐
	d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	☑	☐	☐
2	Protective Casing:				
	a	Is the protective casing free from apparent damage and able to be secured?	☑	☐	☐
	b	Is the casing free of degradation or deterioration?	☑	☐	☐
	c	Does the casing have a functioning weep hole?	☑	☐	☐
	d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	☑	☐	☐
3	Surface Pad				
	a	Is the well pad in good condition (not cracked or broken)?	☑	☐	☐
	b	Is the well pad sloped away from the protective casing?	☑	☐	☐
	c	Is the well pad in complete contact with the protective casing?	☑	☐	☐
	d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	☑	☐	☐
	e	Is the pad surface clean (not covered with sediment or debris)?	☑	☐	☐
4	Internal Casing				
	a	Does the cap prevent entry of foreign material into the well?	☑	☐	☐
	b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	☑	☐	☐
	c	Is the well properly vented for equilibration of air pressure?	☑	☐	☐
	d	Is the survey point clearly marked on the inner casing?	☑	☐	☐
	e	Is the depth of the well consistent with the original well log?	☑	☐	☐
	f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	☑	☐	☐
5	Sampling: Groundwater Wells Only:				
	a	Does well recharge adequately when purged?	☐	☐	☑
	b	If dedicated sampling equipment installed, is it in good condition and specified in the approved	☐	☐	☑
	c	Does the well require redevelopment (low flow, turbid)?	☐	☐	☑
6	Based on your professional judgement, is the well construction / location:				
		appropriate to 1) achieve the objectives of the Groundwater Monitoring Program	☑	☐	☐
		and 2) comply with the applicable regulatory requirements?	☑	☐	☐
7	Corrective actions as needed, by date:				
8	Date by when corrective actions are needed:				

September 2020 Daily Calibration Log

Project Plant Yates

Field Staff: Becky Steever/Jake Swanson/ Michael Guy/Katie Pupkiewicz/Peter Argyrakis

Instrument Calibration

Date: 9/22/20 Time: 1030

Parameter	Units	Standard	SmarTROLL SN 611846	SmarTROLL SN 518534	SmarTROLL SN 513586	SmarTROLL SN 689918
DO	% saturation	100	100	100	100	100
Conductivity	us/cm	8000	8000	8000	8000	8000
pH	S.U.	4.00	--	--	--	--
pH	S.U.	6.98	7.02	7.02	7.02	7.02
pH	S.U.	10.00	--	--	--	--
ORP	mV	232.0	232.1	233.2	233.1	232.8

Turbidity Standard	Units	LaMotte SN 5961-3815	LaMotte SN 1164-2911	LaMotte SN 6012-4015	Geotech SN 18081847
0.0	NTU	0.00	0.00	0.00	0.00
10.0	NTU	10.00	10.00	10.00	10.00

: 9/23/20 Time: 7:00

Parameter	Units	Standard	SmarTROLL SN 611846	SmarTROLL SN 518534	SmarTROLL SN 513586	SmarTROLL SN 689918
DO	% saturation	100	100	100	100	100
Conductivity	us/cm	8000	8000	8000	8000	8000
pH	S.U.	4.00	--	--	--	--
pH	S.U.	6.98	7.02	7.02	7.02	7.02
pH	S.U.	10.00	--	--	--	--
ORP	mV	233.0	233.2	229.9	234.2	232.80

Turbidity Standard	Units	LaMotte SN 5961-3815	LaMotte SN 1164-2911	LaMotte SN 6012-4015	Geotech SN 18081847
0.0	NTU	0.00	0.00	0.00	0.00
10.0	NTU	10.00	10.00	10.00	10.00

September 2020 Daily Calibration Log

Project Plant Yates

Field Staff: Becky Steever/Jake Swanson/ Michael Guy/Katie Pupkiewicz/Peter Argyrakis

Instrument Calibration

Date: 9/24/20 Time: 7:00

Parameter	Units	Standard	SmarTROLL SN 611846	SmarTROLL SN 518534	SmarTROLL SN 513586	SmarTROLL SN 689918
DO	% saturation	100	100	99.9	99.9	100
Conductivity	us/cm	8000	8000	8000	8000	8000
pH	S.U.	4.00	--	--	--	--
pH	S.U.	7.00	7.02	7.00	7.00	7.00
pH	S.U.	10.00	--	--	--	--
ORP	mV	229	232.1	228.3	230.5	228.4

Turbidity Standard	Units	LaMotte SN 5961-3815	LaMotte SN 1164-2911	LaMotte SN 6012-4015	Geotech SN 18081847
0.0	NTU	0.00	0.00	0.00	0.00
10.0	NTU	10.00	10.00	10.00	10.00

Date: 9/25/20 Time: 7:00

Parameter	Units	Standard	SmarTROLL SN 611846	SmarTROLL SN 518534	SmarTROLL SN 513586	SmarTROLL SN 689918
DO	% saturation	100	100	NA	100	NA
Conductivity	us/cm	8000	8000	NA	8000	NA
pH	S.U.	4.00	--	NA	--	NA
pH	S.U.	7.00	7.00	NA	7.00	NA
pH	S.U.	10.00	--	NA	--	NA
ORP	mV	228	226.0	NA	229.1	NA

Turbidity Standard	Units	LaMotte SN 5961-3815	LaMotte SN 1164-2911	LaMotte SN 6012-4015	Geotech SN 18081847
0.0	NTU	0.00	NA	0.00	NA
10.0	NTU	10.00	NA	10.00	NA

Notes:

DO - Dissolved Oxygen; us/cm - microsiemens/centimeter; ORP - oxidation-reduction potential; mV - millivolts; NTU - Nphelometric Turbidity Units; NC - Not calibrated

Quick Cal solution standard is dependant on temperature and will fluctuate

NA = not used that day

October 2020

Baseline Event (YGWC-46A, YGWC-52)

Groundwater Sampling Form

ARCADIS Design & Consultancy for natural and built assets

Project Number	30052922	**Well ID**	YGWC-46A			**Date**	10/07/2020
Project Location	AP-1		**Weather(°F)**	Sunny, warm °F, , winds at mph.			
Measuring Pt. Description	Top of Inner Casing	**Screen Setting (ft-bmp)**	60.79-70.79	**Casing Diameter (in)**	2	**Well Casing Material**	PVC
Static Water Level (ft-bmp)	38.28	**Total Depth (ft-bmp)**	79.22	**Water Column(ft)**	40.94	**Gallons in Well**	6.65
MP Elevation	733.04	**Pump Intake (ft-bmp)**	66	**Purge Method**	Low-Flow	**Sample Method**	Low-Flow
Sample Time		**Well Volumes Purged**	0.13	**Sample ID**	YGWC-46A	**Sampled by**	Becky Steever
Purge Start	11:50	**Gallons Purged**	0.89	**Replicate/ Code No.**	NA	**Color**	Clear
Purge End	12:40						

Time	Total Elapsed Minutes	Rate (mL/min)	Depth to Water (ft)	pH (standard units)	Specific Conductivity (µS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)
11:50:06	00:00	150	38.28	6.0	985.82	0.5	8.5	22.2	169.8
11:55:06	05:00	150	40.38	5.3	1007.96	0.4	6.8	21.9	25.9
12:00:06	10:00	125	40.62	7.0	1137.64	1.4	0.5	22.0	-70.2
12:05:06	15:00	125	40.69	7.0	1142.10	9.5	0.3	22.4	-84.3
12:10:06	20:00	125	40.8	7.0	1146.86	18.2	0.3	22.5	-94.4
12:15:06	25:00	125	40.84	7.1	1150.66	13.3	0.2	22.6	-98.4

Constituent Sampled	Container	Number	Preservative
Metals	250 mL Plastic	1	HNO3
RAD Chem	1L Plastic	2	HNO3
Anions	250 mL Plastic	1	None
TDS	500 mL Plastic	1	None

Comments: Turbidity 0.44 (turbidity meter)

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot 1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Well Information

Well Location:
Condition of Well:
Well Completion: NA
Well Locked at Arrival:
Well Locked at Departure:
Key Number To Well: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute
mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
µS/cm = microSiemens per centimete

Groundwater Sampling Form

ARCADIS Design & Consultancy for natural and built assets

Project Number	30052922	**Well ID**	YGWC-52			**Date**	10/07/2020
Project Location	AP-1		**Weather(°F)**	32.0 degrees F and Clear. The wind is blowing undefined at 0.0 mph.			
Measuring Pt. Description	Top of Inner Casing	**Screen Setting (ft-bmp)**	69.22-79.22	**Casing Diameter (in)**	2	**Well Casing Material**	PVC
Static Water Level (ft-bmp)	37.18	**Total Depth (ft-bmp)**	70.79	**Water Column(ft)**	33.61	**Gallons in Well**	5.46
MP Elevation	755.86	**Pump Intake (ft-bmp)**	74	**Purge Method**	Low-Flow	**Sample Method**	Low-Flow
Sample Time	10:55	**Well Volumes Purged**	0.15	**Sample ID**	YGWC-52	**Sampled by**	Becky Steever
Purge Start	10:32	**Gallons Purged**	0.79	**Replicate/ Code No.**	NA	**Color**	Clear
Purge End	11:15						

Time	Total Elapsed Minutes	Rate (mL/min)	Depth to Water (ft)	pH (standard units)	Specific Conductivity (µS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)
10:32:39	00:00	150	37.81	7.1	5.18	0.1	8.5	22.7	218.9
10:37:39	05:00	150	37.8	7.1	4.55	0.1	8.4	23.1	216.1
10:42:39	10:00	150	37.81	5.9	487.54	0.2	2.2	21.2	220.4
10:47:39	15:00	150	37.81	5.9	484.51	0.3	1.6	21.5	210.7
10:52:39	20:00	150	37.82	5.9	487.72	0.1	1.4	21.8	200.6

Constituent Sampled	Container	Number	Preservative
Metals	250 mL Plastic	1	HNO3
RAD Chem	1L Plastic	2	HNO3
Anions	250 mL Plastic	1	None
TDS	500 mL Plastic	1	None

Comments: Calibrate smart troll at well before purging

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot 1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Well Information

Well Location:
Condition of Well:
Well Completion: NA
Well Locked at Arrival:
Well Locked at Departure:
Key Number To Well: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute
mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
µS/cm = microSiemens per centimete

October 2020 Daily Calibration Log

Project Plant Yates
Field Staff: Becky Steever

Instrument Calibration
Date: 10/07/20 Time: 11:00

Parameter	Units	Standard	SmarTROLL SN 689918
DO	% saturation	100	100
Conductivity	us/cm	8000	8000
pH	S.U.	4.00	--
pH	S.U.	7.00	7.00
pH	S.U.	10.00	--
ORP	mV	227.3	227.3

Turbidity Standard	Units	LaMotte SN 8140-2616
0.0	NTU	0.00
10.0	NTU	10.00

Notes:
DO - Dissolved Oxygen; us/cm - microsiemens/centimeter; ORP - oxidation-reduction potential; mV -millivolts; NTU - Nphelometric Turbidity Units;

November 2020

Baseline Event (YGWC-46A, YGWC-52)

Groundwater Sampling Form

ARCADIS Design & Consultancy for natural and built assets

Project Number	30052922	**Well ID**	YGWC-46A			**Date**	11/12/2020
Project Location	AP-1		**Weather(°F)**	32.0 degrees F and Cloudy. The wind is blowing undefined at 0.0 mph.			
Measuring Pt. Description	Top of Inner Casing	**Screen Setting (ft-bmp)**	60.79-70.79	**Casing Diameter (in)**	2	**Well Casing Material**	PVC
Static Water Level (ft-bmp)	37.74	**Total Depth (ft-bmp)**	79.22	**Water Column(ft)**	41.48	**Gallons in Well**	6.74
MP Elevation	733.04	**Pump Intake (ft-bmp)**	66	**Purge Method**	Low-Flow	**Sample Method**	Low-Flow
Sample Time	10:05	**Well Volumes Purged**	0.19	**Sample ID**	YGWC-46A	**Sampled by**	Jake Swanson
Purge Start	09:28	**Gallons Purged**	1.25	**Replicate/ Code No.**	NA	**Color**	Clear
Purge End	10:00						

Time	Total Elapsed Minutes	Rate (mL/min)	Depth to Water (ft)	pH (standard units)	Specific Conductivity (µS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)
09:28:09	00:00	150	37.74	6.9	1153.83	0.0	4.2	20.5	178.7
09:33:09	05:00	150	39.41	7.1	1124.04	0.4	2.3	19.8	-87.4
09:38:09	10:00	150	39.41	7.1	1124.19	0.8	0.9	20.3	-97.1
09:38:42	10:33	150	39.91	7.1	1118.81	1.3	0.8	20.2	-98.2
09:43:42	15:33	150	40.28	7.1	1128.05	34.5	0.4	19.8	-103.3
09:49:38	21:29	150	40.51	7.1	1133.17	0.0	0.8	20.0	-98
09:54:38	26:29	150	40.66	7.0	1139.69	0.0	0.4	19.9	-95.4
09:59:38	31:29	150	40.62	7.0	1140.78	0.4	0.3	19.8	-92.2

Constituent Sampled	Container	Number	Preservative
Metals	250 mL Plastic	1	HNO3
RAD Chem	1L Plastic	2	HNO3
Anions	250 mL Plastic	1	None
TDS	500 mL Plastic	1	None

Comments: Final turbidity 2.11

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot 1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Well Information

Well Location:
Condition of Well:
Well Completion: NA
Well Locked at Arrival:
Well Locked at Departure:
Key Number To Well: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute
mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
µS/cm = microSiemens per centimete

Groundwater Sampling Form

ARCADIS Design & Consultancy for natural and built assets

Project Number	30052922	**Well ID**	YGWC-52			**Date**	11/12/2020
Project Location	AP-1		**Weather(°F)**	70 °F, Overcast, winds at 0 mph.			
Measuring Pt. Description	Top of Inner Casing	**Screen Setting (ft-bmp)**	69.22-79.22	**Casing Diameter (in)**	2	**Well Casing Material**	PVC
Static Water Level (ft-bmp)	37.68	**Total Depth (ft-bmp)**	70.79	**Water Column(ft)**	33.11	**Gallons in Well**	5.38
MP Elevation	755.86	**Pump Intake (ft-bmp)**	65	**Purge Method**	Low-Flow	**Sample Method**	Low-Flow
Sample Time	11:40	**Well Volumes Purged**	0.15	**Sample ID**	YGWC-52	**Sampled by**	Jake Swanson
Purge Start	11:15	**Gallons Purged**	0.79	**Replicate/ Code No.**	NA	**Color**	Clear
Purge End	11:35						

Time	Total Elapsed Minutes	Rate (mL/min)	Depth to Water (ft)	pH (standard units)	Specific Conductivity (µS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temperature °C	Redox (mV)
11:15:17	00:00	150	37.68	6.0	488.56	1.0	3.5	20.5	104.1
11:20:17	05:00	150	37.89	5.9	478.42	0.7	2.1	19.8	127.1
11:25:17	10:00	150	38.02	5.9	476.85	0.0	1.6	19.6	140.0
11:30:17	15:00	150	38.13	5.9	477.16	0.0	1.4	19.6	148.3
11:35:17	20:00	150	38.15	5.9	476.52	0.0	1.4	19.3	157.7

Constituent Sampled	Container	Number	Preservative
Metals	1L Plastic	2	HNO3
Dissolved Metals	250 mL Plastic	1	HNO3
RAD Chem	500 mL Plastic	1	HNO3
Chloride	250 mL Plastic	1	None

Comments: Last turbidity: 0.32

Well Casing Volume Conversion

Well diameter (inches) = gallons per foot 1 = 0.04 1.5 = 0.09 2.5 = 0.26 3.5 = 0.50 6 = 1.47
1.25 = 0.06 2 = 0.16 3 = 0.37 4 = 0.65

Well Information

Well Location:
Condition of Well:
Well Completion: NA
Well Locked at Arrival:
Well Locked at Departure:
Key Number To Well: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute
mS/cm = milliSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
µS/cm = microSiemens per centimete

November 2020 Daily Calibration Log

Project Plant Yates
Field Staff: Becky Steever

Instrument Calibration
Date: 11/12/20 Time: 08:30

Parameter	Units	Standard	SmarTROLL SN 514255
DO	% saturation	100	100
Conductivity	us/cm	8000	8000
pH	S.U.	4.00	--
pH	S.U.	7.00	7.00
pH	S.U.	10.00	--
ORP	mV	217.3	217.3

Turbidity Standard	Units		LaMotte SN 8140-3241
0.0	NTU		0.00
10.0	NTU		10.00

Notes:
DO - Dissolved Oxygen; us/cm - microsiemens/centimeter; ORP - oxidation-reduction potential; mV - millivolts; NTU - Nphelometric Turbidity Units;

APPENDIX C

Historical Groundwater Analytical Data

Appendix C
Historical Groundwater Analytical Data
2020 Semiannual Groundwater Monitoring and Corrective Action Report
Georgia Power Company
Plant Yates AP-1

Analyte		Units	YAMW-6	YAMW-7	YGWA-47	YGWA-47	YGWA-47	YGWA-47	YGWA-47	YGWA-47	YGWA-47
			YAMW-6 (011520)	YAMW-7 (011520)	YGWA-47 (083016)	YGWA-47 (111416)	YGWA-47 (121516)	YGWA-47 (022417)	YGWA-47 (050817)	YGWA-47 (071117)	YGWA-47 (101017)
			1/15/2020	1/15/2020	8/30/2016	11/14/2016	12/15/2016	2/24/2017	5/8/2017	7/11/2017	10/10/2017
Appendix III	Boron	mg/l	**0.41**	**3.2**	**0.0166 J**	**0.0166 J**	NA	**0.0145 J**	**0.0141 J**	**0.0131 J**	**0.0124 J**
	Calcium	mg/l	NA	NA	**20.9**	**18.6**	NA	**16.1**	**14.6**	**14.3**	**12.1**
	Chloride	mg/l	NA	NA	**5.2**	**6.4**	NA	**5.5**	**5.8**	**5.8**	**5.9**
	Fluoride	mg/l	NA	NA	**0.09 J**	**0.18 J**	NA	**0.05 J**	**0.03 J**	**0.07 J**	< 0.3
	pH	SU	7.17	8.22	5.75	5.59	NA	5.49	5.58	5.58	5.49
	Sulfate	mg/l	NA	NA	**160**	**150**	NA	**120**	**120**	**110**	**93**
	Total Dissolved Solids	mg/l	NA	NA	**319**	**280**	NA	**162**	**194**	**193**	**175**
Appendix IV	Antimony	mg/l	NA	NA	**0.0028 J**	< 0.003	NA	< 0.003	**0.0004 J**	**0.0006 J**	< 0.003
	Arsenic	mg/l	NA	NA	< 0.005	< 0.005	NA	< 0.005	< 0.005	< 0.005	**0.0007 J**
	Barium	mg/l	NA	NA	**0.0413**	**0.0383**	NA	**0.0351**	**0.0251**	**0.0233**	**0.0207**
	Beryllium	mg/l	NA	NA	< 0.003	< 0.003	NA	< 0.003	**0.00007 J**	< 0.003	< 0.003
	Cadmium	mg/l	NA	NA	**0.0001 J**	**0.0001 J**	NA	**0.00009 J**	**0.0001 J**	< 0.001	< 0.001
	Chromium	mg/l	NA	NA	< 0.01	**0.0093 J**	NA	< 0.01	< 0.01	< 0.01	< 0.01
	Cobalt	mg/l	**0.00052 J**	**0.00048 J**	**0.0073 J**	**0.0115**	NA	**0.0106**	**0.0099 J**	**0.0096 J**	**0.0036 J**
	Lead	mg/l	NA	NA	< 0.005	< 0.005	NA	< 0.005	< 0.005	< 0.005	< 0.005
	Lithium	mg/l	NA	NA	**0.0061 J**	**0.0064 J**	NA	**0.0049 J**	**0.0053 J**	**0.0051 J**	**0.0043 J**
	Mercury	mg/l	NA	NA	< 0.0005	< 0.0005	NA	< 0.0005	< 0.0005	< 0.0005	< 0.0005
	Molybdenum	mg/l	NA	NA	< 0.01	< 0.01	NA	< 0.01	< 0.01	< 0.01	< 0.01
	Combined Radium - 226/228	pci/l	NA	NA	**1.09**	NA	**1 U**	**0.504 U**	**0.455 U**	**0.471 U**	**0.649 U**
	Selenium	mg/l	NA	NA	**0.0017 J**	< 0.01	NA	**0.0011 J**	< 0.01	< 0.01	< 0.01
	Thallium	mg/l	NA	NA	< 0.001	< 0.001	NA	< 0.001	< 0.001	< 0.001	< 0.001

Analyte		Units	YGWA-47	YGWA-47	YGWA-47	YGWA-47	YGWA-47	YGWA-47	YGWA-47	YGWA-47	YGWC-44
			YGWA-47 (040218)	YGWA-47 (091918)	YGWA-47 (032719)	YGWA-47 (082019)	YGWA-47 (100819)	YGWA-47 (031720)	YGWA-47 (082720)	YGWA-47 (092220)	YGWC-44 (083116)
			4/2/2018	9/19/2018	3/27/2019	8/20/2019	10/8/2019	3/17/2020	8/27/2020	9/22/2020	8/31/2016
Appendix III	Boron	mg/l	**0.013 J**	**0.012 J**	**0.013 J**	NA	**0.012 J**	**0.023 J**	NA	**0.0076 J**	**0.541**
	Calcium	mg/l	< 25	**11.1 J**	**10.8 J**	NA	**9.7**	**14.8**	NA	**10.1**	**27.3**
	Chloride	mg/l	**4.8**	**4**	**4.3**	NA	**4.4**	**4.1**	NA	**4.2**	**13**
	Fluoride	mg/l	< 0.3	< 0.3	**0.081 J**	< 0.3	**0.034 J**	< 0.050	< 0.050	< 0.050	< 0.3
	pH	SU	6.3	5.48	5.83	5.58	5.59	5.57	**4.88**	**5.46**	6.01
	Sulfate	mg/l	**88.8**	**75**	**65.9**	NA	**52.3**	**71.6**	NA	**51.5**	**150**
	Total Dissolved Solids	mg/l	**192**	**186**	**170**	NA	**172**	**165**	NA	**141**	**332**
Appendix IV	Antimony	mg/l	< 0.003	< 0.003	NA	< 0.003	NA	NA	**0.00048 J**	< 0.00028	< 0.003
	Arsenic	mg/l	< 0.005	**0.00072 J**	NA	< 0.005	< 0.005	< 0.00035	< 0.00078	< 0.00078	< 0.005
	Barium	mg/l	**0.022**	**0.023**	NA	**0.024**	**0.025**	**0.035**	**0.027**	**0.026**	**0.126**
	Beryllium	mg/l	< 0.003	**0.000057 J**	NA	< 0.003	NA	NA	**0.000047 J**	< 0.000046	< 0.003
	Cadmium	mg/l	< 0.001	< 0.001	NA	< 0.0025	< 0.0025	< 0.00011	< 0.00012	NA	< 0.001
	Chromium	mg/l	< 0.01	< 0.01	NA	< 0.01	NA	NA	< 0.00055	< 0.00055	< 0.01
	Cobalt	mg/l	< 0.01	**0.0036 J**	NA	**0.00092 J**	**0.0014 J**	**0.0017 J**	**0.0011 J**	**0.00097 J**	**0.0119**
	Lead	mg/l	< 0.005	< 0.005	NA	< 0.005	NA	NA	< 0.000036	< 0.000036	< 0.005
	Lithium	mg/l	**0.0045 J**	**0.0043 J**	NA	**0.0036 J**	**0.0036 J**	**0.0046 J**	**0.0039 J**	**0.0036 J**	**0.0115 J**
	Mercury	mg/l	< 0.0005	**0.000053 J**	NA	< 0.0005	NA	NA	< 0.000078	NA	< 0.0005
	Molybdenum	mg/l	< 0.01	< 0.01	NA	< 0.01	< 0.01	< 0.00095	< 0.00069	< 0.00069	< 0.01
	Combined Radium - 226/228	pci/l	**0.512 U**	**0.789 U**	NA	**2.44**	**1.72**	**1.22 U**	**1.26 U**	**1.06 U**	**2.15**
	Selenium	mg/l	< 0.01	< 0.01	NA	< 0.01	NA	NA	< 0.0016	NA	< 0.01
	Thallium	mg/l	< 0.001	< 0.001	NA	**0.000058 J**	**0.000084 J**	< 0.000052	< 0.00014	NA	< 0.001

Analyte		Units	YGWC-44	YGWC-44	YGWC-44	YGWC-44	YGWC-44	YGWC-44	YGWC-44	YGWC-44	YGWC-44
			YGWC-44 (111516)	YGWC-44 (022817)	YGWC-44 (050817)	YGWC-44 (071317)	YGWC-44 (101017)	YGWC-44 (040418)	YGWC-44 (091918)	YGWC-44 (032719)	YGWC-44 (082019)
			11/15/2016	2/28/2017	5/8/2017	7/13/2017	10/10/2017	4/4/2018	9/19/2018	3/27/2019	8/20/2019
Appendix III	Boron	mg/l	**0.706**	**0.623**	**0.69**	**0.649**	**0.603**	**0.66**	**0.66**	**0.57**	NA
	Calcium	mg/l	**27.8**	**26.4**	**29.9**	**30.2**	**27.2**	**30.1**	**29.2**	**27.9**	NA
	Chloride	mg/l	**14**	**12**	**13**	**13**	**14**	**13.4**	**14.2**	**14**	NA
	Fluoride	mg/l	**0.12 J**	**0.07 J**	**0.04 J**	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
	pH	SU	5.91	5.85	5.91	5.8	5.76	5.77	5.77	6.1	5.78
	Sulfate	mg/l	**150**	**130**	**150**	**150**	**140**	**137**	**137**	**146**	NA
	Total Dissolved Solids	mg/l	**356**	**483**	**296**	**345**	**311**	**313**	**326**	**302**	NA
Appendix IV	Antimony	mg/l	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	NA	< 0.003
	Arsenic	mg/l	< 0.005	**0.0005 J**	**0.0006 J**	< 0.005	**0.0007 J**	< 0.005	**0.00086 J**	NA	**0.00097 J**
	Barium	mg/l	**0.115**	**0.121**	**0.125**	**0.106**	**0.112**	**0.12**	**0.11**	NA	**0.1**
	Beryllium	mg/l	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003	NA	< 0.003
	Cadmium	mg/l	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	NA	< 0.0025
	Chromium	mg/l	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	NA	< 0.01
	Cobalt	mg/l	**0.0033 J**	**0.0017 J**	**0.0018 J**	**0.0022 J**	**0.0017 J**	< 0.01	**0.0025 J**	NA	**0.002 J**
	Lead	mg/l	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	NA	< 0.005
	Lithium	mg/l	**0.0148 J**	**0.0124 J**	**0.0132 J**	**0.0124 J**	**0.0123 J**	**0.014 J**	**0.013 J**	NA	**0.013 J**
	Mercury	mg/l	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	**0.00006 J**	NA	< 0.0005
	Molybdenum	mg/l	< 0.01	**0.0005 J**	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	NA	< 0.01
	Combined Radium - 226/228	pci/l	**0.676 U**	**0.241 U**	**0.508 U**	**0.77 U**	**1.43**	**0.325 U**	**0.386 U**	NA	**1.71**
	Selenium	mg/l	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	NA	< 0.01
	Thallium	mg/l	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	NA	< 0.001

Analyte		Units	YGWC-44	YGWC-44	YGWC-44	YGWC-44	YGWC-45	YGWC-45	YGWC-45	YGWC-45	YGWC-45
			YGWC-44 (100819)	YGWC-44 (031720)	YGWC-44 (082720)	YGWC-44 (092220)	YGWC-45 (083116)	YGWC-45 (111416)	YGWC-45 (022717)	YGWC-45 (050917)	YGWC-45 (071317)
			10/8/2019	3/17/2020	8/27/2020	9/22/2020	8/31/2016	11/14/2016	2/27/2017	5/9/2017	7/13/2017
Appendix III	Boron	mg/l	**0.58**	**0.61**	NA	**0.59**	**0.308**	**0.368**	**0.321**	**0.338**	**0.34**
	Calcium	mg/l	**28.1**	**31.9**	NA	**30.4**	**46.7**	**50.6**	**49.4**	**56**	**54.8**
	Chloride	mg/l	**14.8**	**14.0**	NA	**14.4**	**5.8**	**5.8**	**5**	**4.6**	**4.7**
	Fluoride	mg/l	< 0.3	< 0.050	< 0.050	< 0.050	**0.11 J**	**0.71**	**0.22 J**	**0.2 J**	**0.11 J**
	pH	SU	5.84	5.90	**5.75**	**5.53**	7.15	6.96	6.79	6.9	6.77
	Sulfate	mg/l	**142**	**121**	NA	**130**	**190**	**200**	**190**	**190**	**180**
	Total Dissolved Solids	mg/l	**324**	**283**	NA	**294**	**402**	**445**	**346**	**388**	**433**
Appendix IV	Antimony	mg/l	NA	NA	< 0.00028	< 0.00028	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003
	Arsenic	mg/l	< 0.005	< 0.00035	< 0.00078	< 0.00078	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	Barium	mg/l	**0.098**	**0.099**	**0.086**	**0.096**	**0.0754**	**0.0701**	**0.0834**	**0.0779**	**0.0719**
	Beryllium	mg/l	NA	NA	< 0.000046	< 0.000046	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003
	Cadmium	mg/l	< 0.0025	< 0.00011	< 0.00012	NA	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	Chromium	mg/l	NA	NA	< 0.00055	< 0.00055	< 0.01	**0.0061 J**	< 0.01	< 0.01	**0.0006 J**
	Cobalt	mg/l	**0.0017 J**	**0.0040 J**	**0.0030 J**	**0.0065**	**0.0009 J**	**0.0009 J**	**0.001 J**	**0.0008 J**	**0.0009 J**
	Lead	mg/l	NA	NA	< 0.000036	< 0.000036	< 0.005	< 0.005	< 0.005	**0.0001 J**	< 0.005
	Lithium	mg/l	**0.012 J**	**0.013 J**	**0.013 J**	**0.013 J**	**0.0147 J**	**0.0175 J**	**0.0135 J**	**0.0136 J**	**0.0129 J**
	Mercury	mg/l	NA	NA	< 0.000078	NA	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
	Molybdenum	mg/l	< 0.01	< 0.00095	< 0.00069	< 0.00069	**0.0024 J**	< 0.01	**0.0018 J**	**0.0015 J**	**0.0015 J**
	Combined Radium - 226/228	pci/l	**0.769 U**	**1.37**	**0.0859 U**	**0.327 U**	**1.65**	**0.981 U**	**0.528 U**	**1.4**	**0.611 U**
	Selenium	mg/l	NA	NA	< 0.0016	NA	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
	Thallium	mg/l	< 0.001	**0.000080 J**	< 0.00014	NA	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001

Analyte		Units	YGWC-45	YGWC-45	YGWC-45	YGWC-45	YGWC-45	YGWC-45	YGWC-45	YGWC-45	YGWC-45
			YGWC-45 (101017)	YGWC-45 (040318)	YGWC-45 (091918)	YGWC-45 (032719)	YGWC-45 (082019)	YGWC-45 (100919)	YGWC-45 (031720)	YGWC-45 (082820)	YGWC-45 (092320)
			10/10/2017	4/3/2018	9/19/2018	3/27/2019	8/20/2019	10/9/2019	3/17/2020	8/28/2020	9/23/2020
Appendix III	Boron	mg/l	**0.319**	**0.35**	**0.35**	**0.33**	NA	**0.35**	**0.37**	NA	**0.32**
	Calcium	mg/l	**52.8**	**50.6**	**50.5**	**48.8**	NA	**47.9**	**54.8**	NA	**50.0**
	Chloride	mg/l	**4.5**	**4.6**	**4.7**	**4.6**	NA	**5.1**	**4.6**	NA	**4.9**
	Fluoride	mg/l	**0.39**	< 0.3	< 0.3	**0.18 J**	< 0.3	< 0.3	**0.076 J**	**0.070 J**	**0.082 J**
	pH	SU	6.9	6.44	6.47	7.18	6.48	6.55	6.69	**6.84**	**6.57**
	Sulfate	mg/l	**180**	**183**	**192**	**188**	NA	**183**	**161**	NA	**170**
	Total Dissolved Solids	mg/l	**396**	**418**	**413**	**383**	NA	**432**	**391**	NA	**404**
Appendix IV	Antimony	mg/l	< 0.003	< 0.003	< 0.003	NA	< 0.003	NA	NA	**0.0017 J**	< 0.00028
	Arsenic	mg/l	**0.0006 J**	**0.00061 J**	**0.00072 J**	NA	**0.00078 J**	< 0.005	< 0.00035	< 0.00078	< 0.00078
	Barium	mg/l	**0.0708**	**0.068**	**0.064**	NA	**0.057**	**0.058**	**0.061**	**0.053**	**0.052**
	Beryllium	mg/l	< 0.003	< 0.003	< 0.003	NA	< 0.003	NA	NA	< 0.000046	< 0.000046
	Cadmium	mg/l	< 0.001	< 0.001	< 0.001	NA	< 0.0025	< 0.0025	< 0.00011	< 0.00012	NA
	Chromium	mg/l	< 0.01	< 0.01	< 0.01	NA	< 0.01	NA	NA	< 0.00055	**0.00058 J**
	Cobalt	mg/l	**0.0008 J**	< 0.01	**0.00081 J**	NA	**0.00071 J**	**0.0007 J**	**0.00081 J**	**0.00055 J**	**0.00053 J**
	Lead	mg/l	< 0.005	< 0.005	< 0.005	NA	< 0.005	NA	NA	< 0.000036	< 0.000036
	Lithium	mg/l	**0.015 J**	**0.014 J**	**0.012 J**	NA	**0.012 J**	**0.012 J**	**0.014 J**	**0.012 J**	**0.012 J**
	Mercury	mg/l	< 0.0005	< 0.0005	**0.000071 J**	NA	< 0.0005	NA	NA	< 0.000078	NA
	Molybdenum	mg/l	**0.0015 J**	< 0.01	< 0.01	NA	**0.0011 J**	**0.0012 J**	**0.0016 J**	**0.0013 J**	**0.0011 J**
	Combined Radium - 226/228	pci/l	**1.47**	**1.53**	**0.839 U**	NA	**2.23**	**1.61**	**1.44**	**0.983 U**	**0.746 U**
	Selenium	mg/l	< 0.01	< 0.01	< 0.01	NA	< 0.01	NA	NA	< 0.0016	NA
	Thallium	mg/l	< 0.001	< 0.001	< 0.001	NA	< 0.001	< 0.001	< 0.000052	< 0.00014	NA

Analyte		Units	YGWC-46	YGWC-46	YGWC-46	YGWC-46	YGWC-46	YGWC-46	YGWC-46	YGWC-46
			YGWC-46 (090116)	YGWC-46 (111616)	YGWC-46 (112816)	YGWC-46 (022717)	YGWC-46 (050817)	YGWC-46 (071317)	YGWC-46 (101117	YGWC-46 (040418)
			9/1/2016	11/16/2016	11/28/2016	2/27/2017	5/8/2017	7/13/2017	10/11/2017	4/4/2018
Appendix III	Boron	mg/l	**2.12**	**2.03**	NA	**1.29**	**1.71**	**1.62**	**1.17**	**1.2**
	Calcium	mg/l	**96.8**	**107**	NA	**104**	**103**	**83.7**	**69**	**51.9**
	Chloride	mg/l	**37**	**37**	NA	**33**	**33**	**32**	**29**	**26.6**
	Fluoride	mg/l	**0.08 J**	**0.04 J**	NA	**0.05 J**	**0.004 J**	**0.35**	< 0.3	< 0.3
	pH	SU	6.19	6.05	NA	6.01	6.1	6.07	5.93	6.01
	Sulfate	mg/l	**770**	**780**	NA	**650**	**770**	**630**	**540**	**430**
	Total Dissolved Solids	mg/l	**1240**	**1220**	NA	**1060**	**1160**	**996**	**835**	**1470**
Appendix IV	Antimony	mg/l	< 0.003	< 0.003	NA	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003
	Arsenic	mg/l	< 0.005	< 0.005	NA	< 0.005	**0.0007 J**	**0.0011 J**	**0.0011 J**	**0.00087 J**
	Barium	mg/l	**0.0414**	**0.0365**	NA	**0.0326**	**0.0332**	**0.0365**	**0.0288**	**0.025**
	Beryllium	mg/l	< 0.003	< 0.003	NA	< 0.003	< 0.003	< 0.003	< 0.003	< 0.003
	Cadmium	mg/l	< 0.001	< 0.001	NA	< 0.001	**0.0001 J**	< 0.001	< 0.001	< 0.001
	Chromium	mg/l	< 0.01	< 0.01	NA	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
	Cobalt	mg/l	**0.0171**	**0.0145**	NA	**0.0161**	**0.0367**	**0.0265**	**0.0556**	**0.025**
	Lead	mg/l	< 0.005	< 0.005	NA	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
	Lithium	mg/l	**0.0077 J**	**0.0075 J**	NA	**0.0084 J**	**0.0087 J**	**0.0104 J**	**0.0099 J**	**0.012 J**
	Mercury	mg/l	< 0.0005	< 0.0005	NA	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
	Molybdenum	mg/l	< 0.01	< 0.01	NA	< 0.01	**0.0008 J**	**0.0015 J**	**0.002 J**	**0.0021 J**
	Combined Radium - 226/228	pci/l	**2.28**	**0.639 U**	**0.996**	**0.617 U**	**0.949**	**1.41**	**0.856 U**	**0.974**
	Selenium	mg/l	< 0.01	< 0.01	NA	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
	Thallium	mg/l	< 0.001	< 0.001	NA	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001

Notes:

1. Analytical results are reported in milligrams per liter except for combined radium results, which are reported in picoCuries per liter and pH in standard units.
2. Appendix III = Indicator parameters evaluated during Detection Monitoring.
3. Appendix IV = Parameters evaluated during Assessment Monitoring.

-- Not analyzed for this constituent.

< Analyte was not detected above the laboratory reporting limit (RL) or method detection limit (MDL). Data prior to 2020 is reported to the RL.

NA = Not analyzed.

Laboratory Qualifiers:

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

U - 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.

APPENDIX D

Statistical Analysis

Appendix III Statistically Significant Increase Summary (September 2020)

Appendix III Parameter	Monitoring Wells
Boron	YGWC-44, YGWC-45, YGWC-46A
Calcium	YGWC-45, YGWC-46A, YGWC-52
Chloride	YGWC-44, YGWC-46A
Sulfate	YGWC-45, YGWC-46A
Total Dissolved Solids	YGWC-44, YGWC-45, YGWC-46A, YGWC-52

GROUNDWATER STATS CONSULTING

February 23, 2021

Southern Company Services
Attn: Mr. Joju Abraham
241 Ralph McGill Blvd NE, Bin 10160
Atlanta, Georgia 30308-3374

Re: Plant Yates Ash Pond 1 (AP-1)
Statistical Analysis September 2020 1st Semi-Annual Sample Event

Dear Mr. Abraham,

Groundwater Stats Consulting, formerly the statistical consulting division of Sanitas Technologies, is pleased to provide the September 2020 1st Semi-Annual Groundwater statistical summary of groundwater data for Georgia Power Company's Plant Yates AP-1. The analysis complies with the federal rule for the Disposal of Coal Combustion Residuals from Electric Utilities (CCR Rule, 2015), the Georgia Environmental Protection Division Rules for Solid Waste Management Chapter 391-3-4-.10, and follows the United States Environmental Protection Agency (USEPA) Unified Guidance (2009).

Sampling for the Appendix III parameters began in 2016, and at least 8 background samples were collected at each of the groundwater monitoring wells. Semi-annual sampling of the majority of Appendix IV constituents has been performed for several years in accordance with the Georgia Department of Natural Resources, Environmental Protection Division groundwater monitoring regulations. A list of all parameters is provided below.

The monitoring well network, as provided by Southern Company Services, consists of the following:

- **Upgradient wells:**
  - **AP-1:** YGWA-47
  - **AP-2:** YGWA-1D, YGWA-1I, YGWA-2I, YGWA-3D, YGWA-3I, YGWA-14S and, YGWA-30I
  - **Gypsum Landfill:** GWA-2

        - **AMA-R6:** YGWA-17S, YGWA-18I, YGWA-18S, YGWA-20S, YGWA-21I, YGWA-39, YGWA-40, YGWA-4I, YGWA-5D, and YGWA-5I
    - **Downgradient wells:** YGWC-44, YGWC-45, YGWC-46A, and YGWC-52

Combined upgradient well data from all units at Plant Yates are utilized to construct background limits for Appendix III and IV parameters. Well YGWC-46 was abandoned in June 2020 and well YGWC-46A began baseline sampling in July 2020 to supplement existing data in well YGWC-46. In all cases, concentrations from both wells are below established MCLs. When a minimum of 8 samples have been collected from new well YGWC-46A, the Mann-Whitney test of medians will be used to evaluate whether the medians of both wells are statistically similar. In cases where there are statistically significant differences, the historical record will be truncated so that only data from new well YGWC-46A are evaluated in the confidence interval comparisons to respective Groundwater Protection Standards. Well YGWC-52 was installed in June 2020, and baseline sampling began in August 2020.

All data were sent electronically to Groundwater Stats Consulting, and the statistical analysis was reviewed by Dr. Jim Loftis, Civil & Environmental Engineering professor emeritus at Colorado State University and Senior Advisor to Groundwater Stats Consulting.

The CCR program consists of the constituents listed below. The terms "parameters" and "constituents" are used interchangeably.

- **Appendix III** (Detection Monitoring) **-** boron, calcium, chloride, fluoride, pH, sulfate, and TDS
- **Appendix IV** (Assessment Monitoring) **–** antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, combined radium 226 + 228, fluoride, lead, lithium, mercury, molybdenum, selenium, and thallium

Note that when there are no detections present in downgradient wells for a given constituent, statistical analyses are not required. A summary of well/constituent pairs with 100% nondetects follows this letter. Additionally, when Appendix IV constituents are not detected during a scheduled Scan event, no statistical analyses are required during the semi-annual sample event. During the annual Scan event conducted in August 2020, cadmium, mercury, selenium, and thallium were not detected and, therefore, were not required to be sampled during the September 2020 event. Since all units at Plant Yates utilize combined upgradient well data from individual units, in some cases upgradient wells at a given unit were not sampled for all constituents if no detections were present at downgradient wells for that particular unit. The following constituents were not

detected during their respective Scan event; therefore, upgradient wells at the units listed below were not sampled for that constituent:

- Yates Gypsum Landfill: molybdenum
- Yates AP-2: mercury
- Yates AMA-R6: mercury

For all constituents, a substitution of the most recent reporting limit is used for nondetect data. This generally gives the most conservative limit in each case and in the time series plots, a single reporting limit substitution is used across all wells for a given parameter since the wells are plotted as a group. In the case of cobalt, due to varying detection limits in individual wells, the most recent reporting limit of 0.005 mg/L was substituted across all wells.

Time series plots for Appendix III and IV parameters at all wells are provided for the purpose of screening data at these wells (Figure A). Additionally, a separate section of box plots is included for all constituents at upgradient and downgradient wells (Figure B). The time series plots are used to initially screen for suspected outliers and trends, while the box plots provide visual representation of variation within individual wells and between all wells. Values in background which have been flagged as outliers may be seen in a lighter font and as a disconnected symbol on the graphs. A summary of flagged outliers follows this report (Figure C).

Summary of Statistical Methods – Appendix III and IV Parameters:

Based on the April 2019 evaluation and state and federal regulatory requirements described below, the following methods were selected for Appendix III and IV constituents:

- Appendix III: Interwell prediction limits, combined with a 1-of-2 resample plan for boron, calcium, chloride, fluoride, pH, sulfate, and TDS
- Appendix IV: Confidence intervals on downgradient well data compared against Ground Water Protections Standards (GWPS) for each Appendix IV constituent

The distribution of data is tested using the Shapiro-Wilk/Shapiro-Francia test for normality. Parametric prediction limits (or tolerance limits or confidence intervals as applicable) are utilized when the screened historical data follow a normal or transformed-normal distribution. When data cannot be normalized or the majority of data are nondetects, a nonparametric test is utilized. While the false positive rate associated with the parametric limits is based on an annual 10% (5% per semi-annual event) as

recommended by the EPA Unified Guidance (2009), the false positive rate associated with the nonparametric limits is dependent upon the available background sample size, number of future comparisons, and verification resample plan. The following approaches are used for handling nondetects (USEPA, 2009):

- No statistical analyses are required on wells and analytes containing 100% nondetects (USEPA Unified Guidance, 2009, Chapter 6).
- When data contain <15% nondetects in background, simple substitution of one-half the reporting limit is utilized in the statistical analysis. The reporting limit utilized for nondetects is the practical quantification limit (PQL) as reported by the laboratory.
- When data contain between 15-50% nondetects, the Kaplan-Meier nondetect adjustment is applied to the background data. This technique adjusts the mean and standard deviation of the historical concentrations to account for concentrations below the reporting limit.
- Nonparametric prediction limits are used on data containing greater than 50% nondetects.

Natural systems continuously evolve due to physical changes made to the environment. Examples include capping a landfill, paving areas near a well, or lining a drainage channel to prevent erosion. Periodic updating of background statistical limits is necessary to accommodate these types of changes. In the interwell case, prediction limits are updated with upgradient well data during each event after careful screening for any new outliers. In some cases, the earlier portion of data are deselected prior to construction of limits to provide sensitive limits that will rapidly detect changes in groundwater quality. Even though the data are excluded from the calculation, the values will continue to be reported and shown in tables and graphs.

Summary of Background Screening – Appendix III and IV Constituents - Conducted in April 2019

Outlier and Trend Testing

Time series plots were used to identify suspected outliers for the original well network which consisted of upgradient well YGWA-47 and downgradient wells YGWC-44, YGWC-45, and YGWC-46A, or extreme values that would result in limits that are not representative of the current background data population. All other upgradient well data from neighboring units were previously screened for outliers with their respective reports. Suspected outliers at all wells for Appendix III and IV parameters were formally tested

using Tukey's box plot method and, when identified, flagged in the computer database with "o" and deselected prior to construction of statistical limits.

Using the Tukey box plot method, a couple outliers were identified. While this is not the case in the present data set, when the most recent value is identified as an outlier, values are not flagged in the database at this time as they may represent a possible trend. If future values do not remain at similar concentrations, these values will be flagged as outliers and deselected. Several low values exist in the data sets and appear on the graphs as possible low outliers relative to the laboratory's Practical Quantitation Limit. However, these values are observed trace values (i.e. measurements reported by the laboratory between the Method Detection Limit and the Practical Quantitation Limit) and, therefore, were not flagged as outliers.

One reported nondetect value of 0.01 mg/L for cobalt at well YGWC-45 and one detected value of 6.3 s.u. for pH at well YGWA-47 were flagged as outliers because they were both unusually high during that single event compared to all other values at neighboring wells. When any values are flagged in the database as outliers, they are plotted in a disconnected and lighter symbol on the time series graph. The accompanying data pages will display the flagged value in a lighter font as well.

No obvious seasonal patterns were observed on the time series plots for any of the detected data; therefore, no deseasonalizing adjustments were made to the data. When seasonal patterns are observed, data may be deseasonalized so that the resulting limits will correctly account for the seasonality as a predictable pattern rather than random variation or a release.

While trends may be identified by visual inspection, a quantification of the trend and its significance is needed. The Sen's Slope/Mann Kendall trend test was used to evaluate all data at upgradient well YGWA-47 and downgradient wells YGWC-44, YGWC-45, and YGWC-46 to identify whether statistically significant increasing or decreasing trends were present. The reports were submitted with the background screening analysis, and all other upgradient wells at neighboring units were evaluated for trends with their respective reports. In the absence of suspected contamination, significant trending data are typically not included as part of the background data used for construction of prediction limits. This step serves to eliminate the trend and, thus, reduce variation in background. When statistically significant decreasing trends are present, all available data are evaluated to determine whether earlier concentration levels are significantly different than current reported concentrations and will be deselected as necessary. While no records required adjustment at this time, if that is necessary in the future a summary report will be provided to show the date ranges used in construction of the statistical limits.

The results of the trend analyses were included with the screening report and showed a statistically significant increasing trend for lithium in well YGWC-46A. Concentrations of lithium at this well declined in 2019 and increased again in 2020.

Appendix III – Determination of Spatial Variation

The Analysis of Variance (ANOVA) is typically used to statistically evaluate differences in average concentrations among upgradient wells, which assists in identifying the most appropriate statistical approach (interwell or intrawell). However, only one upgradient well is present and the ANOVA requires a minimum of two wells. Therefore, the ANOVA was not utilized in this background screening.

Interwell tests, which compare downgradient well data to statistical limits constructed from pooled upgradient well data, are appropriate when average concentrations are similar across upgradient wells. Intrawell tests, which compare compliance data from a single well to screened historical data within the same well, are appropriate when upgradient wells exhibit spatial variation; when statistical limits constructed from upgradient wells would not be conservative from a regulatory perspective; and when downgradient water quality is unimpacted compared to upgradient water quality for the same parameter. While data were further tested for intrawell eligibility during the screening, interwell methods will be used for all Appendix III constituents in accordance with Georgia EPD requirements.

Statistical Analysis of Appendix III Parameters – September 2020

All Appendix III parameters were analyzed using interwell prediction limits. Background (upgradient) well data were re-assessed for potential outliers during this analysis. High values for cobalt at upgradient well GWA-2, 0.20 mg/L and 0.16 mg/L from August and September 2020, were two orders of magnitude higher than the other values for that well and therefore, were flagged as outliers in order to maintain limits that were conservative from a regulatory perspective. However, since two observations were at this level, further study may indicate that the values should not be flagged. Values in background which have been flagged as outliers may be seen in a lighter font and as a disconnected symbol on the graphs. A summary of flagged outliers follows this report (Figure C).

Interwell prediction limits, combined with a 1-of-2 resample plan, were constructed using all historical pooled upgradient well data through September 2020 (Figure D). Interwell prediction limits pool upgradient well data to establish a background limit for an individual constituent. The most recent sample from each downgradient well is compared

to the background limit to determine whether there are statistically significant increases (SSIs).

In the event of an initial exceedance of compliance well data, the 1-of-2 resample plan allows for collection of one additional sample to determine whether the initial exceedance is confirmed. When a resample confirms the initial exceedance, a statistically significant increase is identified and further research would be required to identify the cause of the exceedance (i.e. impact from the site, natural variation, or an off-site source). If the resample falls within the statistical limit, the initial exceedance is considered to be a false positive result and, therefore, no exceedance is noted and no further action is necessary. If no resample is collected, the original result is considered a confirmed exceedance. A summary table of the interwell prediction limits follows this letter (Figure D). Prediction limit exceedances were noted for the following Appendix III well/constituent pairs:

- Boron: YGWC-44, YGWC-45, and YGWC-46A
- Calcium: YGWC-45, YGWC-46A, and YGWC-52
- Chloride: YGWC-44 and YGWC-46A
- Sulfate: YGWC-45 and YGWC-46A
- TDS: YGWC-44, YGWC-45, YGWC-46A, and YGWC-52

When prediction limit exceedances are identified in downgradient wells, data are further evaluated using the Sen's Slope/Mann Kendall trend test to determine whether concentrations are statistically increasing, decreasing, or stable (Figure E). Trend tests using the Sen's Slope/Mann Kendall method require a minimum of 6 samples and since well YGWC-52 currently only has two samples, no trend tests were constructed. Upgradient wells are included in the trend analyses for all parameters found to exceed their prediction limit in downgradient wells to identify whether similar patterns exist upgradient of the site. Upgradient trends are an indication of natural variability in groundwater unrelated to practices at the site. Both a summary and complete graphical results of the trend tests follow this report. No statistically significant increasing trends were identified for any downgradient wells. The following statistically significant trends were identified:

Increasing:

- Calcium: YGWA-1D, YGWA-21I, and GWA-2 (all upgradient)
- Chloride: YGWA-17S and YGWA-20S (both upgradient)
- Sulfate: YGWA-1D, YGWA-5I, and GWA-2 (all upgradient)

Decreasing:

- Calcium: YGWA-18S and YGWA-47 (both upgradient)
- Chloride: YGWA-5D (upgradient) and YGWC-46A
- Sulfate: YGWA-5D (upgradient), YGWA-40 (upgradient), YGWA-47 (upgradient), and YGWC-46A
- TDS: YGWA-5D and YGWA-47 (both upgradient)

A complete list of all statistically significant increasing and decreasing trends may be found following this letter in the Trend Test Summary Table.

Statistical Analysis of Appendix IV Parameters – September 2020

For analysis of Appendix IV parameters, confidence intervals for each downgradient well/constituent were compared against corresponding Ground Water Protection Standards (GWPS). GWPS were developed as described below. Well/constituent pairs that have 100% ND or trace values below the reporting limits do not require analysis. Data from all wells for Appendix IV parameters are reassessed for outliers during each analysis. No new values were flagged and a summary of flagged outliers follows this report (Figure C).

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

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

- The maximum contaminant level (MCL) established under §141.62 and §141.66 of this title
- Where an MCL has not been established for a constituent, CCR-rule specified levels have been specified for cobalt (0.006 mg/L), lead (0.015 mg/L), lithium (0.040 mg/L), and molybdenum (0.100 mg/L)
- The respective background level for a constituent when the background level is higher than the MCL or Federal CCR Rule identified GWPS

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

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

Following the above Georgia EPD Rule requirements, GWPS were established for statistical comparison of Appendix IV constituents for the September 2020 sample event for the federal and state rules (Figure G). To complete the statistical comparison to GWPS, confidence intervals were constructed for each of the detected Appendix IV constituents using all historical data through September 2020 in accordance with the federal and state requirements in each downgradient well (Figures H and I, respectively). For new wells YGWC-46A and YGWC-52, all available data through November 2020 were included in the confidence interval comparisons.

The Sanitas software was used to calculate the tolerance limits and the confidence intervals. Those confidence intervals were compared to the GWPS established using the CCR Rules for the federal requirements and the Georgia EPD Rules 391-3-4-.10(6)(a) for the State requirements. Only when the entire confidence interval is above a GWPS is the downgradient well/constituent pair considered to exceed its respective standard. If there is an exceedance of the GWPS, a statistically significant level (SSL) exceedance is identified. Summaries of confidence intervals and complete graphical results follow this letter. For both federal and state confidence intervals, no exceedances were identified.

Thank you for the opportunity to assist you in the statistical analysis of groundwater quality for Plant Yates AP-1. If you have any questions or comments, please feel free to contact us.

For Groundwater Stats Consulting,

Andrew T. Collins
Project Manager

Kristina L. Rayner
Groundwater Statistician

100% Non-Detects

Analysis Run 12/1/2020 10:52 AM View: Appendix IV
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Antimony (mg/L)
YGWC-44, YGWC-52

Arsenic (mg/L)
YGWC-52

Beryllium (mg/L)
YGWC-44, YGWC-45, YGWC-46A, YGWC-52

Cadmium (mg/L)
YGWC-44, YGWC-45, YGWC-52

Chromium (mg/L)
YGWC-44, YGWC-46A

Fluoride, total (mg/L)
YGWC-52

Lead (mg/L)
YGWC-44

Mercury (mg/L)
YGWC-52

Molybdenum (mg/L)
YGWC-52

Selenium (mg/L)
YGWC-44, YGWC-45, YGWC-46A, YGWC-52

Thallium (mg/L)
YGWC-45, YGWC-52

Appendix III - Interwell Prediction Limits - Significant Results

Plant Yates Client: Southern Company Data: Yates Ash Pond1 Printed 11/25/2020, 7:46 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	YGWC-44	0.16	n/a	9/22/2020	0.59	Yes	274	n/a	n/a	45.62	n/a	n/a	0.00004922	NP Inter (normality) 1 of 2
Boron (mg/L)	YGWC-45	0.16	n/a	9/23/2020	0.32	Yes	274	n/a	n/a	45.62	n/a	n/a	0.00004922	NP Inter (normality) 1 of 2
Boron (mg/L)	YGWC-46A	0.16	n/a	9/23/2020	2	Yes	274	n/a	n/a	45.62	n/a	n/a	0.00004922	NP Inter (normality) 1 of 2
Calcium (mg/L)	YGWC-45	37	n/a	9/23/2020	50	Yes	274	n/a	n/a	1.095	n/a	n/a	0.00004922	NP Inter (normality) 1 of 2
Calcium (mg/L)	YGWC-46A	37	n/a	9/23/2020	104	Yes	274	n/a	n/a	1.095	n/a	n/a	0.00004922	NP Inter (normality) 1 of 2
Calcium (mg/L)	YGWC-52	37	n/a	9/22/2020	53.5	Yes	274	n/a	n/a	1.095	n/a	n/a	0.00004922	NP Inter (normality) 1 of 2
Chloride (mg/L)	YGWC-44	7.9	n/a	9/22/2020	14.4	Yes	274	n/a	n/a	0	n/a	n/a	0.00004922	NP Inter (normality) 1 of 2
Chloride (mg/L)	YGWC-46A	7.9	n/a	9/23/2020	28.1	Yes	274	n/a	n/a	0	n/a	n/a	0.00004922	NP Inter (normality) 1 of 2
Sulfate (mg/L)	YGWC-45	160	n/a	9/23/2020	170	Yes	274	n/a	n/a	5.839	n/a	n/a	0.00004922	NP Inter (normality) 1 of 2
Sulfate (mg/L)	YGWC-46A	160	n/a	9/23/2020	430	Yes	274	n/a	n/a	5.839	n/a	n/a	0.00004922	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	YGWC-44	208.9	n/a	9/22/2020	294	Yes	274	10.05	2.547	0.7299	None	sqrt(x)	0.00188	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	YGWC-45	208.9	n/a	9/23/2020	404	Yes	274	10.05	2.547	0.7299	None	sqrt(x)	0.00188	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	YGWC-46A	208.9	n/a	9/23/2020	832	Yes	274	10.05	2.547	0.7299	None	sqrt(x)	0.00188	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	YGWC-52	208.9	n/a	9/22/2020	296	Yes	274	10.05	2.547	0.7299	None	sqrt(x)	0.00188	Param Inter 1 of 2

Appendix III - Interwell Prediction Limits - All Results

Plant Yates Client: Southern Company Data: Yates Ash Pond1 Printed 11/25/2020, 7:46 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	**YGWC-44**	**0.16**	**n/a**	**9/22/2020**	**0.59**	**Yes**	**274**	**n/a**	**n/a**	**45.62**	**n/a**	**n/a**	**0.00004922**	**NP Inter (normality) 1 of 2**
Boron (mg/L)	**YGWC-45**	**0.16**	**n/a**	**9/23/2020**	**0.32**	**Yes**	**274**	**n/a**	**n/a**	**45.62**	**n/a**	**n/a**	**0.00004922**	**NP Inter (normality) 1 of 2**
Boron (mg/L)	**YGWC-46A**	**0.16**	**n/a**	**9/23/2020**	**2**	**Yes**	**274**	**n/a**	**n/a**	**45.62**	**n/a**	**n/a**	**0.00004922**	**NP Inter (normality) 1 of 2**
Boron (mg/L)	YGWC-52	0.16	n/a	9/22/2020	0.1ND	No	274	n/a	n/a	45.62	n/a	n/a	0.00004922	NP Inter (normality) 1 of 2
Calcium (mg/L)	YGWC-44	37	n/a	9/22/2020	30.4	No	274	n/a	n/a	1.095	n/a	n/a	0.00004922	NP Inter (normality) 1 of 2
Calcium (mg/L)	**YGWC-45**	**37**	**n/a**	**9/23/2020**	**50**	**Yes**	**274**	**n/a**	**n/a**	**1.095**	**n/a**	**n/a**	**0.00004922**	**NP Inter (normality) 1 of 2**
Calcium (mg/L)	**YGWC-46A**	**37**	**n/a**	**9/23/2020**	**104**	**Yes**	**274**	**n/a**	**n/a**	**1.095**	**n/a**	**n/a**	**0.00004922**	**NP Inter (normality) 1 of 2**
Calcium (mg/L)	**YGWC-52**	**37**	**n/a**	**9/22/2020**	**53.5**	**Yes**	**274**	**n/a**	**n/a**	**1.095**	**n/a**	**n/a**	**0.00004922**	**NP Inter (normality) 1 of 2**
Chloride (mg/L)	**YGWC-44**	**7.9**	**n/a**	**9/22/2020**	**14.4**	**Yes**	**274**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.00004922**	**NP Inter (normality) 1 of 2**
Chloride (mg/L)	YGWC-45	7.9	n/a	9/23/2020	4.9	No	274	n/a	n/a	0	n/a	n/a	0.00004922	NP Inter (normality) 1 of 2
Chloride (mg/L)	**YGWC-46A**	**7.9**	**n/a**	**9/23/2020**	**28.1**	**Yes**	**274**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.00004922**	**NP Inter (normality) 1 of 2**
Chloride (mg/L)	YGWC-52	7.9	n/a	9/22/2020	4.1	No	274	n/a	n/a	0	n/a	n/a	0.00004922	NP Inter (normality) 1 of 2
Fluoride (mg/L)	YGWC-44	0.68	n/a	9/22/2020	0.1ND	No	327	n/a	n/a	68.5	n/a	n/a	0.00004922	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	YGWC-45	0.68	n/a	9/23/2020	0.082J	No	327	n/a	n/a	68.5	n/a	n/a	0.00004922	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	YGWC-46A	0.68	n/a	9/23/2020	0.12	No	327	n/a	n/a	68.5	n/a	n/a	0.00004922	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	YGWC-52	0.68	n/a	9/22/2020	0.1ND	No	327	n/a	n/a	68.5	n/a	n/a	0.00004922	NP Inter (NDs) 1 of 2
pH (S.U.)	YGWC-44	7.91	4.86	9/22/2020	5.53	No	339	n/a	n/a	0	n/a	n/a	0.00009844	NP Inter (normality) 1 of 2
pH (S.U.)	YGWC-45	7.91	4.86	9/23/2020	6.57	No	339	n/a	n/a	0	n/a	n/a	0.00009844	NP Inter (normality) 1 of 2
pH (S.U.)	YGWC-46A	7.91	4.86	9/23/2020	6.81	No	339	n/a	n/a	0	n/a	n/a	0.00009844	NP Inter (normality) 1 of 2
pH (S.U.)	YGWC-52	7.91	4.86	9/22/2020	5.91	No	339	n/a	n/a	0	n/a	n/a	0.00009844	NP Inter (normality) 1 of 2
Sulfate (mg/L)	YGWC-44	160	n/a	9/22/2020	130	No	274	n/a	n/a	5.839	n/a	n/a	0.00004922	NP Inter (normality) 1 of 2
Sulfate (mg/L)	**YGWC-45**	**160**	**n/a**	**9/23/2020**	**170**	**Yes**	**274**	**n/a**	**n/a**	**5.839**	**n/a**	**n/a**	**0.00004922**	**NP Inter (normality) 1 of 2**
Sulfate (mg/L)	**YGWC-46A**	**160**	**n/a**	**9/23/2020**	**430**	**Yes**	**274**	**n/a**	**n/a**	**5.839**	**n/a**	**n/a**	**0.00004922**	**NP Inter (normality) 1 of 2**
Sulfate (mg/L)	YGWC-52	160	n/a	9/22/2020	156	No	274	n/a	n/a	5.839	n/a	n/a	0.00004922	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	**YGWC-44**	**208.9**	**n/a**	**9/22/2020**	**294**	**Yes**	**274**	**10.05**	**2.547**	**0.7299**	**None**	**sqrt(x)**	**0.00188**	**Param Inter 1 of 2**
Total Dissolved Solids (mg/L)	**YGWC-45**	**208.9**	**n/a**	**9/23/2020**	**404**	**Yes**	**274**	**10.05**	**2.547**	**0.7299**	**None**	**sqrt(x)**	**0.00188**	**Param Inter 1 of 2**
Total Dissolved Solids (mg/L)	**YGWC-46A**	**208.9**	**n/a**	**9/23/2020**	**832**	**Yes**	**274**	**10.05**	**2.547**	**0.7299**	**None**	**sqrt(x)**	**0.00188**	**Param Inter 1 of 2**
Total Dissolved Solids (mg/L)	**YGWC-52**	**208.9**	**n/a**	**9/22/2020**	**296**	**Yes**	**274**	**10.05**	**2.547**	**0.7299**	**None**	**sqrt(x)**	**0.00188**	**Param Inter 1 of 2**

Appendix III Trend Tests - Prediction Limit Exceedances - Significant Results

Plant Yates Client: Southern Company Data: Yates Ash Pond1 Printed 11/25/2020, 12:09 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Calcium (mg/L)	**YGWA-47 (bg)**	**-2.267**	**-48**	**-38**	**Yes**	**12**	**8.333**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	**YGWA-18S (bg)**	**-0.09147**	**-54**	**-53**	**Yes**	**15**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	**YGWA-21I (bg)**	**1.723**	**59**	**53**	**Yes**	**15**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	**GWA-2 (bg)**	**4.326**	**50**	**43**	**Yes**	**13**	**7.692**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	**YGWA-1D (bg)**	**0.9112**	**54**	**53**	**Yes**	**15**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Chloride (mg/L)	**YGWA-17S (bg)**	**0.1906**	**61**	**53**	**Yes**	**15**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Chloride (mg/L)	**YGWA-20S (bg)**	**0.225**	**65**	**53**	**Yes**	**15**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Chloride (mg/L)	**YGWA-5D (bg)**	**-0.9674**	**-68**	**-53**	**Yes**	**15**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Chloride (mg/L)	**YGWC-46A**	**-2.684**	**-57**	**-48**	**Yes**	**14**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	**YGWA-47 (bg)**	**-26.3**	**-61**	**-38**	**Yes**	**12**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	**YGWA-40 (bg)**	**-13.69**	**-44**	**-38**	**Yes**	**12**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	**YGWA-5D (bg)**	**-4.083**	**-81**	**-53**	**Yes**	**15**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	**YGWA-5I (bg)**	**0.1006**	**59**	**53**	**Yes**	**15**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	**GWA-2 (bg)**	**22.54**	**53**	**43**	**Yes**	**13**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	**YGWA-1D (bg)**	**1.104**	**63**	**53**	**Yes**	**15**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	**YGWC-46A**	**-100.1**	**-59**	**-48**	**Yes**	**14**	**7.143**	**n/a**	**n/a**	**0.01**	**NP**
Total Dissolved Solids (mg/L)	**YGWA-47 (bg)**	**-14.88**	**-44**	**-38**	**Yes**	**12**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Total Dissolved Solids (mg/L)	**YGWA-5D (bg)**	**-16.16**	**-59**	**-53**	**Yes**	**15**	**0**	**n/a**	**n/a**	**0.01**	**NP**

Appendix III Trend Tests - Prediction Limit Exceedances - All Results

Plant Yates Client: Southern Company Data: Yates Ash Pond1 Printed 11/25/2020, 12:09 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	YGWA-47 (bg)	-0.001562	-37	-38	No	12	0	n/a	n/a	0.01	NP
Boron (mg/L)	YGWC-44	-0.0202	-15	-38	No	12	0	n/a	n/a	0.01	NP
Boron (mg/L)	YGWC-45	0.006247	15	38	No	12	0	n/a	n/a	0.01	NP
Boron (mg/L)	YGWA-17S (bg)	-0.0004068	-21	-53	No	15	13.33	n/a	n/a	0.01	NP
Boron (mg/L)	YGWA-18I (bg)	0	-38	-53	No	15	73.33	n/a	n/a	0.01	NP
Boron (mg/L)	YGWA-18S (bg)	-0.0005007	-21	-53	No	15	13.33	n/a	n/a	0.01	NP
Boron (mg/L)	YGWA-20S (bg)	0	-17	-53	No	15	86.67	n/a	n/a	0.01	NP
Boron (mg/L)	YGWA-21I (bg)	-0.006488	-47	-53	No	15	60	n/a	n/a	0.01	NP
Boron (mg/L)	YGWA-39 (bg)	0.003122	11	38	No	12	8.333	n/a	n/a	0.01	NP
Boron (mg/L)	YGWA-40 (bg)	-0.02578	-31	-38	No	12	0	n/a	n/a	0.01	NP
Boron (mg/L)	YGWA-4I (bg)	0	-10	-53	No	15	66.67	n/a	n/a	0.01	NP
Boron (mg/L)	YGWA-5D (bg)	0.0006117	23	53	No	15	13.33	n/a	n/a	0.01	NP
Boron (mg/L)	YGWA-5I (bg)	-0.001168	-43	-53	No	15	60	n/a	n/a	0.01	NP
Boron (mg/L)	GWA-2 (bg)	0	-1	-43	No	13	53.85	n/a	n/a	0.01	NP
Boron (mg/L)	YGWA-14S (bg)	-0.002039	-30	-53	No	15	13.33	n/a	n/a	0.01	NP
Boron (mg/L)	YGWA-1D (bg)	-0.0002466	-14	-53	No	15	20	n/a	n/a	0.01	NP
Boron (mg/L)	YGWA-1I (bg)	0	-28	-53	No	15	66.67	n/a	n/a	0.01	NP
Boron (mg/L)	YGWA-2I (bg)	0	-22	-53	No	15	73.33	n/a	n/a	0.01	NP
Boron (mg/L)	YGWA-30I (bg)	0	-31	-53	No	15	80	n/a	n/a	0.01	NP
Boron (mg/L)	YGWA-3D (bg)	0	-15	-53	No	15	53.33	n/a	n/a	0.01	NP
Boron (mg/L)	YGWA-3I (bg)	0	-25	-53	No	15	86.67	n/a	n/a	0.01	NP
Boron (mg/L)	YGWC-46A	-0.0351	-11	-48	No	14	0	n/a	n/a	0.01	NP
Calcium (mg/L)	**YGWA-47 (bg)**	**-2.267**	**-48**	**-38**	**Yes**	**12**	**8.333**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	YGWC-45	-0.1857	-6	-38	No	12	0	n/a	n/a	0.01	NP
Calcium (mg/L)	YGWA-17S (bg)	0.1212	51	53	No	15	0	n/a	n/a	0.01	NP
Calcium (mg/L)	YGWA-18I (bg)	0.02072	8	53	No	15	0	n/a	n/a	0.01	NP
Calcium (mg/L)	**YGWA-18S (bg)**	**-0.09147**	**-54**	**-53**	**Yes**	**15**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	YGWA-20S (bg)	0.1176	52	53	No	15	0	n/a	n/a	0.01	NP
Calcium (mg/L)	**YGWA-21I (bg)**	**1.723**	**59**	**53**	**Yes**	**15**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	YGWA-39 (bg)	0.05098	1	38	No	12	0	n/a	n/a	0.01	NP
Calcium (mg/L)	YGWA-40 (bg)	-1.15	-37	-38	No	12	8.333	n/a	n/a	0.01	NP
Calcium (mg/L)	YGWA-4I (bg)	0.4056	50	53	No	15	0	n/a	n/a	0.01	NP
Calcium (mg/L)	YGWA-5D (bg)	-2.054	-47	-53	No	15	0	n/a	n/a	0.01	NP
Calcium (mg/L)	YGWA-5I (bg)	0.08295	38	53	No	15	0	n/a	n/a	0.01	NP
Calcium (mg/L)	**GWA-2 (bg)**	**4.326**	**50**	**43**	**Yes**	**13**	**7.692**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	YGWA-14S (bg)	-0.0442	-47	-53	No	15	0	n/a	n/a	0.01	NP
Calcium (mg/L)	**YGWA-1D (bg)**	**0.9112**	**54**	**53**	**Yes**	**15**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	YGWA-1I (bg)	-0.1082	-50	-53	No	15	0	n/a	n/a	0.01	NP
Calcium (mg/L)	YGWA-2I (bg)	0.7549	37	53	No	15	0	n/a	n/a	0.01	NP
Calcium (mg/L)	YGWA-30I (bg)	-0.01026	-12	-53	No	15	0	n/a	n/a	0.01	NP
Calcium (mg/L)	YGWA-3D (bg)	0.9217	40	53	No	15	0	n/a	n/a	0.01	NP
Calcium (mg/L)	YGWA-3I (bg)	0.6083	28	53	No	15	0	n/a	n/a	0.01	NP
Calcium (mg/L)	YGWC-46A	-0.5712	-7	-48	No	14	0	n/a	n/a	0.01	NP
Calcium (mg/L)	YGWC-52	16.85	NaN	NaN	No	2	0	n/a	n/a	NaN	NP
Chloride (mg/L)	YGWA-47 (bg)	-0.504	-33	-38	No	12	0	n/a	n/a	0.01	NP
Chloride (mg/L)	YGWC-44	0.3951	37	38	No	12	0	n/a	n/a	0.01	NP
Chloride (mg/L)	**YGWA-17S (bg)**	**0.1906**	**61**	**53**	**Yes**	**15**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Chloride (mg/L)	YGWA-18I (bg)	0.06048	32	53	No	15	0	n/a	n/a	0.01	NP
Chloride (mg/L)	YGWA-18S (bg)	0.2113	40	53	No	15	0	n/a	n/a	0.01	NP
Chloride (mg/L)	**YGWA-20S (bg)**	**0.225**	**65**	**53**	**Yes**	**15**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Chloride (mg/L)	YGWA-21I (bg)	-0.06716	-15	-53	No	15	0	n/a	n/a	0.01	NP
Chloride (mg/L)	YGWA-39 (bg)	0.02132	1	38	No	12	0	n/a	n/a	0.01	NP
Chloride (mg/L)	YGWA-40 (bg)	0.2281	23	38	No	12	0	n/a	n/a	0.01	NP
Chloride (mg/L)	YGWA-4I (bg)	0.1431	41	53	No	15	0	n/a	n/a	0.01	NP
Chloride (mg/L)	**YGWA-5D (bg)**	**-0.9674**	**-68**	**-53**	**Yes**	**15**	**0**	**n/a**	**n/a**	**0.01**	**NP**

Appendix III Trend Tests - Prediction Limit Exceedances - All Results

Plant Yates Client: Southern Company Data: Yates Ash Pond1 Printed 11/25/2020, 12:09 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Chloride (mg/L)	YGWA-5I (bg)	0	1	53	No	15	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GWA-2 (bg)	0.1924	33	43	No	13	0	n/a	n/a	0.01	NP
Chloride (mg/L)	YGWA-14S (bg)	0.1026	20	53	No	15	0	n/a	n/a	0.01	NP
Chloride (mg/L)	YGWA-1D (bg)	0	-25	-53	No	15	0	n/a	n/a	0.01	NP
Chloride (mg/L)	YGWA-1I (bg)	0	-19	-53	No	15	0	n/a	n/a	0.01	NP
Chloride (mg/L)	YGWA-2I (bg)	-0.04955	-30	-53	No	15	0	n/a	n/a	0.01	NP
Chloride (mg/L)	YGWA-30I (bg)	0	-10	-53	No	15	0	n/a	n/a	0.01	NP
Chloride (mg/L)	YGWA-3D (bg)	-0.06957	-46	-53	No	15	0	n/a	n/a	0.01	NP
Chloride (mg/L)	YGWA-3I (bg)	-0.05476	-51	-53	No	15	0	n/a	n/a	0.01	NP
Chloride (mg/L)	**YGWC-46A**	**-2.684**	**-57**	**-48**	**Yes**	**14**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	**YGWA-47 (bg)**	**-26.3**	**-61**	**-38**	**Yes**	**12**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	YGWC-45	-5.424	-31	-38	No	12	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	YGWA-17S (bg)	0.1628	49	53	No	15	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	YGWA-18I (bg)	-0.2596	-42	-53	No	15	20	n/a	n/a	0.01	NP
Sulfate (mg/L)	YGWA-18S (bg)	-0.2017	-42	-53	No	15	13.33	n/a	n/a	0.01	NP
Sulfate (mg/L)	YGWA-20S (bg)	0	18	53	No	15	60	n/a	n/a	0.01	NP
Sulfate (mg/L)	YGWA-21I (bg)	-0.3604	-21	-53	No	15	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	YGWA-39 (bg)	-4.02	-38	-38	No	12	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	**YGWA-40 (bg)**	**-13.69**	**-44**	**-38**	**Yes**	**12**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	YGWA-4I (bg)	0.2408	50	53	No	15	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	**YGWA-5D (bg)**	**-4.083**	**-81**	**-53**	**Yes**	**15**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	**YGWA-5I (bg)**	**0.1006**	**59**	**53**	**Yes**	**15**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	**GWA-2 (bg)**	**22.54**	**53**	**43**	**Yes**	**13**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	YGWA-14S (bg)	0.1735	30	53	No	15	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	**YGWA-1D (bg)**	**1.104**	**63**	**53**	**Yes**	**15**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	YGWA-1I (bg)	-0.3029	-21	-53	No	15	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	YGWA-2I (bg)	0.142	8	53	No	15	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	YGWA-30I (bg)	-0.09481	-21	-53	No	15	13.33	n/a	n/a	0.01	NP
Sulfate (mg/L)	YGWA-3D (bg)	0.6124	52	53	No	15	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	YGWA-3I (bg)	1.18	45	53	No	15	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	**YGWC-46A**	**-100.1**	**-59**	**-48**	**Yes**	**14**	**7.143**	**n/a**	**n/a**	**0.01**	**NP**
Total Dissolved Solids (mg/L)	**YGWA-47 (bg)**	**-14.88**	**-44**	**-38**	**Yes**	**12**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Total Dissolved Solids (mg/L)	YGWC-44	-12.88	-32	-38	No	12	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	YGWC-45	-1.25	-2	-38	No	12	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	YGWA-17S (bg)	6.577	31	53	No	15	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	YGWA-18I (bg)	-1.862	-14	-53	No	15	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	YGWA-18S (bg)	7.897	34	53	No	15	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	YGWA-20S (bg)	5.975	37	53	No	15	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	YGWA-21I (bg)	22.56	45	53	No	15	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	YGWA-39 (bg)	12.16	18	38	No	12	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	YGWA-40 (bg)	-16.26	-36	-38	No	12	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	YGWA-4I (bg)	4.95	19	53	No	15	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	**YGWA-5D (bg)**	**-16.16**	**-59**	**-53**	**Yes**	**15**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Total Dissolved Solids (mg/L)	YGWA-5I (bg)	0.4969	6	53	No	15	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	GWA-2 (bg)	21.56	27	43	No	13	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	YGWA-14S (bg)	0.8555	9	53	No	15	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	YGWA-1D (bg)	3.318	18	53	No	15	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	YGWA-1I (bg)	-3.416	-17	-53	No	15	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	YGWA-2I (bg)	-2.032	-19	-53	No	15	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	YGWA-30I (bg)	3.476	28	53	No	15	13.33	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	YGWA-3D (bg)	4.214	19	53	No	15	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	YGWA-3I (bg)	2.713	14	53	No	15	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	YGWC-46A	-100.7	-41	-48	No	14	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	YGWC-52	-744	NaN	NaN	No	2	0	n/a	n/a	NaN	NP

Upper Tolerance Limit Summary Table

Plant Yates Client: Southern Company Data: Yates Ash Pond1 Printed 11/25/2020, 7:44 PM

Constituent	Upper Lim.	Lower Lim.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	0.0047	n/a	n/a	280	n/a	n/a	86.43	n/a	n/a	NaN	NP Inter(NDs)
Arsenic (mg/L)	0.005	n/a	n/a	328	n/a	n/a	77.13	n/a	n/a	NaN	NP Inter(NDs)
Barium (mg/L)	0.071	n/a	n/a	328	n/a	n/a	3.354	n/a	n/a	NaN	NP Inter(normality)
Beryllium (mg/L)	0.003	n/a	n/a	312	n/a	n/a	83.01	n/a	n/a	NaN	NP Inter(NDs)
Cadmium (mg/L)	0.0025	n/a	n/a	313	n/a	n/a	96.17	n/a	n/a	NaN	NP Inter(NDs)
Chromium (mg/L)	0.01	n/a	n/a	280	n/a	n/a	77.14	n/a	n/a	NaN	NP Inter(NDs)
Cobalt (mg/L)	0.035	n/a	n/a	326	n/a	n/a	69.63	n/a	n/a	NaN	NP Inter(NDs)
Combined Radium 226 + 228 (pCi/L)	6.92	n/a	n/a	306	n/a	n/a	0	n/a	n/a	NaN	NP Inter(normality)
Fluoride (mg/L)	0.68	n/a	n/a	327	n/a	n/a	68.5	n/a	n/a	NaN	NP Inter(NDs)
Lead (mg/L)	0.005	n/a	n/a	282	n/a	n/a	85.82	n/a	n/a	NaN	NP Inter(NDs)
Lithium (mg/L)	0.03	n/a	n/a	307	n/a	n/a	28.34	n/a	n/a	NaN	NP Inter(normality)
Mercury (mg/L)	0.0005	n/a	n/a	251	n/a	n/a	92.43	n/a	n/a	NaN	NP Inter(NDs)
Molybdenum (mg/L)	0.014	n/a	n/a	272	n/a	n/a	59.56	n/a	n/a	NaN	NP Inter(NDs)
Selenium (mg/L)	0.01	n/a	n/a	311	n/a	n/a	91	n/a	n/a	NaN	NP Inter(NDs)
Thallium (mg/L)	0.001	n/a	n/a	281	n/a	n/a	96.44	n/a	n/a	NaN	NP Inter(NDs)

YATES ASH POND 1 GWPS					
Constituent Name	**MCL**	**CCR-Rule Specified**	**Background Limit**	**Federal GWPS**	**State GWPS**
Antimony, Total (mg/L)	0.006		0.0047	0.006	0.006
Arsenic, Total (mg/L)	0.01		0.005	0.01	0.01
Barium, Total (mg/L)	2		0.071	2	2
Beryllium, Total (mg/L)	0.004		0.003	0.004	0.004
Cadmium, Total (mg/L)	0.005		0.0025	0.005	0.005
Chromium, Total (mg/L)	0.1		0.01	0.1	0.1
Cobalt, Total (mg/L)		0.006	0.035	0.035	0.035
Combined Radium, Total (pCi/L)	5		6.9	6.9	6.9
Fluoride, Total (mg/L)	4		0.68	4	4
Lead, Total (mg/L)		0.015	0.005	0.015	0.005
Lithium, Total (mg/L)		0.04	0.03	0.04	0.03
Mercury, Total (mg/L)	0.002		0.0005	0.002	0.002
Molybdenum, Total (mg/L)		0.1	0.014	0.1	0.014
Selenium, Total (mg/L)	0.05		0.01	0.05	0.05
Thallium, Total (mg/L)	0.002		0.001	0.002	0.002

**Grey cell indicates Background Limit is higher than MCL or CCR Rule Specified Level*

**MCL = Maximum Contaminant Level*

**CCR = Coal Combustion Residual*

**GWPS = Groundwater Protection Standard*

Federal Confidence Intervals Summary - All Results (No Significant)

Plant Yates Client: Southern Company Data: Yates Ash Pond1 Printed 12/1/2020, 6:31 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	YGWC-45	0.003	0.003	0.006	No	11	0.002882	0.000392	90.91	None	No	0.006	NP (NDs)
Antimony (mg/L)	YGWC-46A	0.003	0.00029	0.006	No	14	0.002806	0.0007243	92.86	None	No	0.01	NP (NDs)
Arsenic (mg/L)	YGWC-44	0.005	0.0006	0.01	No	13	0.003356	0.002167	61.54	None	No	0.01	NP (NDs)
Arsenic (mg/L)	YGWC-45	0.005	0.00061	0.01	No	13	0.00367	0.002077	69.23	None	No	0.01	NP (NDs)
Arsenic (mg/L)	YGWC-46A	0.005	0.00079	0.01	No	16	0.002269	0.001913	31.25	None	No	0.01	NP (normality)
Barium (mg/L)	YGWC-44	0.118	0.0995	2	No	13	0.1088	0.01246	0	None	No	0.01	Param.
Barium (mg/L)	YGWC-45	0.07362	0.05907	2	No	13	0.06635	0.009784	0	None	No	0.01	Param.
Barium (mg/L)	YGWC-46A	0.04092	0.02908	2	No	16	0.035	0.009106	0	None	No	0.01	Param.
Barium (mg/L)	YGWC-52	0.021	0.019	2	No	4	0.02	0.001155	0	None	No	0.0625	NP (normality)
Cadmium (mg/L)	YGWC-46A	0.0025	0.00012	0.005	No	14	0.001989	0.001016	78.57	None	No	0.01	NP (NDs)
Chromium (mg/L)	YGWC-45	0.01	0.0006	0.1	No	11	0.007935	0.003813	72.73	None	No	0.006	NP (NDs)
Chromium (mg/L)	YGWC-52	0.01	0.00073	0.1	No	4	0.005397	0.005315	50	None	No	0.0625	NP (normality)
Cobalt (mg/L)	YGWC-44	0.0065	0.0017	0.035	No	13	0.003446	0.002867	7.692	None	No	0.01	NP (normality)
Cobalt (mg/L)	YGWC-45	0.0008953	0.000673	0.035	No	12	0.0007842	0.0001416	0	None	No	0.01	Param.
Cobalt (mg/L)	YGWC-46A	0.03023	0.009559	0.035	No	16	0.01989	0.01588	0	None	No	0.01	Param.
Cobalt (mg/L)	YGWC-52	0.002527	0.001223	0.035	No	4	0.001875	0.0002872	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	YGWC-44	1.302	0.3512	6.9	No	13	0.8268	0.6396	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	YGWC-45	1.599	0.8649	6.9	No	13	1.232	0.4939	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	YGWC-46A	1.698	0.9035	6.9	No	16	1.301	0.6102	0	None	No	0.01	Param.
Fluoride, total (mg/L)	YGWC-44	0.12	0.07	4	No	14	0.095	0.01871	78.57	None	No	0.01	NP (NDs)
Fluoride, total (mg/L)	YGWC-45	0.22	0.082	4	No	14	0.182	0.1743	28.57	None	No	0.01	NP (normality)
Fluoride, total (mg/L)	YGWC-46A	0.12	0.08	4	No	17	0.1081	0.07082	29.41	None	No	0.01	NP (normality)
Lead (mg/L)	YGWC-45	0.005	0.005	0.015	No	11	0.004555	0.001477	90.91	None	No	0.006	NP (NDs)
Lead (mg/L)	YGWC-46A	0.005	0.000044	0.015	No	14	0.004646	0.001325	92.86	None	No	0.01	NP (NDs)
Lead (mg/L)	YGWC-52	0.005	0.00006	0.015	No	4	0.001304	0.002464	25	None	No	0.0625	NP (normality)
Lithium (mg/L)	YGWC-44	0.01352	0.01226	0.04	No	13	0.01289	0.000846	0	None	No	0.01	Param.
Lithium (mg/L)	YGWC-45	0.01459	0.01229	0.04	No	13	0.01348	0.001628	0	None	ln(x)	0.01	Param.
Lithium (mg/L)	YGWC-46A	0.01136	0.008529	0.04	No	16	0.009944	0.002174	0	None	No	0.01	Param.
Lithium (mg/L)	YGWC-52	0.005153	0.003797	0.04	No	4	0.004475	0.0002986	0	None	No	0.01	Param.
Mercury (mg/L)	YGWC-44	0.0005	0.0005	0.002	No	10	0.000456	0.0001391	90	None	No	0.011	NP (NDs)
Mercury (mg/L)	YGWC-45	0.0005	0.0005	0.002	No	10	0.0004571	0.0001357	90	None	No	0.011	NP (NDs)
Mercury (mg/L)	YGWC-46A	0.0005	0.00007	0.002	No	12	0.0004642	0.0001241	91.67	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	YGWC-44	0.01	0.0005	0.1	No	13	0.009269	0.002635	92.31	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	YGWC-45	0.01	0.0012	0.1	No	13	0.003462	0.003743	23.08	None	No	0.01	NP (normality)
Molybdenum (mg/L)	YGWC-46A	0.002456	0.001391	0.1	No	16	0.003544	0.00329	18.75	Kaplan-Meier	ln(x)	0.01	Param.
Thallium (mg/L)	YGWC-44	0.001	0.00008	0.002	No	12	0.0009233	0.0002656	91.67	None	No	0.01	NP (NDs)
Thallium (mg/L)	YGWC-46A	0.001	0.000073	0.002	No	14	0.0009338	0.0002478	92.86	None	No	0.01	NP (NDs)

State Confidence Intervals Summary - All Results (No Significant)

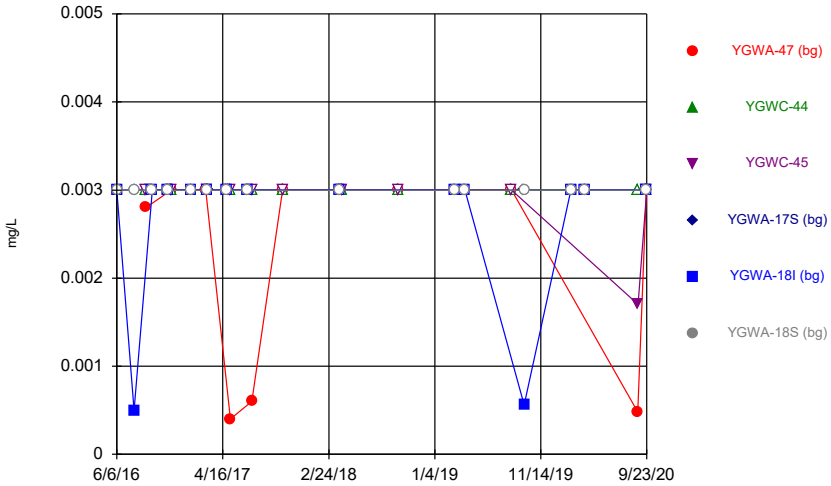
Plant Yates Client: Southern Company Data: Yates Ash Pond1 Printed 12/1/2020, 6:28 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	YGWC-45	0.003	0.003	0.006	No	11	0.002882	0.000392	90.91	None	No	0.006	NP (NDs)
Antimony (mg/L)	YGWC-46A	0.003	0.00029	0.006	No	14	0.002806	0.0007243	92.86	None	No	0.01	NP (NDs)
Arsenic (mg/L)	YGWC-44	0.005	0.0006	0.01	No	13	0.003356	0.002167	61.54	None	No	0.01	NP (NDs)
Arsenic (mg/L)	YGWC-45	0.005	0.00061	0.01	No	13	0.00367	0.002077	69.23	None	No	0.01	NP (NDs)
Arsenic (mg/L)	YGWC-46A	0.005	0.00079	0.01	No	16	0.002269	0.001913	31.25	None	No	0.01	NP (normality)
Barium (mg/L)	YGWC-44	0.118	0.0995	2	No	13	0.1088	0.01246	0	None	No	0.01	Param.
Barium (mg/L)	YGWC-45	0.07362	0.05907	2	No	13	0.06635	0.009784	0	None	No	0.01	Param.
Barium (mg/L)	YGWC-46A	0.04092	0.02908	2	No	16	0.035	0.009106	0	None	No	0.01	Param.
Barium (mg/L)	YGWC-52	0.021	0.019	2	No	4	0.02	0.001155	0	None	No	0.0625	NP (normality)
Cadmium (mg/L)	YGWC-46A	0.0025	0.00012	0.005	No	14	0.001989	0.001016	78.57	None	No	0.01	NP (NDs)
Chromium (mg/L)	YGWC-45	0.01	0.0006	0.1	No	11	0.007935	0.003813	72.73	None	No	0.006	NP (NDs)
Chromium (mg/L)	YGWC-52	0.01	0.00073	0.1	No	4	0.005397	0.005315	50	None	No	0.0625	NP (normality)
Cobalt (mg/L)	YGWC-44	0.0065	0.0017	0.035	No	13	0.003446	0.002867	7.692	None	No	0.01	NP (normality)
Cobalt (mg/L)	YGWC-45	0.0008953	0.000673	0.035	No	12	0.0007842	0.0001416	0	None	No	0.01	Param.
Cobalt (mg/L)	YGWC-46A	0.03023	0.009559	0.035	No	16	0.01989	0.01588	0	None	No	0.01	Param.
Cobalt (mg/L)	YGWC-52	0.002527	0.001223	0.035	No	4	0.001875	0.0002872	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	YGWC-44	1.302	0.3512	6.9	No	13	0.8268	0.6396	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	YGWC-45	1.599	0.8649	6.9	No	13	1.232	0.4939	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	YGWC-46A	1.698	0.9035	6.9	No	16	1.301	0.6102	0	None	No	0.01	Param.
Fluoride, total (mg/L)	YGWC-44	0.12	0.07	4	No	14	0.095	0.01871	78.57	None	No	0.01	NP (NDs)
Fluoride, total (mg/L)	YGWC-45	0.22	0.082	4	No	14	0.182	0.1743	28.57	None	No	0.01	NP (normality)
Fluoride, total (mg/L)	YGWC-46A	0.12	0.08	4	No	17	0.1081	0.07082	29.41	None	No	0.01	NP (normality)
Lead (mg/L)	YGWC-45	0.005	0.005	0.005	No	11	0.004555	0.001477	90.91	None	No	0.006	NP (NDs)
Lead (mg/L)	YGWC-46A	0.005	0.000044	0.005	No	14	0.004646	0.001325	92.86	None	No	0.01	NP (NDs)
Lead (mg/L)	YGWC-52	0.005	0.00006	0.005	No	4	0.001304	0.002464	25	None	No	0.0625	NP (normality)
Lithium (mg/L)	YGWC-44	0.01352	0.01226	0.03	No	13	0.01289	0.000846	0	None	No	0.01	Param.
Lithium (mg/L)	YGWC-45	0.01459	0.01229	0.03	No	13	0.01348	0.001628	0	None	ln(x)	0.01	Param.
Lithium (mg/L)	YGWC-46A	0.01136	0.008529	0.03	No	16	0.009944	0.002174	0	None	No	0.01	Param.
Lithium (mg/L)	YGWC-52	0.005153	0.003797	0.03	No	4	0.004475	0.0002986	0	None	No	0.01	Param.
Mercury (mg/L)	YGWC-44	0.0005	0.0005	0.002	No	10	0.000456	0.0001391	90	None	No	0.011	NP (NDs)
Mercury (mg/L)	YGWC-45	0.0005	0.0005	0.002	No	10	0.0004571	0.0001357	90	None	No	0.011	NP (NDs)
Mercury (mg/L)	YGWC-46A	0.0005	0.00007	0.002	No	12	0.0004642	0.0001241	91.67	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	YGWC-44	0.01	0.0005	0.014	No	13	0.009269	0.002635	92.31	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	YGWC-45	0.01	0.0012	0.014	No	13	0.003462	0.003743	23.08	None	No	0.01	NP (normality)
Molybdenum (mg/L)	YGWC-46A	0.002456	0.001391	0.014	No	16	0.003544	0.00329	18.75	Kaplan-Meier	ln(x)	0.01	Param.
Thallium (mg/L)	YGWC-44	0.001	0.00008	0.002	No	12	0.0009233	0.0002656	91.67	None	No	0.01	NP (NDs)
Thallium (mg/L)	YGWC-46A	0.001	0.000073	0.002	No	14	0.0009338	0.0002478	92.86	None	No	0.01	NP (NDs)

FIGURE A.

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Time Series



Constituent: Antimony Analysis Run 12/1/2020 12:17 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
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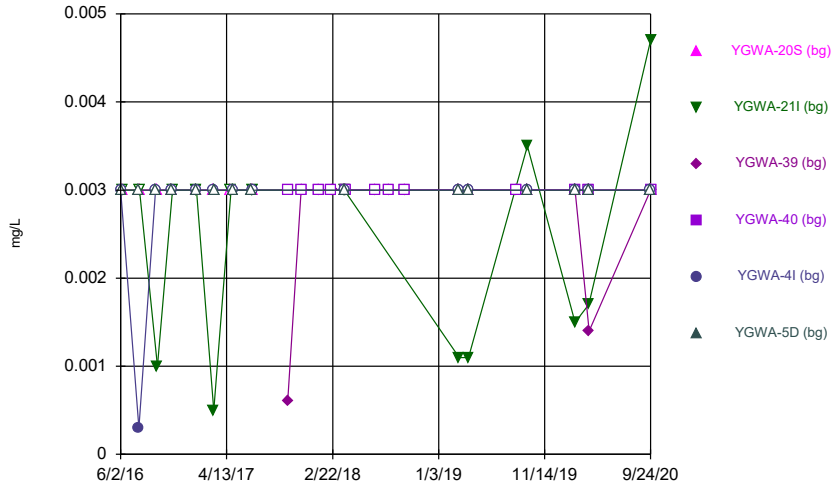

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Plant Yates Client: Southern Company Data: Yates Ash Pond1

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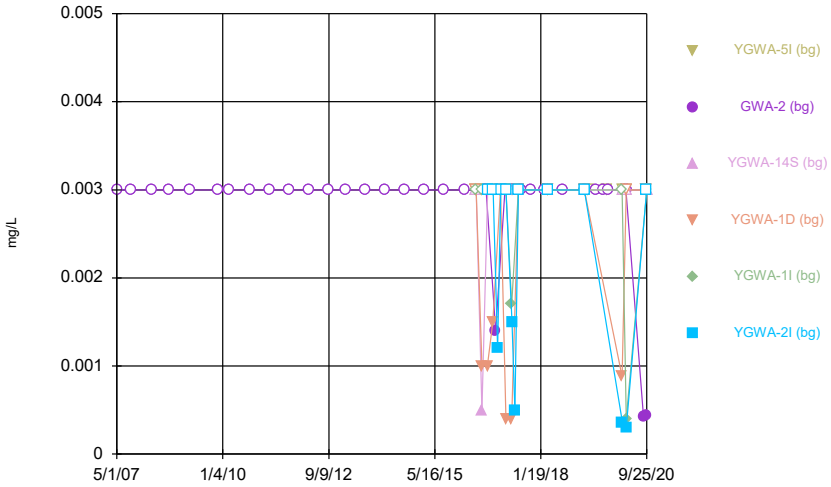

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Plant Yates Client: Southern Company Data: Yates Ash Pond1

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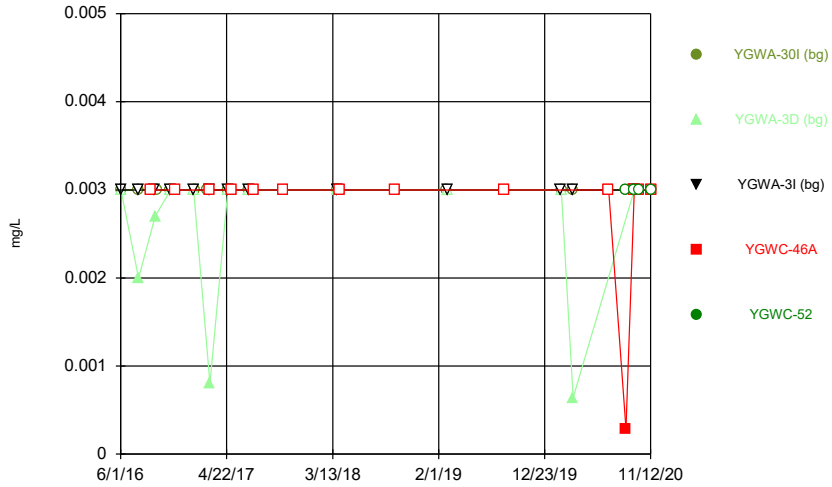

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Plant Yates Client: Southern Company Data: Yates Ash Pond1

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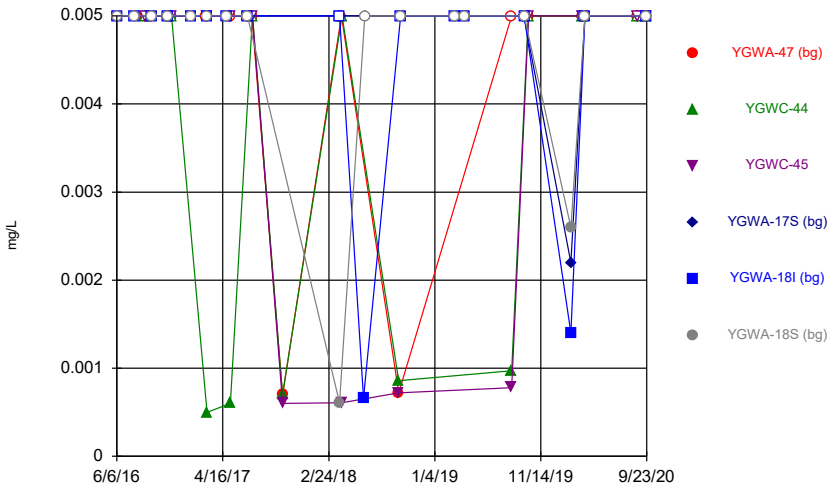

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Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
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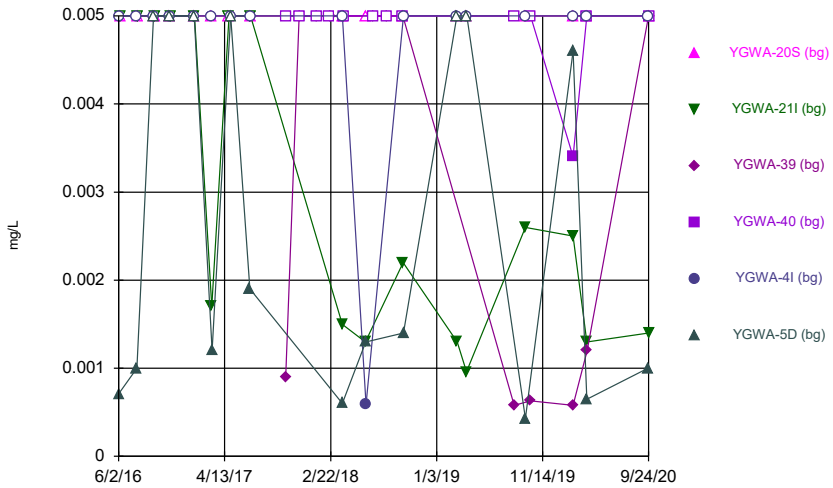

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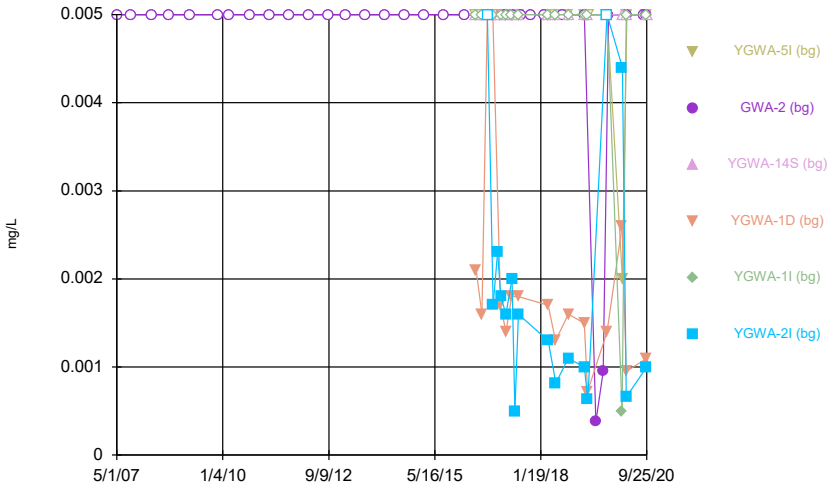

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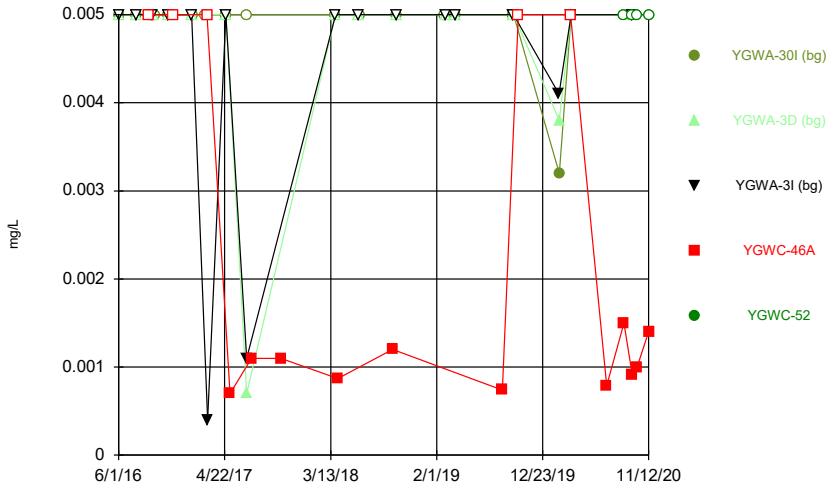

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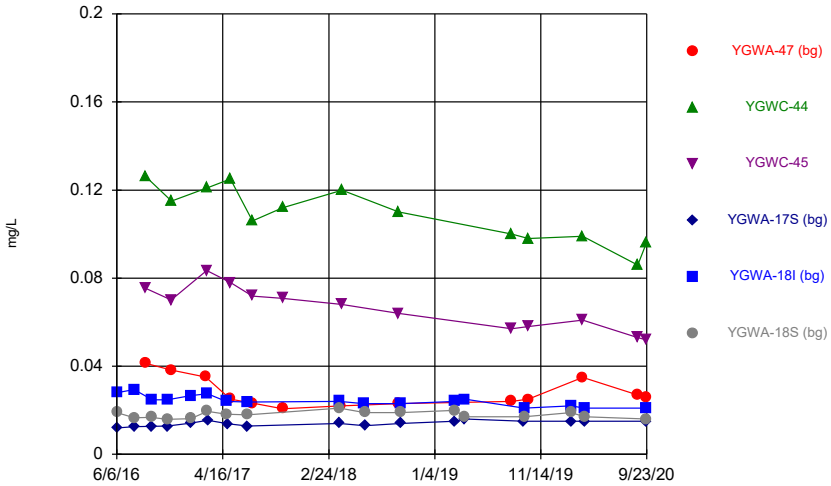
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Time Series



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Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

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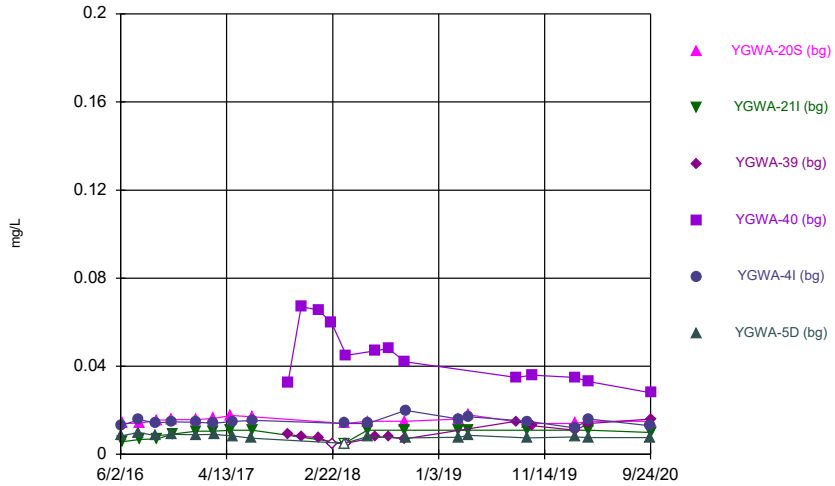

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Plant Yates Client: Southern Company Data: Yates Ash Pond1

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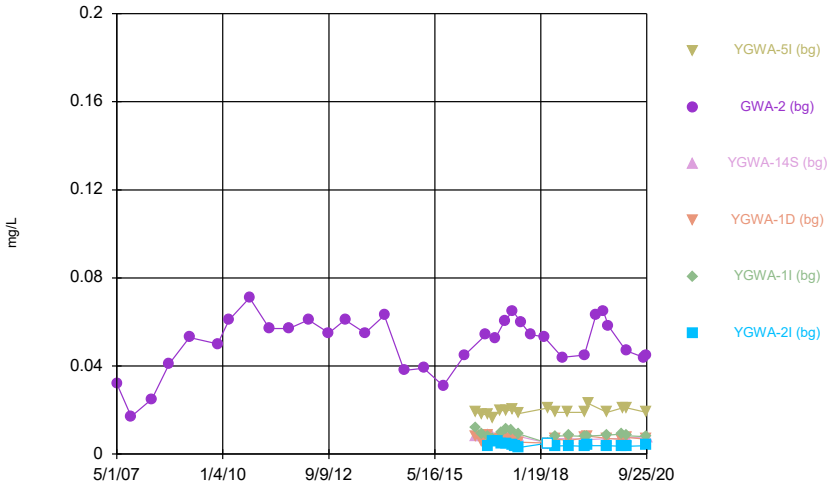

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Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

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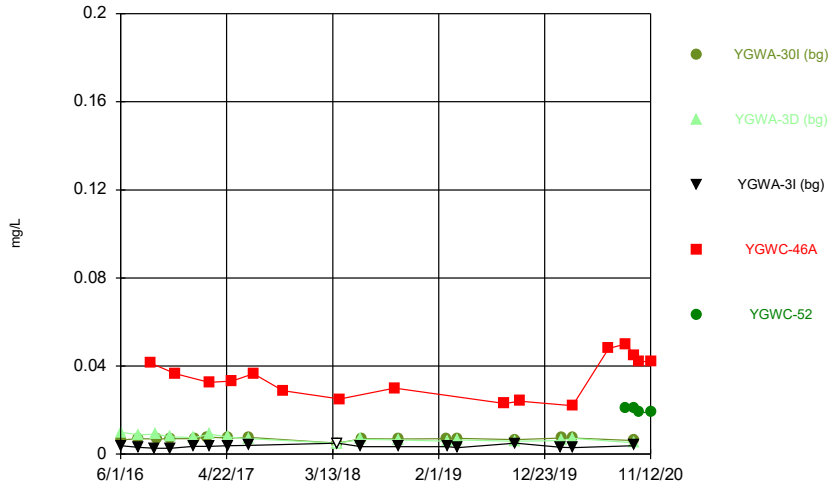

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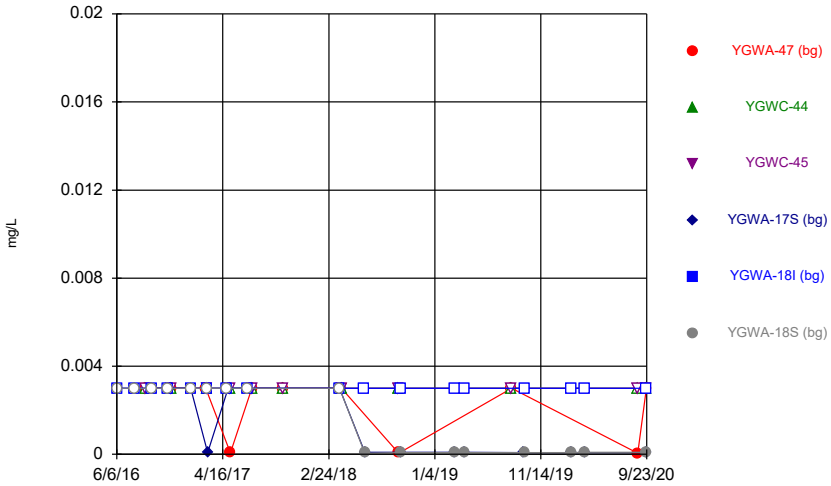

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Hollow symbols indicate censored values.

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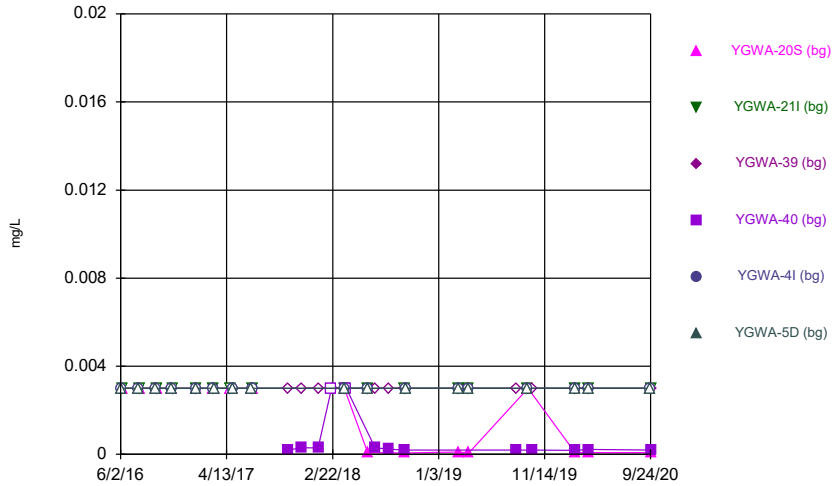

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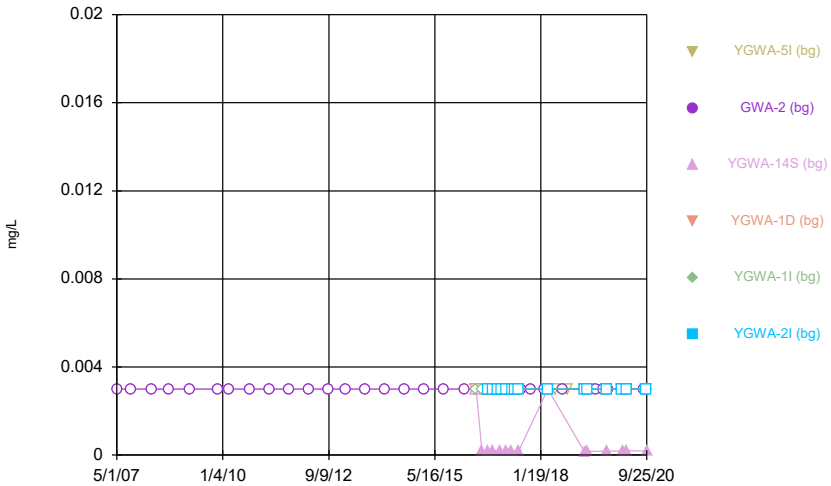

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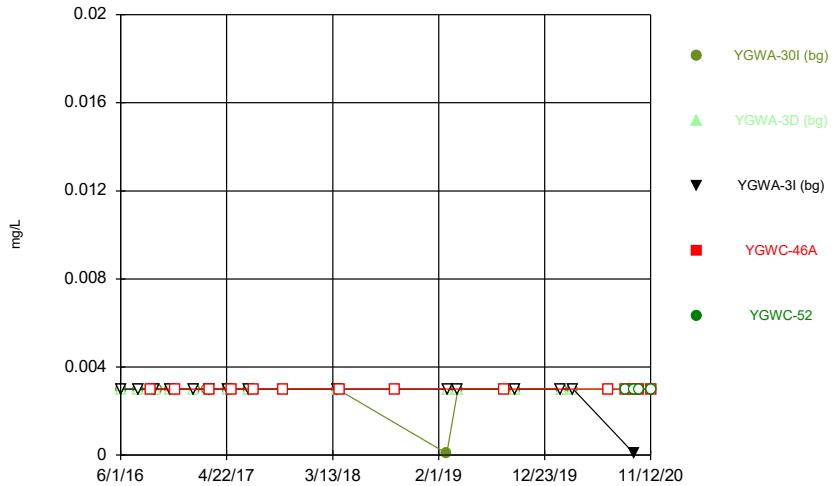

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Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

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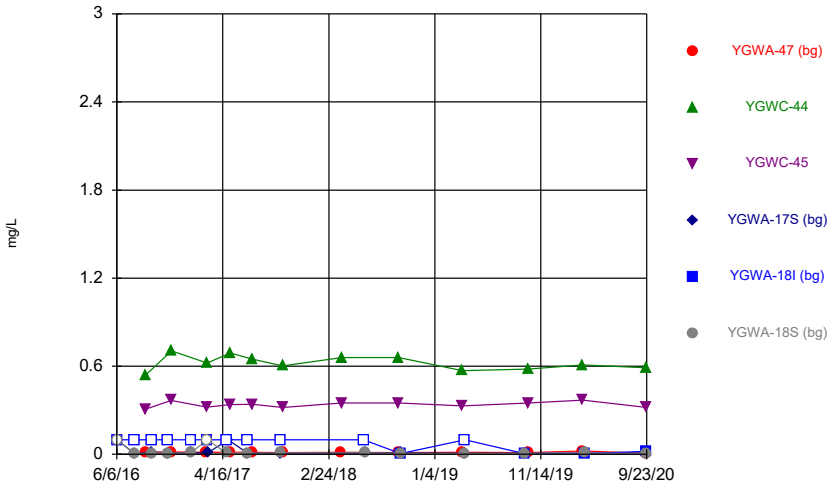
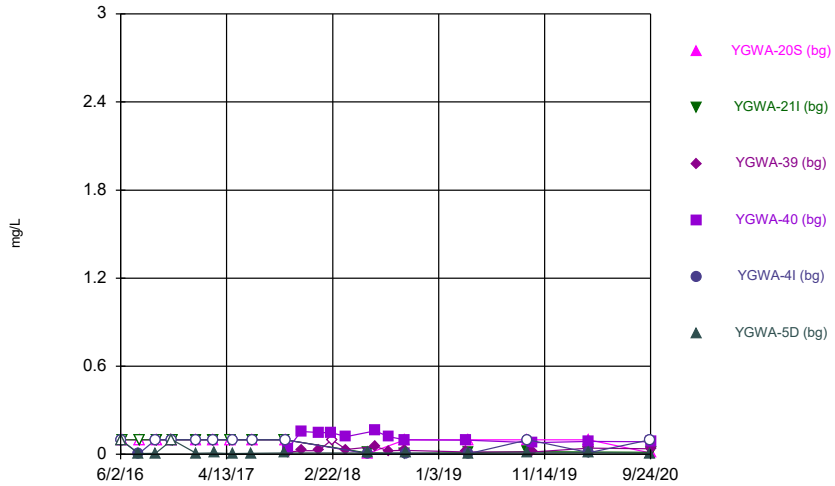


Constituent: Boron, total Analysis Run 12/1/2020 12:17 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Time Series



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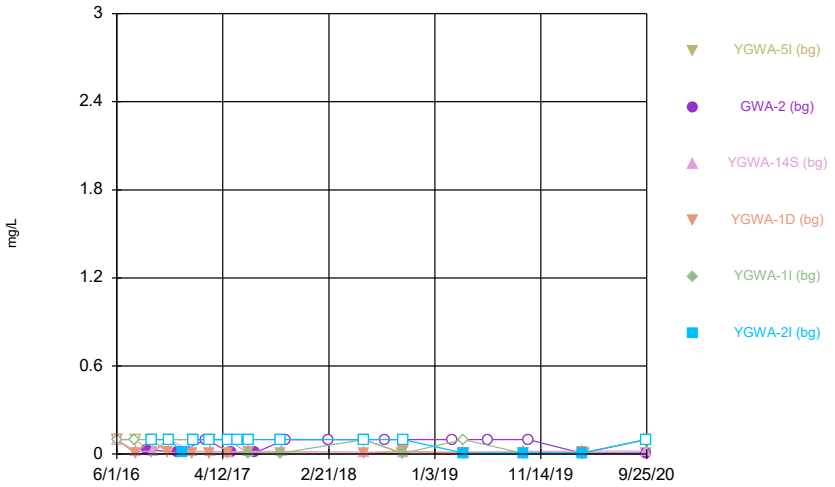

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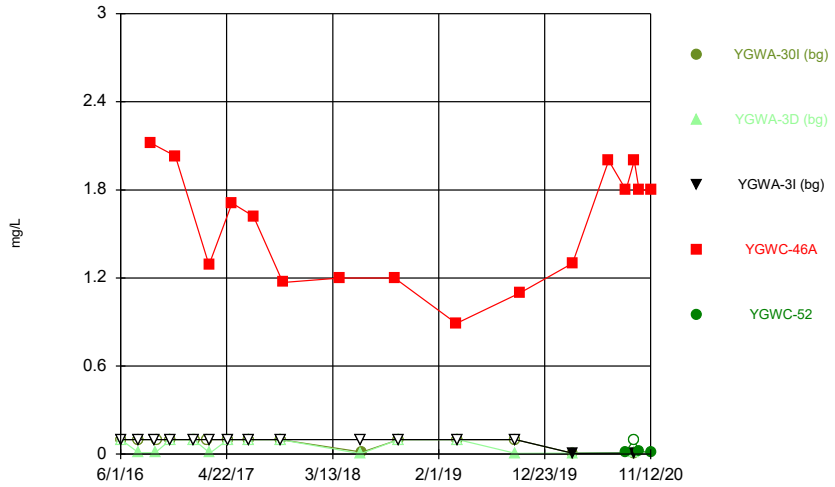

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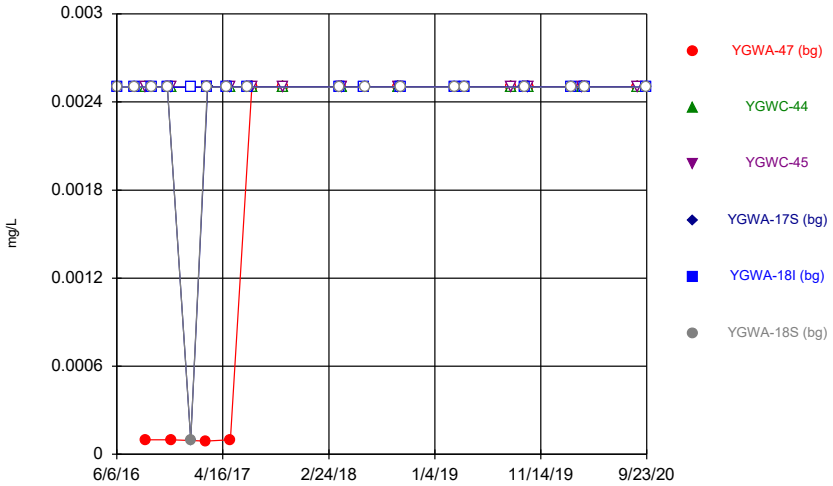

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Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
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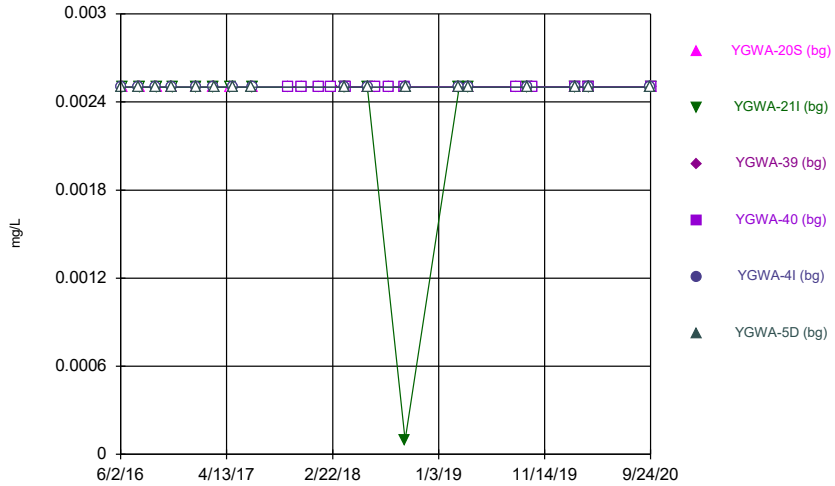

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Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
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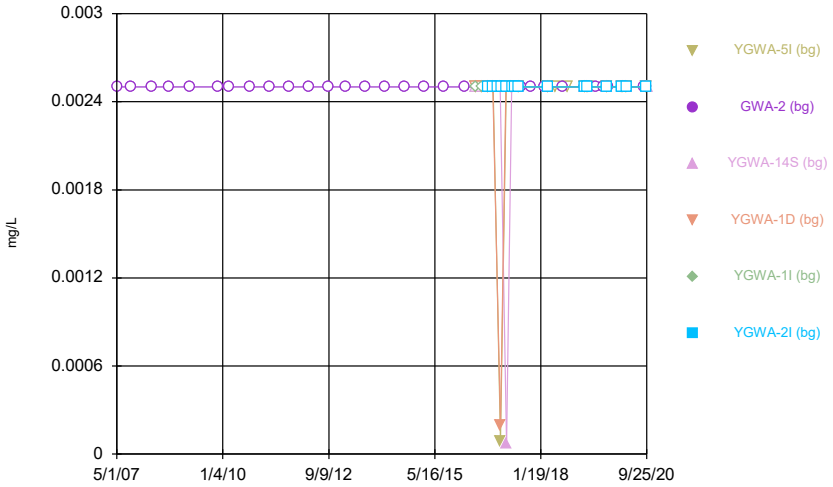
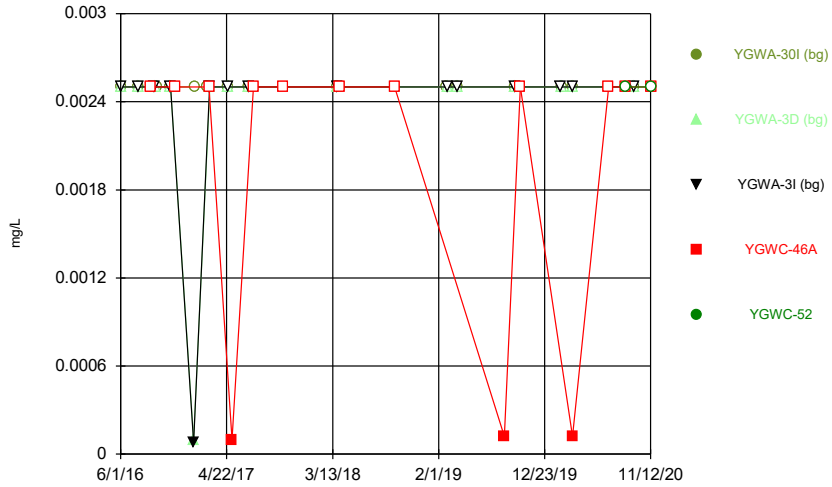


Constituent: Cadmium Analysis Run 12/1/2020 12:17 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

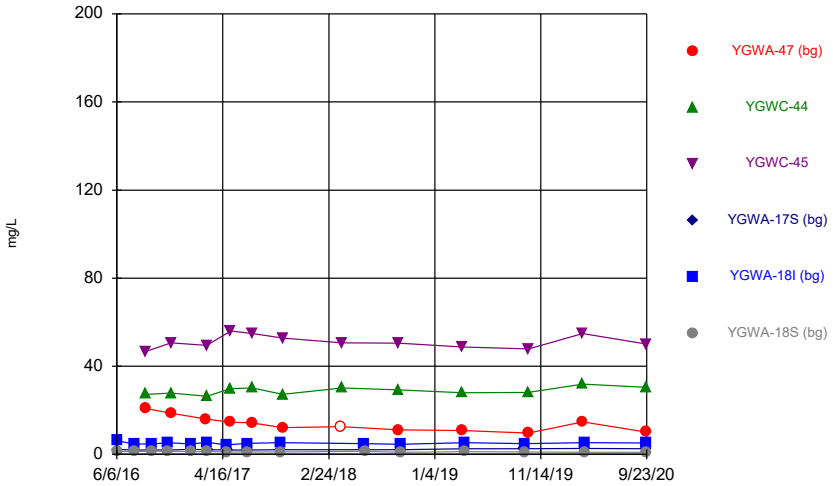
Time Series



Constituent: Cadmium Analysis Run 12/1/2020 12:17 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

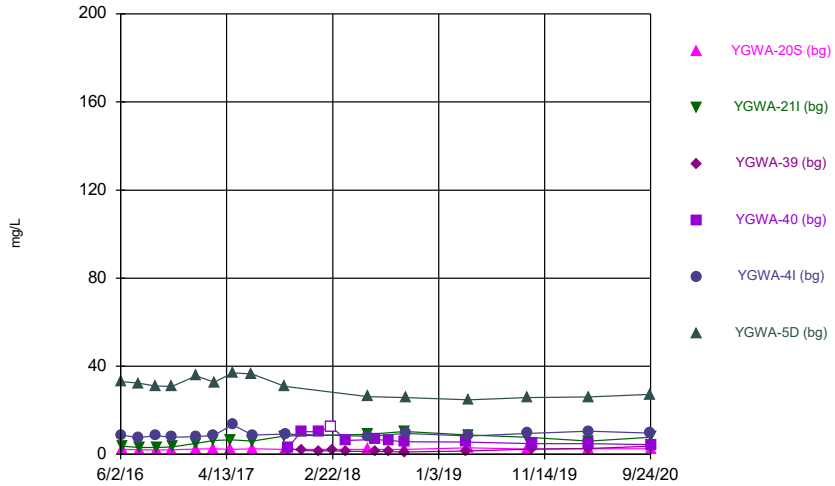
Time Series



Constituent: Calcium, total Analysis Run 12/1/2020 12:17 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

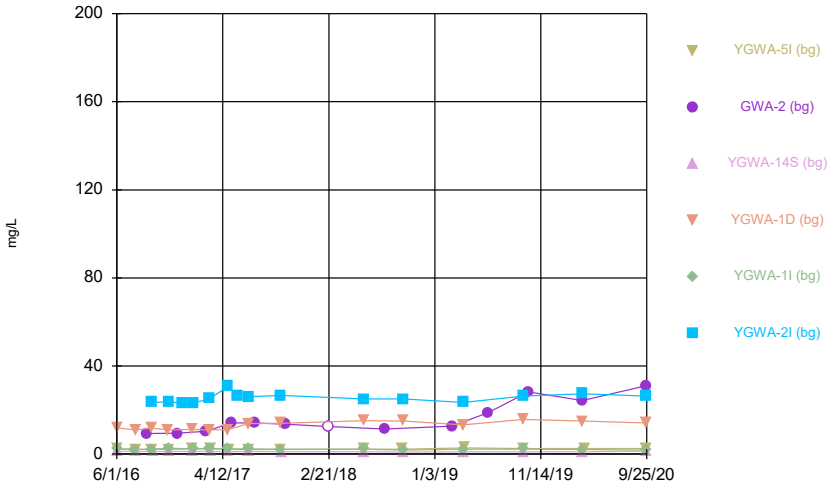
Time Series



Constituent: Calcium, total Analysis Run 12/1/2020 12:17 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

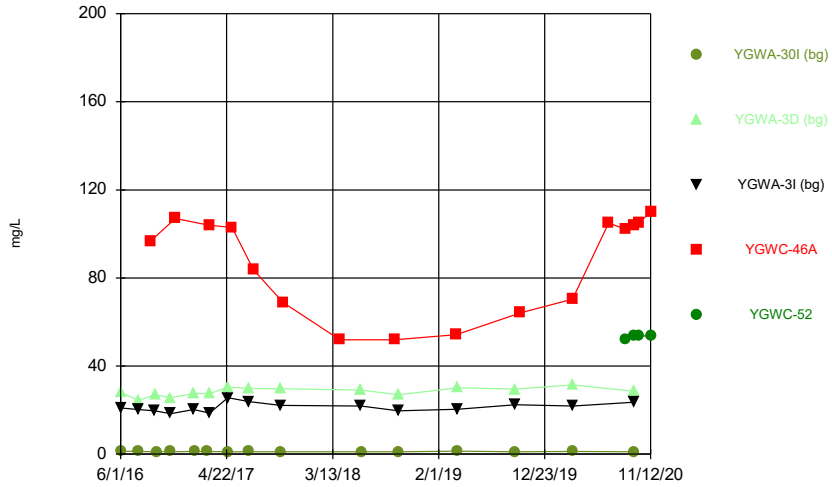
Time Series



Constituent: Calcium, total Analysis Run 12/1/2020 12:17 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

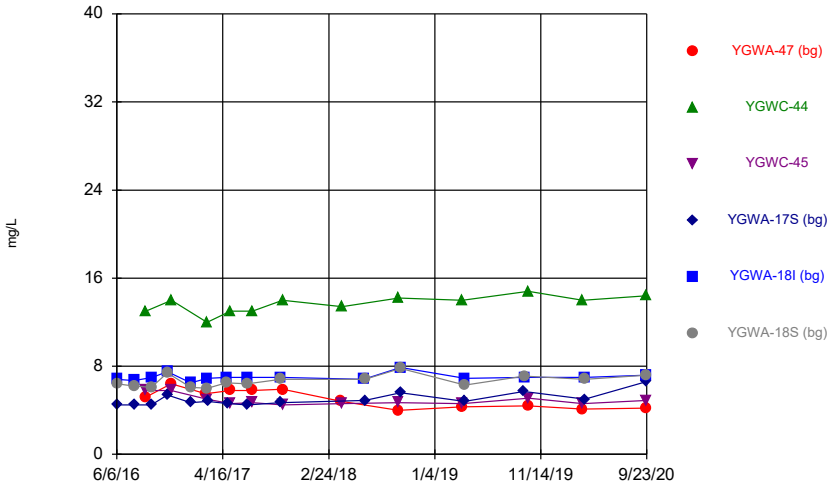
Time Series



Constituent: Calcium, total Analysis Run 12/1/2020 12:17 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Time Series

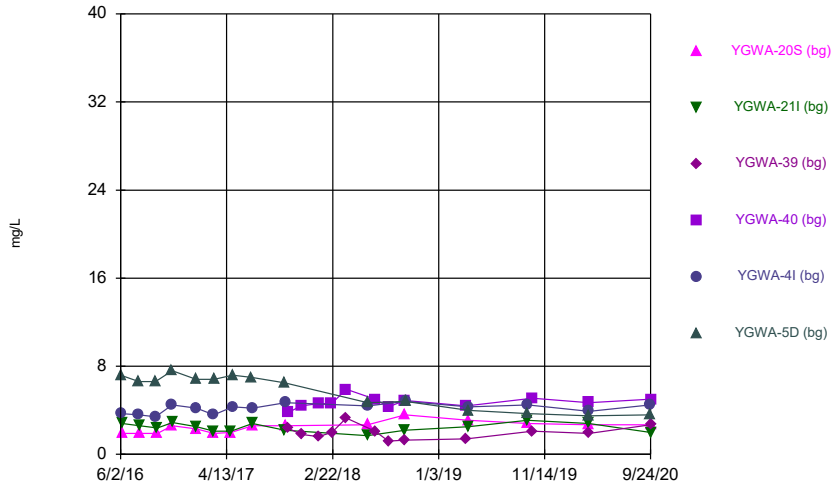


Constituent: Chloride, Total Analysis Run 12/1/2020 12:18 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Time Series

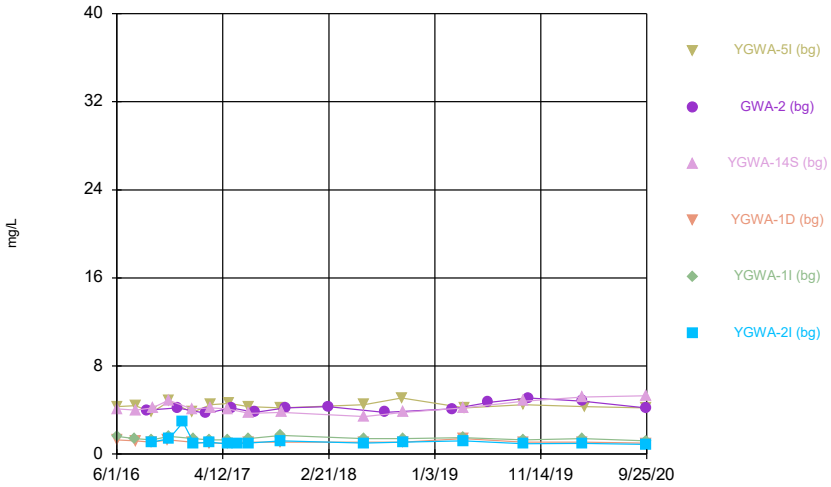


Constituent: Chloride, Total Analysis Run 12/1/2020 12:18 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Time Series

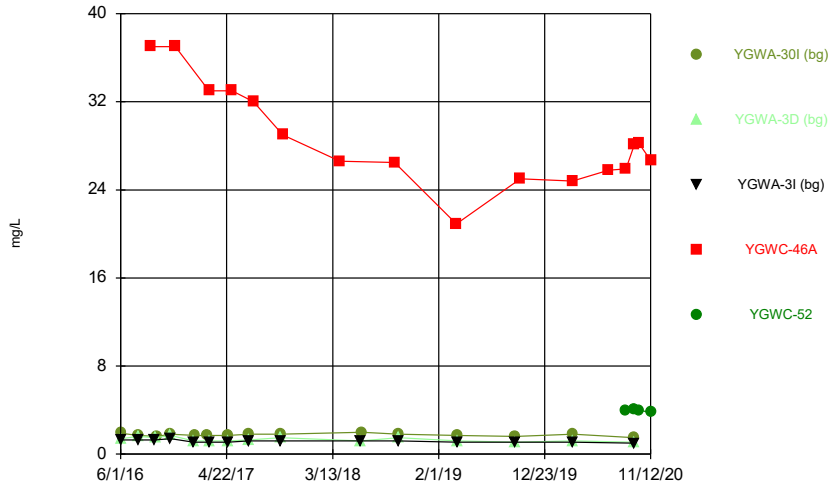


Constituent: Chloride, Total Analysis Run 12/1/2020 12:18 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Time Series

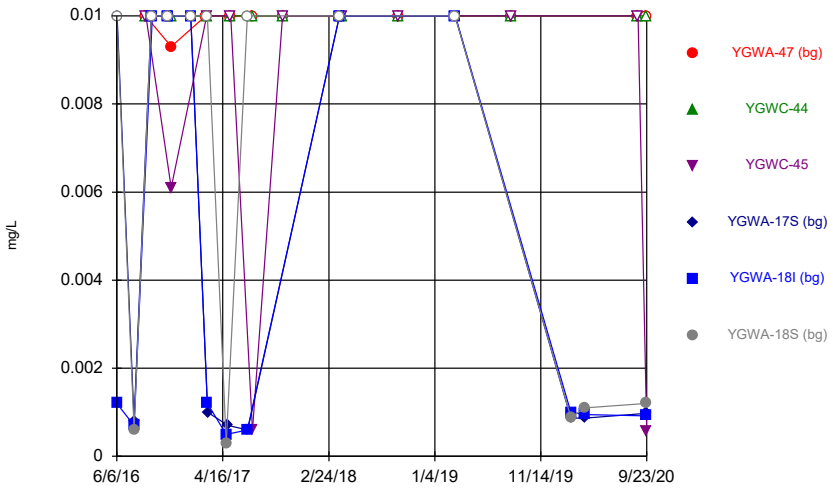


Constituent: Chloride, Total Analysis Run 12/1/2020 12:18 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

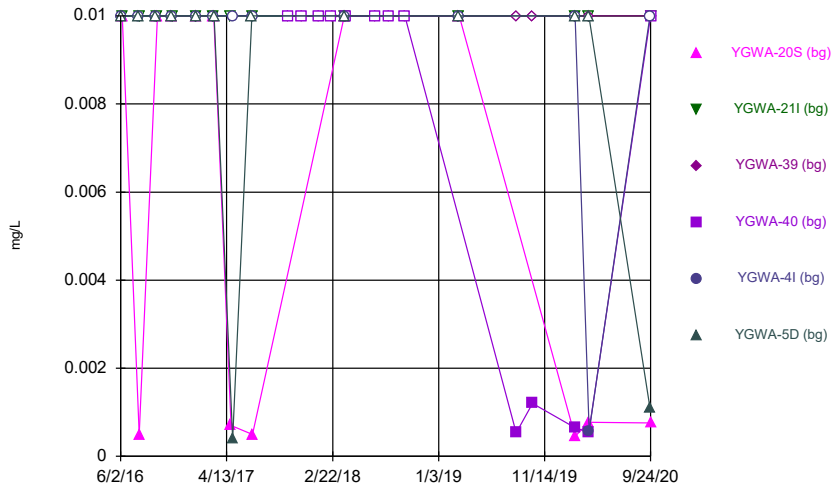
Time Series



Constituent: Chromium Analysis Run 12/1/2020 12:18 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

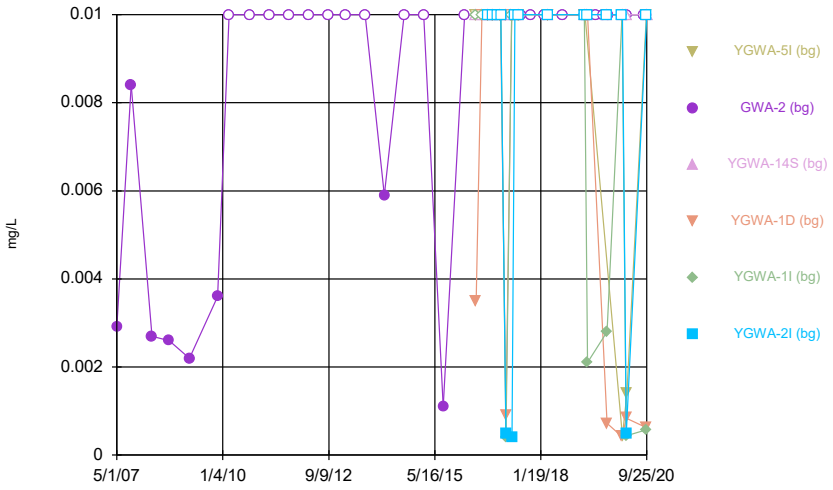
Time Series



Constituent: Chromium Analysis Run 12/1/2020 12:18 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

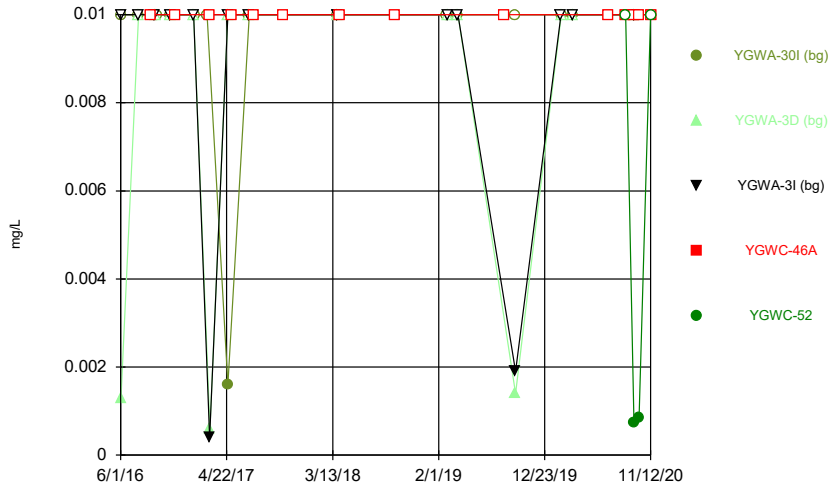
Time Series



Constituent: Chromium Analysis Run 12/1/2020 12:18 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

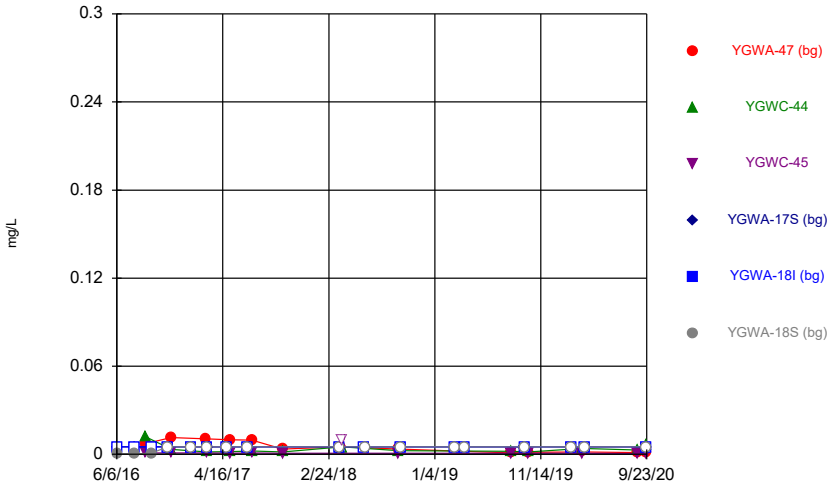
Time Series



Constituent: Chromium Analysis Run 12/1/2020 12:18 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

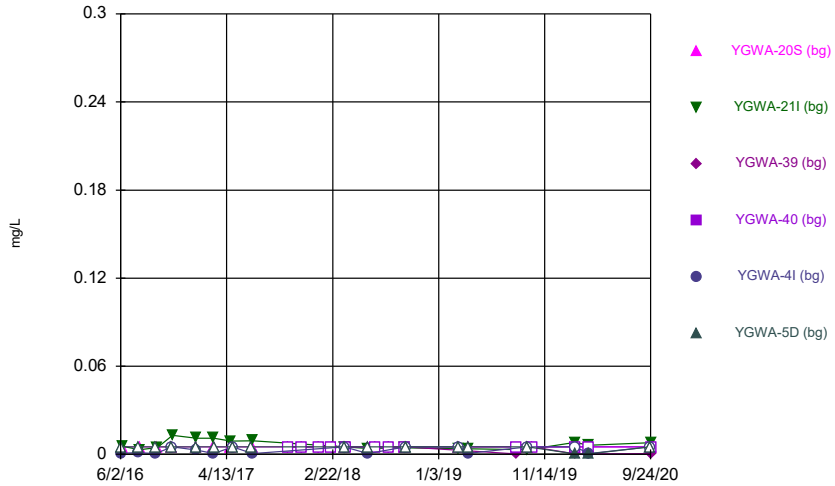
Time Series



Constituent: Cobalt Analysis Run 12/1/2020 12:18 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

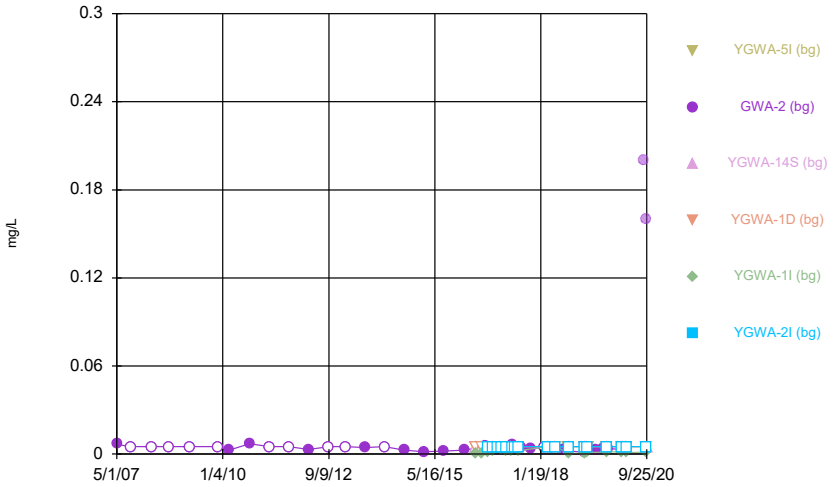
Time Series



Constituent: Cobalt Analysis Run 12/1/2020 12:18 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Time Series



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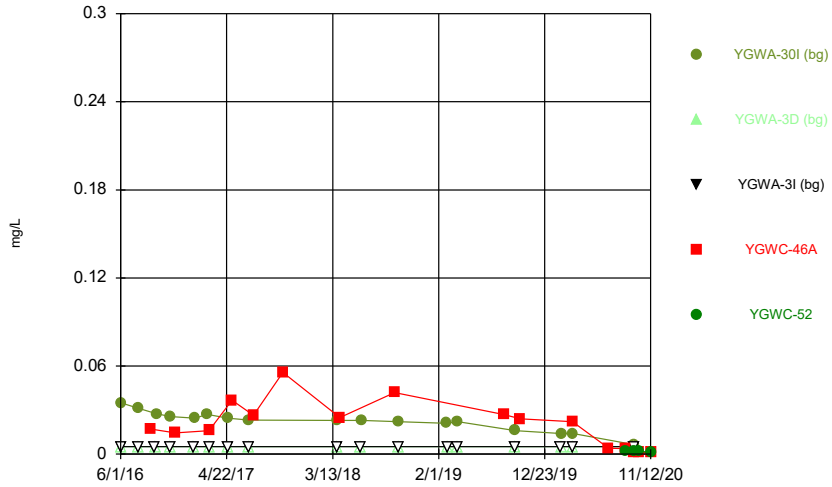
Plant Yates Client: Southern Company Data: Yates Ash Pond1

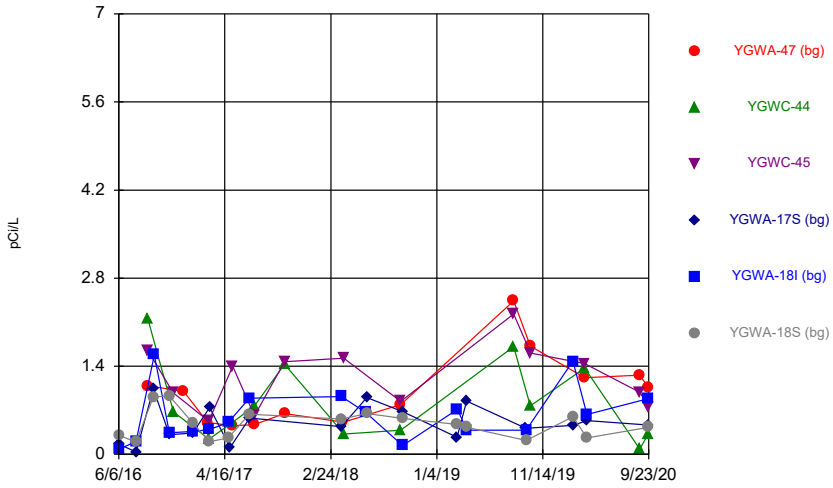
Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Time Series



Constituent: Cobalt Analysis Run 12/1/2020 12:18 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Time Series

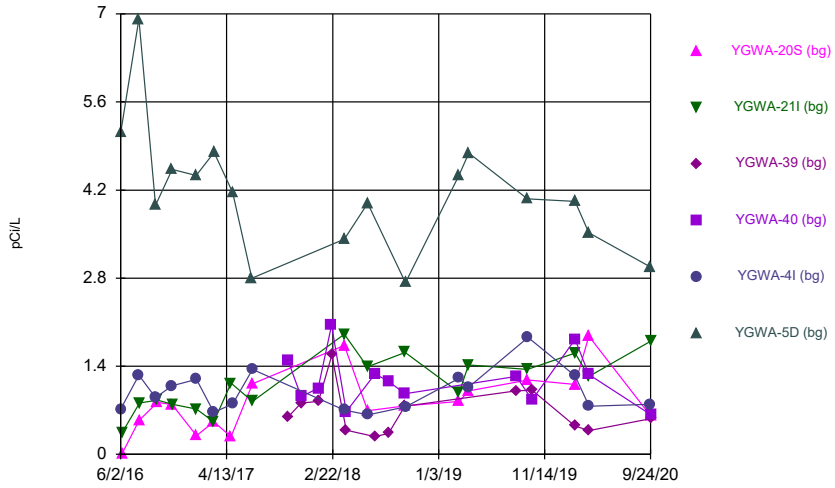


Constituent: Combined Radium 226 + 228 Analysis Run 12/1/2020 12:18 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Time Series

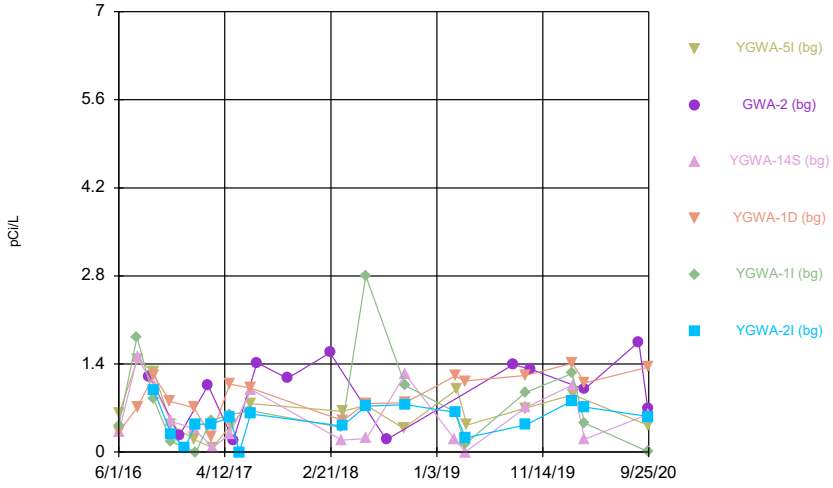


Constituent: Combined Radium 226 + 228 Analysis Run 12/1/2020 12:18 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Time Series

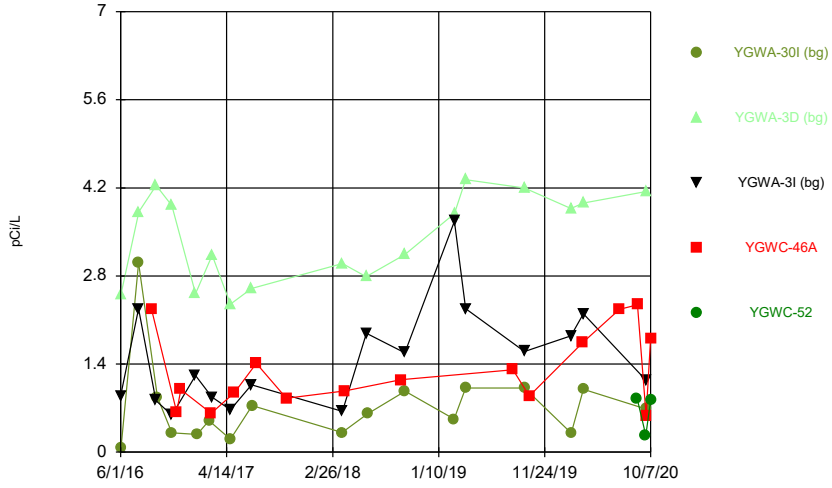


Constituent: Combined Radium 226 + 228 Analysis Run 12/1/2020 12:18 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Time Series

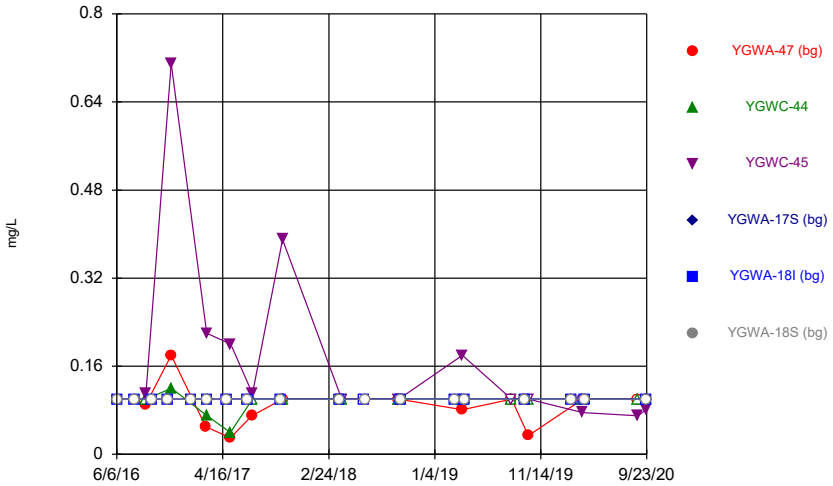


Constituent: Combined Radium 226 + 228 Analysis Run 12/1/2020 12:18 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

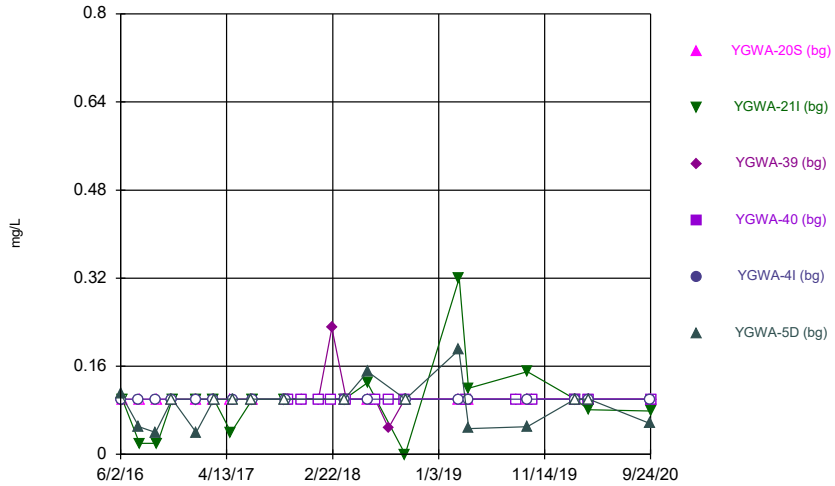
Time Series



Constituent: Fluoride, total Analysis Run 12/1/2020 12:18 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

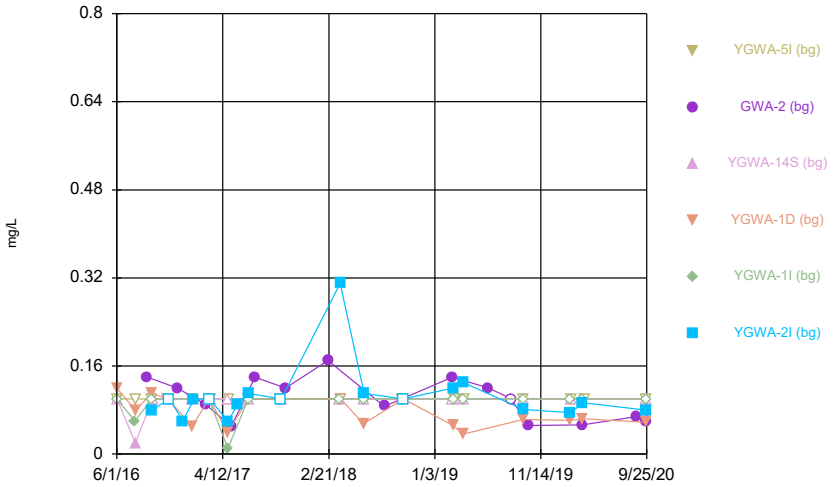
Time Series



Constituent: Fluoride, total Analysis Run 12/1/2020 12:18 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

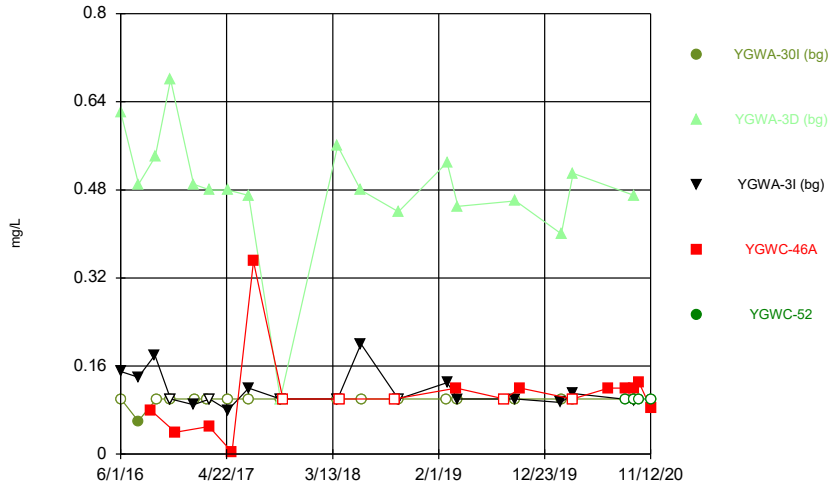
Time Series



Constituent: Fluoride, total Analysis Run 12/1/2020 12:18 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

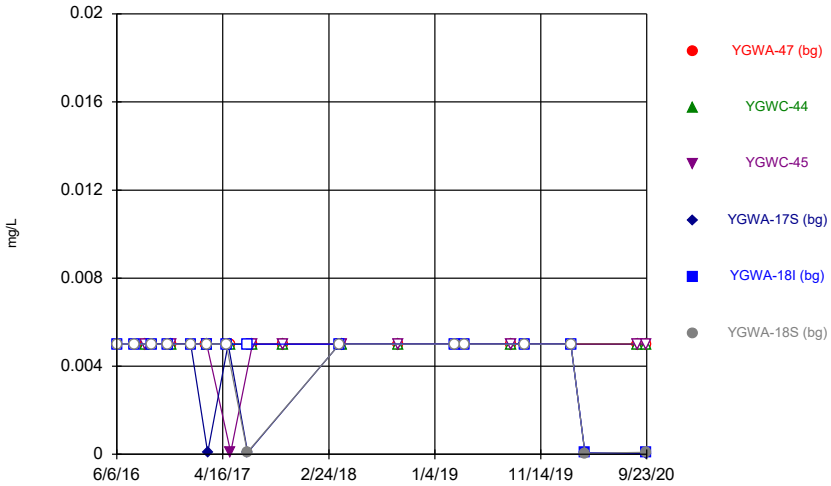
Time Series



Constituent: Fluoride, total Analysis Run 12/1/2020 12:18 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

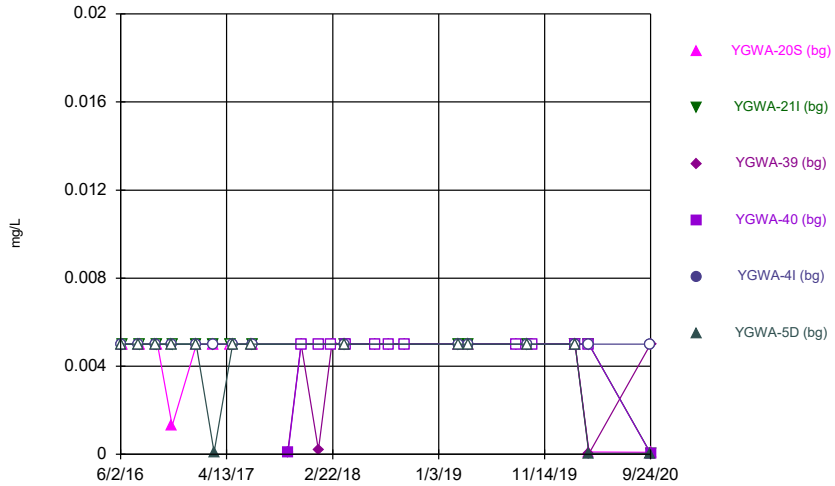
Time Series



Constituent: Lead Analysis Run 12/1/2020 12:18 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

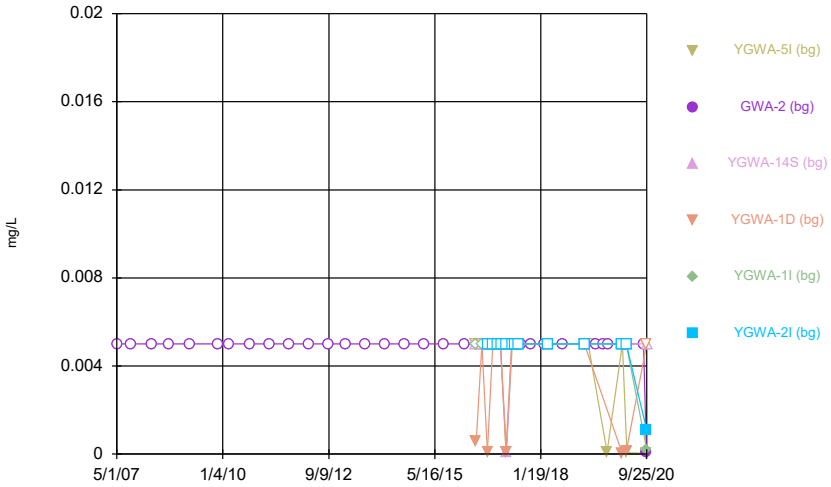
Time Series



Constituent: Lead Analysis Run 12/1/2020 12:18 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

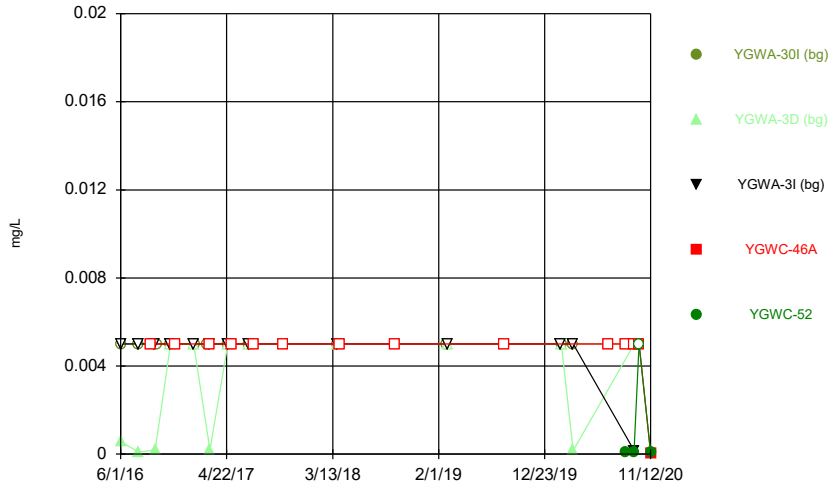
Time Series



Constituent: Lead Analysis Run 12/1/2020 12:18 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

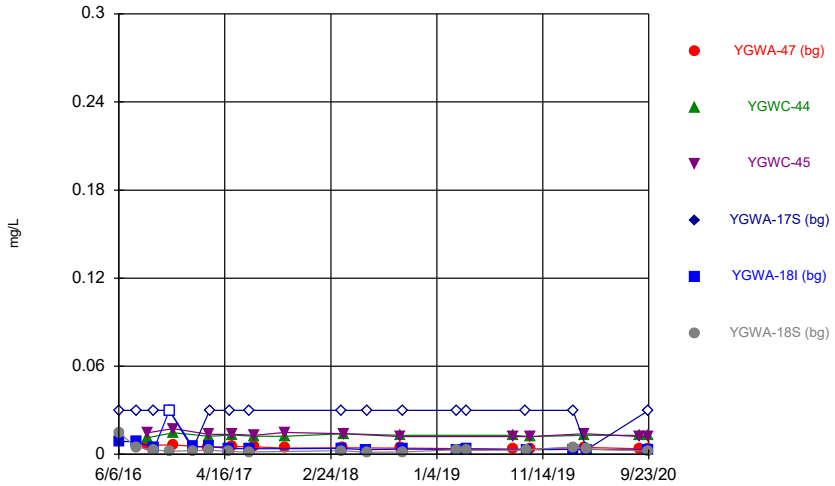
Time Series



Constituent: Lead Analysis Run 12/1/2020 12:18 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

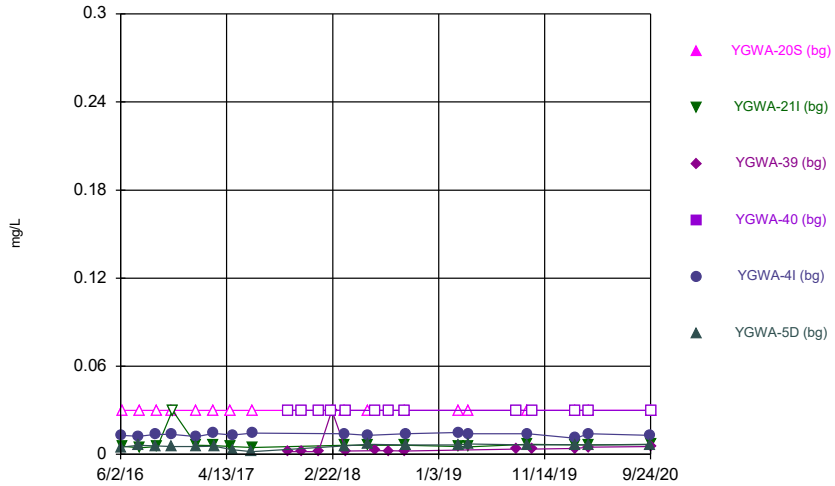
Time Series



Constituent: Lithium Analysis Run 12/1/2020 12:18 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

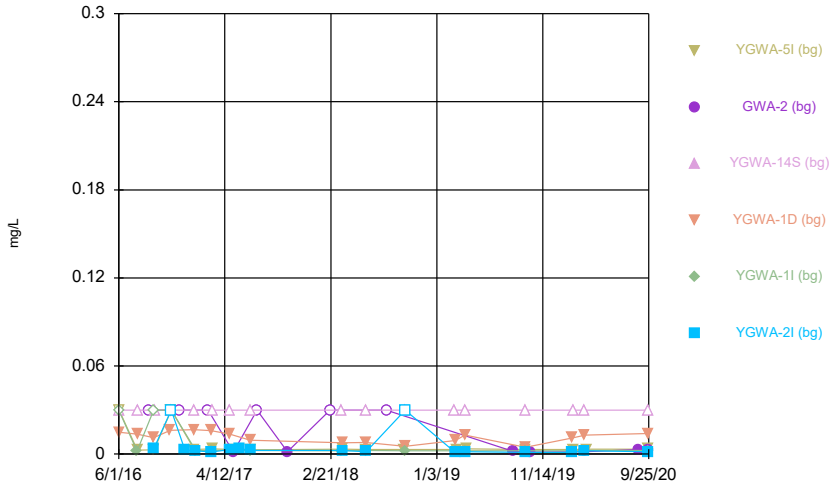
Time Series



Constituent: Lithium Analysis Run 12/1/2020 12:18 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Time Series



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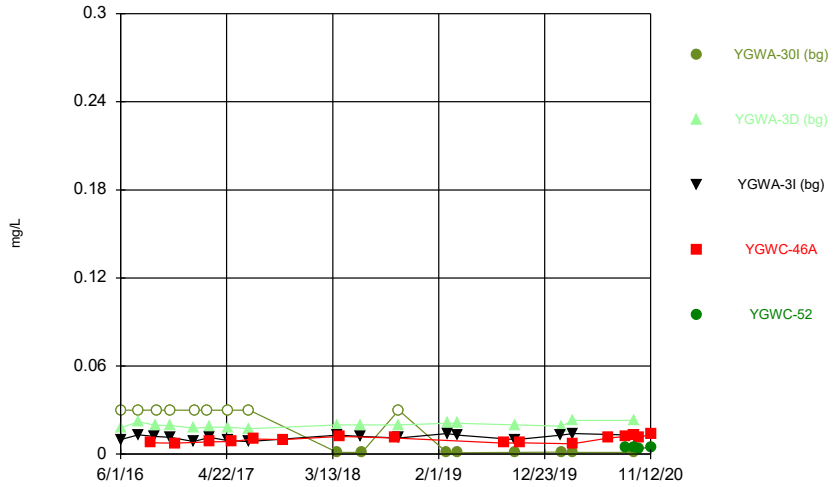
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

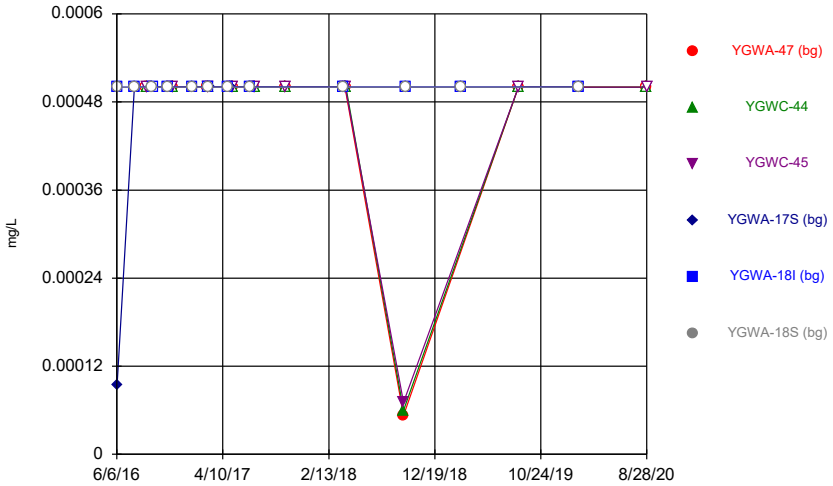
Time Series



Constituent: Lithium Analysis Run 12/1/2020 12:18 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

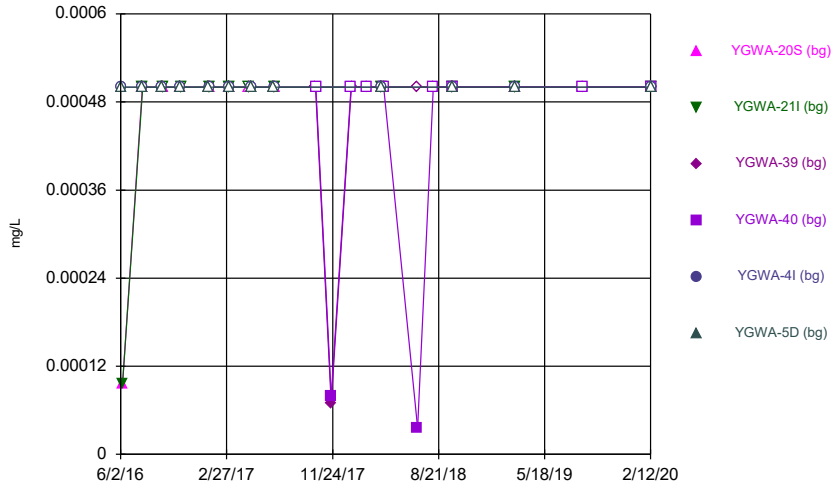
Time Series



Constituent: Mercury Analysis Run 12/1/2020 12:18 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

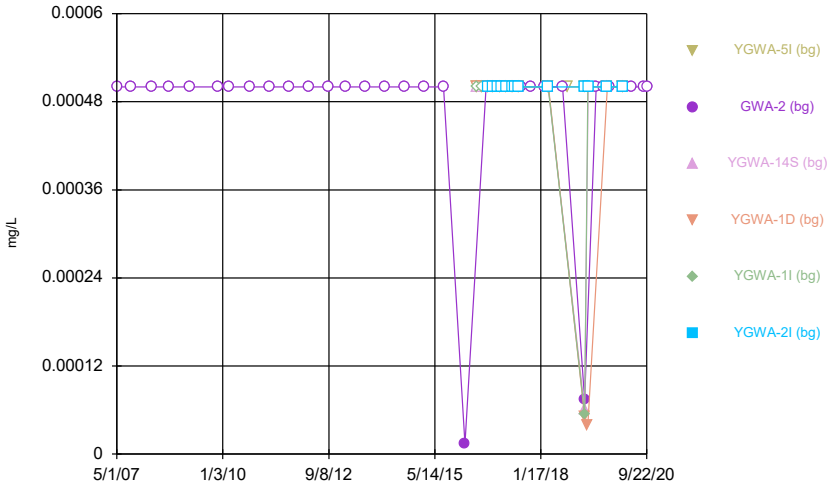
Time Series



Constituent: Mercury Analysis Run 12/1/2020 12:18 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

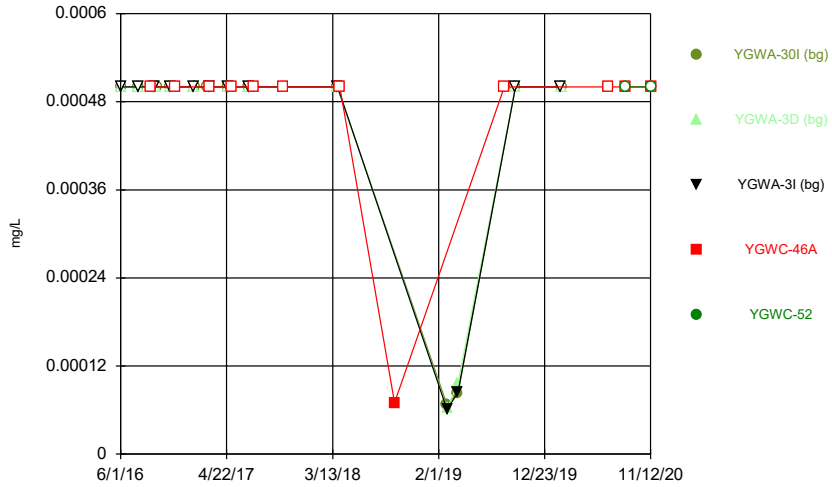
Time Series



Constituent: Mercury Analysis Run 12/1/2020 12:18 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

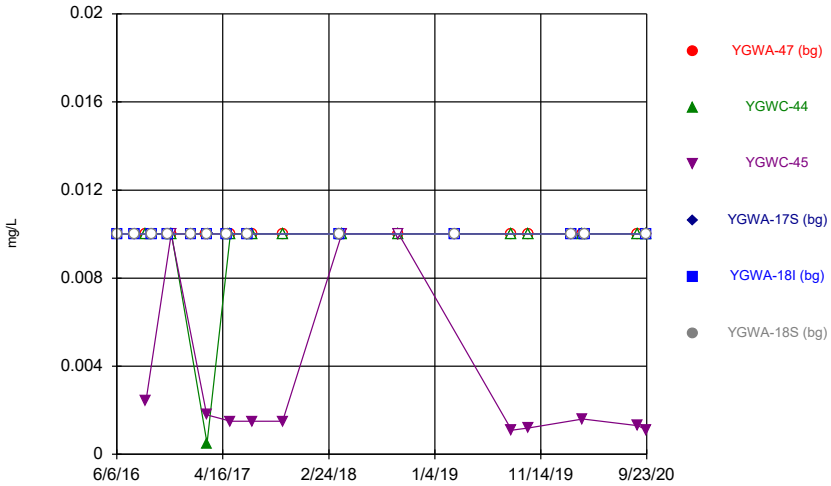
Time Series



Constituent: Mercury Analysis Run 12/1/2020 12:18 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

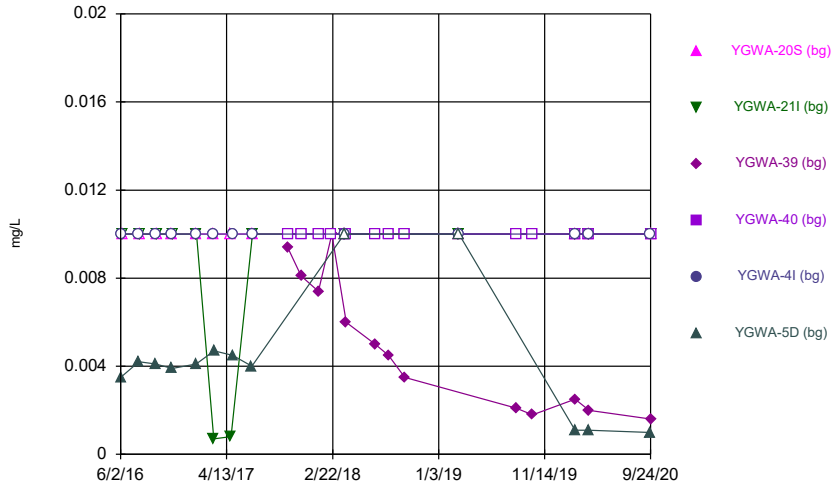
Time Series



Constituent: Molybdenum Analysis Run 12/1/2020 12:18 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

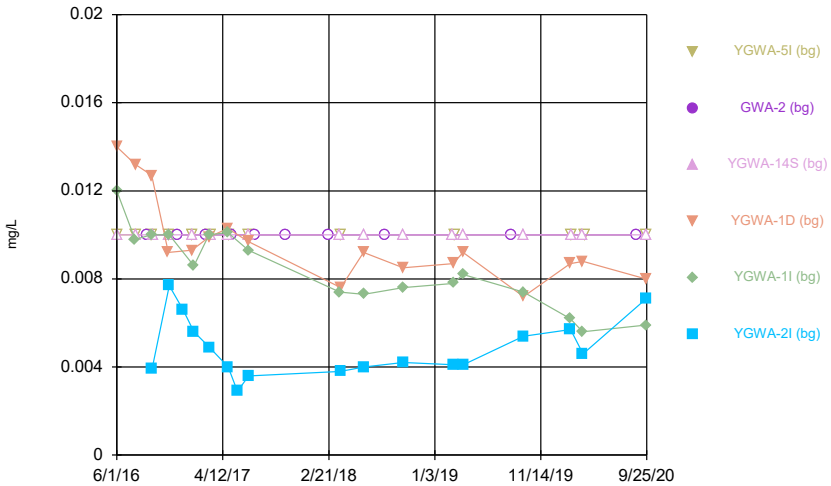
Time Series



Constituent: Molybdenum Analysis Run 12/1/2020 12:18 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

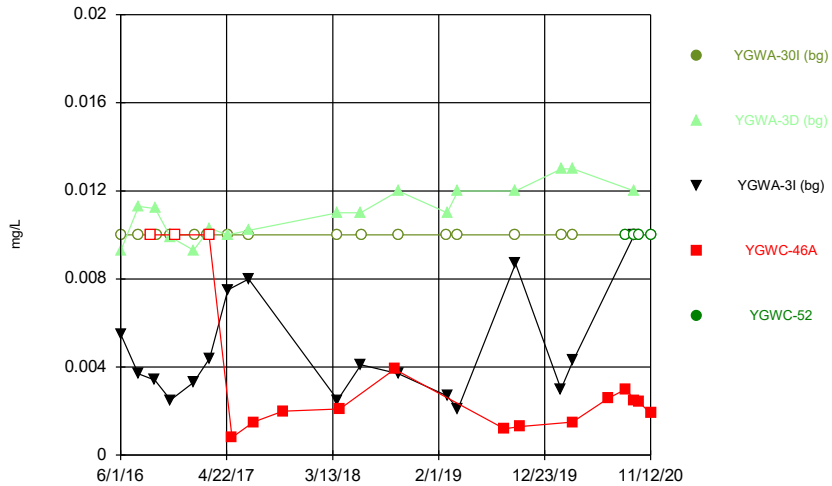
Time Series



Constituent: Molybdenum Analysis Run 12/1/2020 12:18 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1

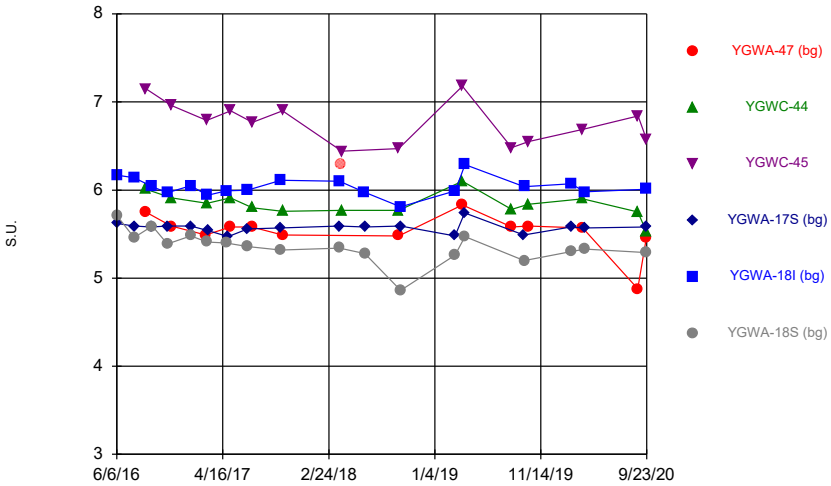
Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Time Series



Constituent: Molybdenum Analysis Run 12/1/2020 12:18 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1

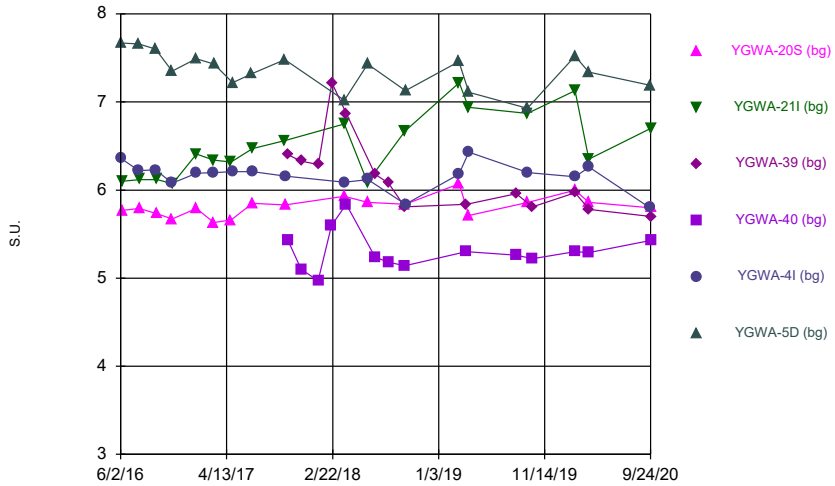
Time Series



Constituent: pH, Field Analysis Run 12/1/2020 12:18 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

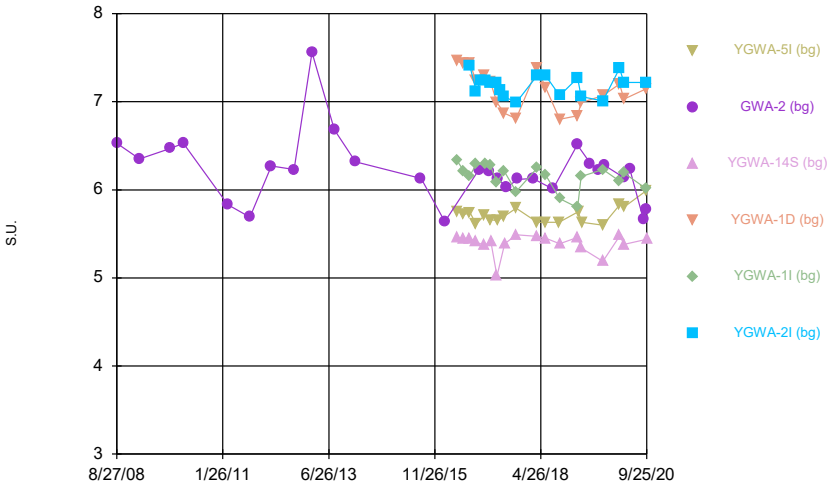
Time Series



Constituent: pH, Field Analysis Run 12/1/2020 12:18 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

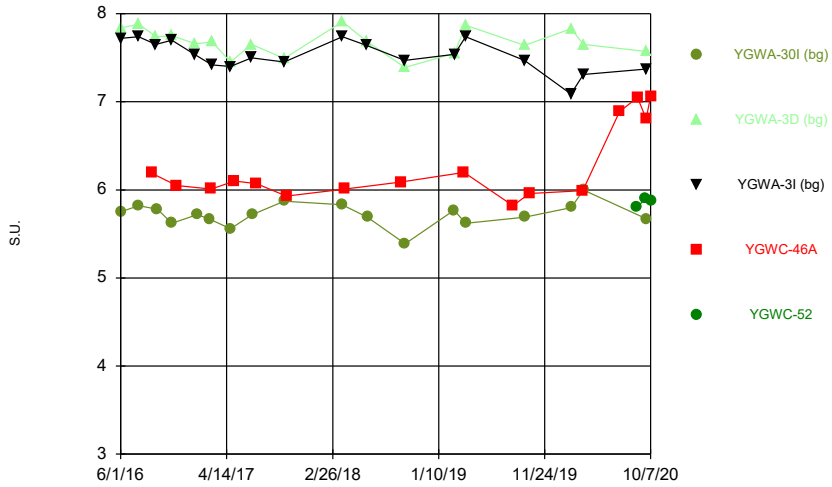
Time Series



Constituent: pH, Field Analysis Run 12/1/2020 12:18 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

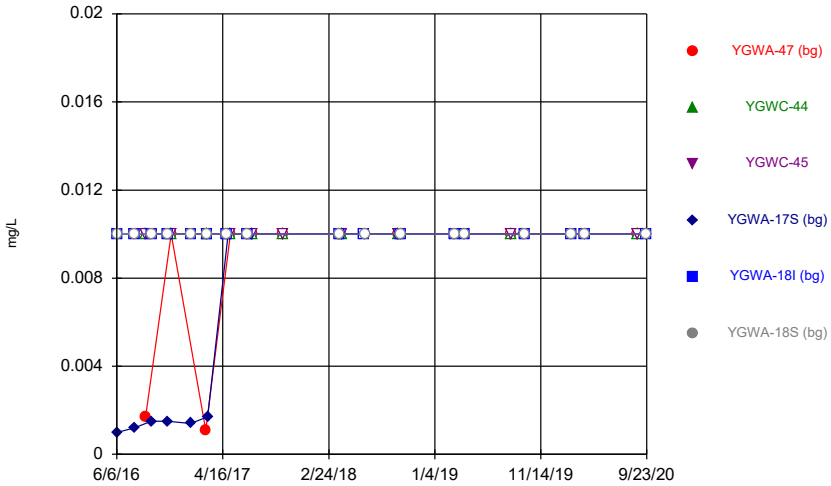
Time Series



Constituent: pH, Field Analysis Run 12/1/2020 12:18 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

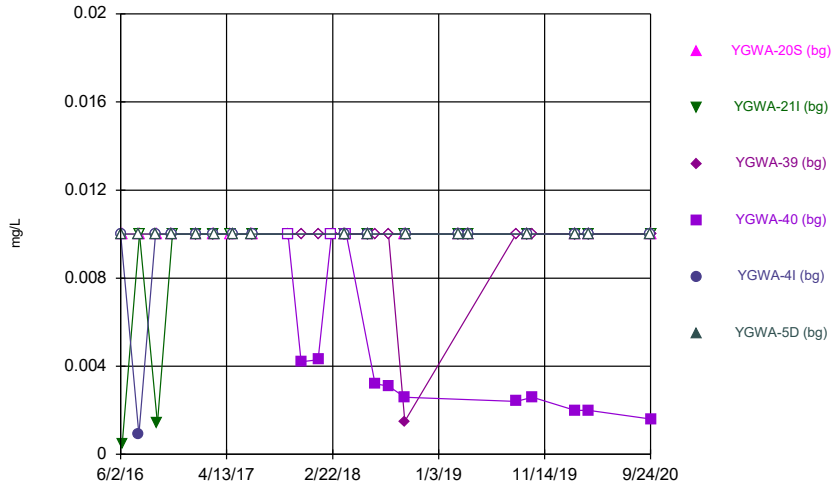
Time Series



Constituent: Selenium Analysis Run 12/1/2020 12:18 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

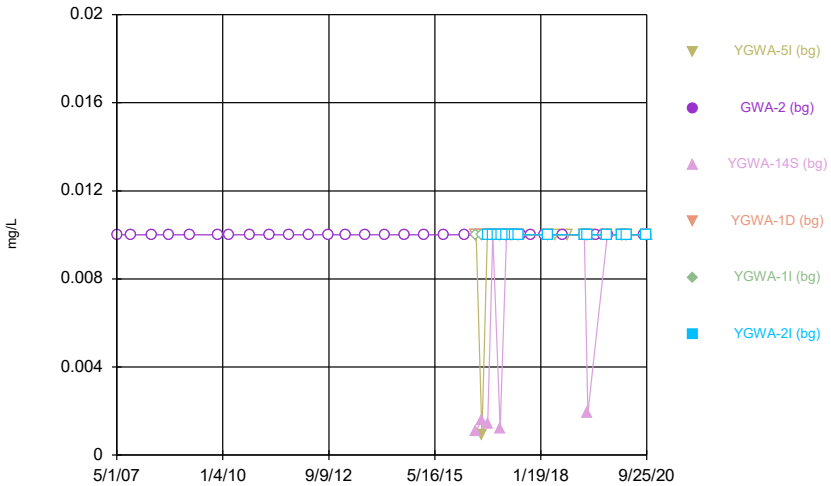
Time Series



Constituent: Selenium Analysis Run 12/1/2020 12:18 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

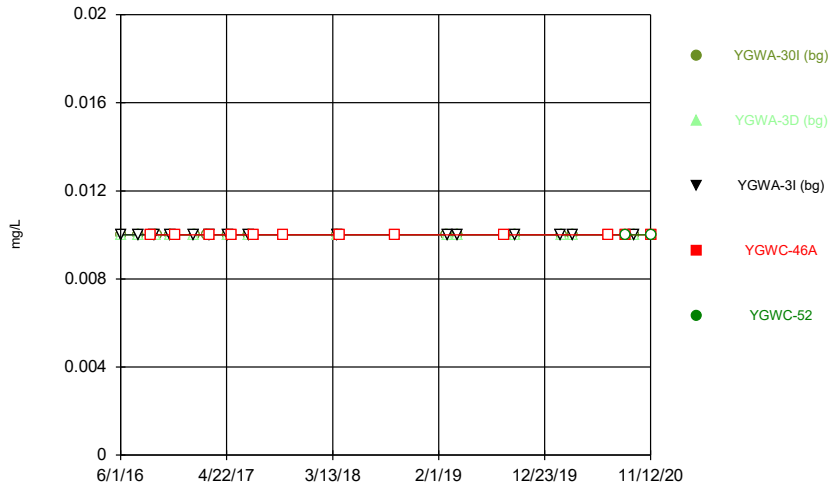
Time Series



Constituent: Selenium Analysis Run 12/1/2020 12:18 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

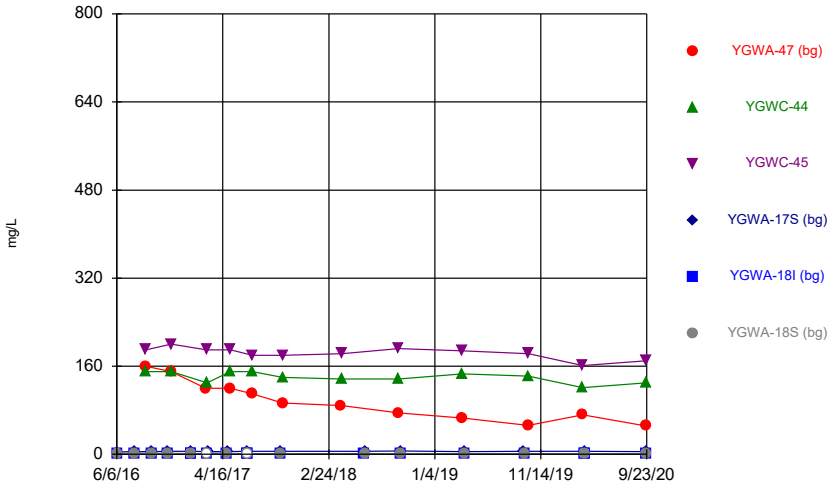
Time Series



Constituent: Selenium Analysis Run 12/1/2020 12:18 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

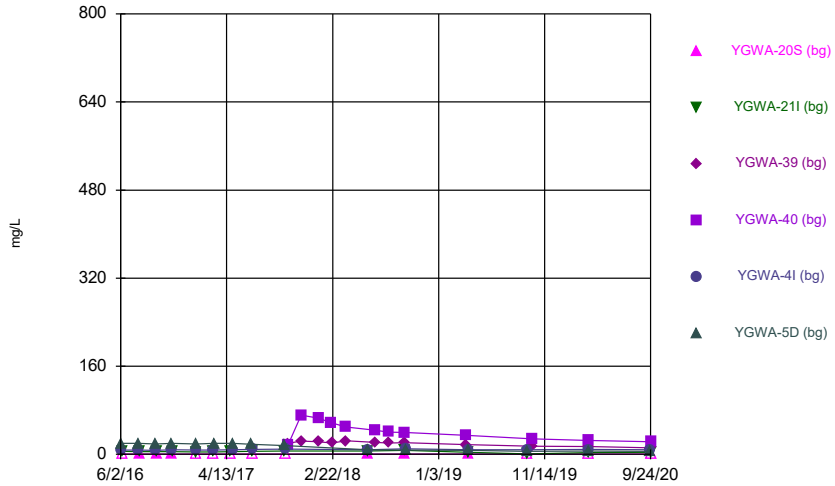
Time Series



Constituent: Sulfate as SO4 Analysis Run 12/1/2020 12:18 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

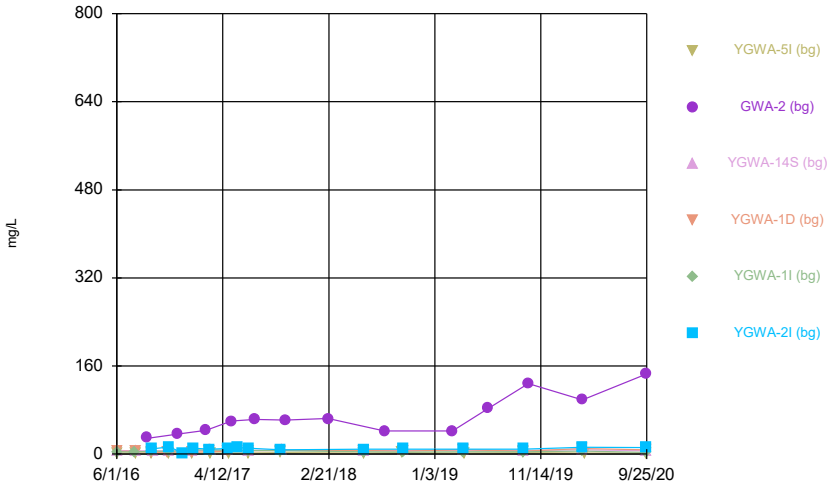
Time Series



Constituent: Sulfate as SO4 Analysis Run 12/1/2020 12:18 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

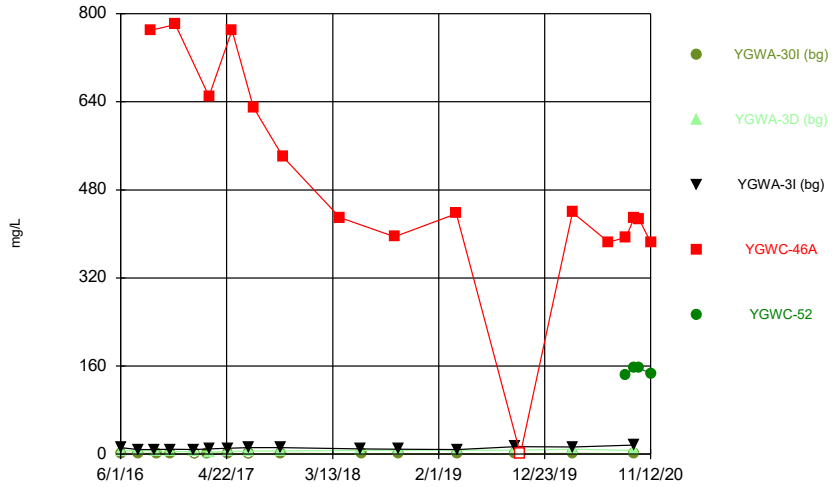
Time Series



Constituent: Sulfate as SO4 Analysis Run 12/1/2020 12:18 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

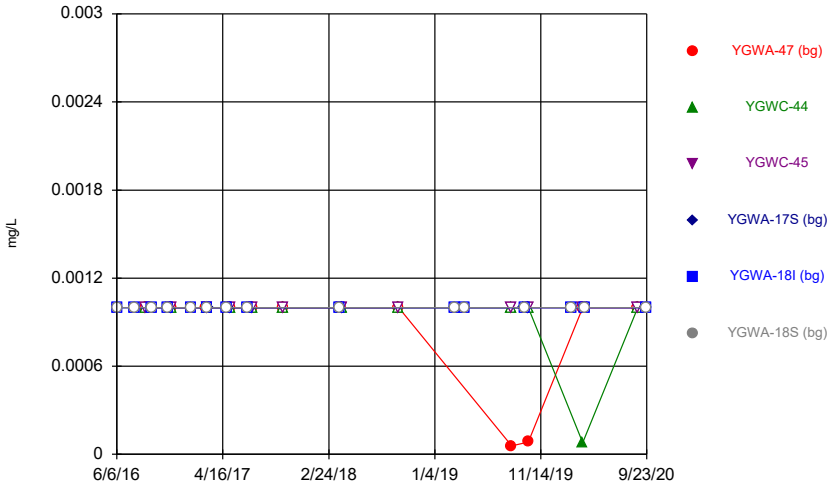
Time Series



Constituent: Sulfate as SO4 Analysis Run 12/1/2020 12:18 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

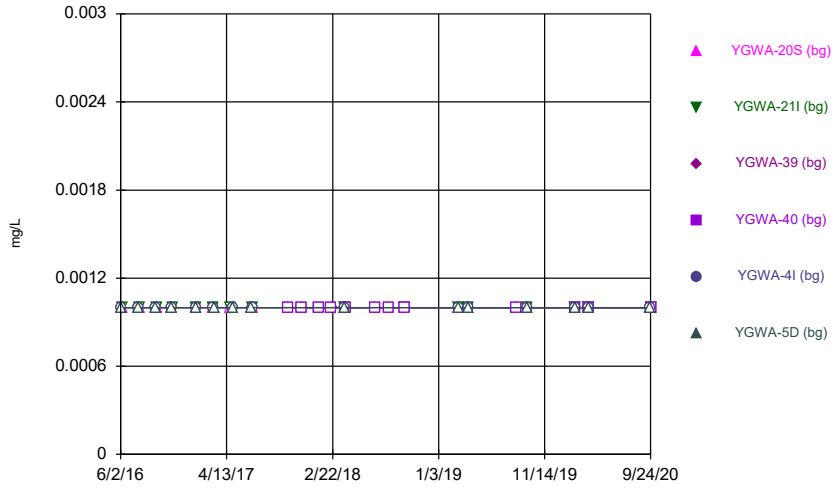
Time Series



Constituent: Thallium Analysis Run 12/1/2020 12:18 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

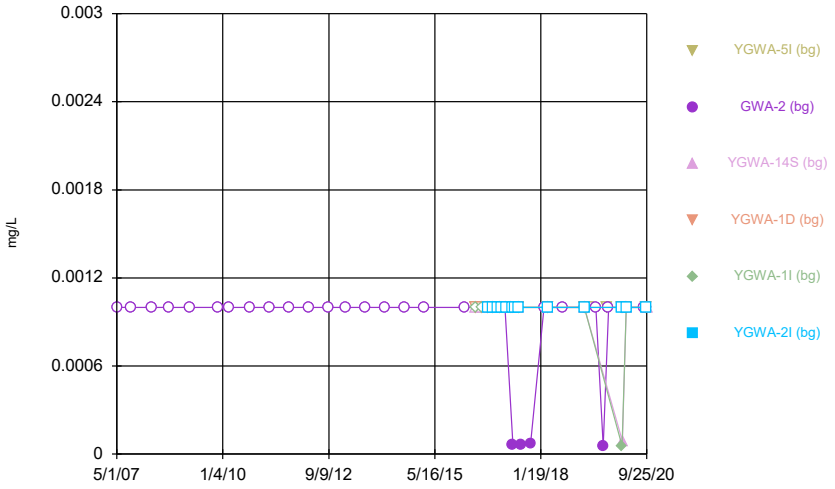
Time Series



Constituent: Thallium Analysis Run 12/1/2020 12:18 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

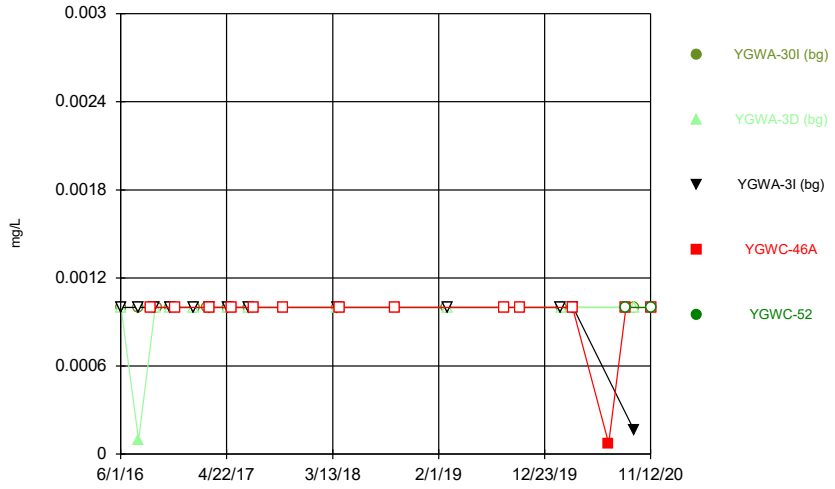
Time Series



Constituent: Thallium Analysis Run 12/1/2020 12:18 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

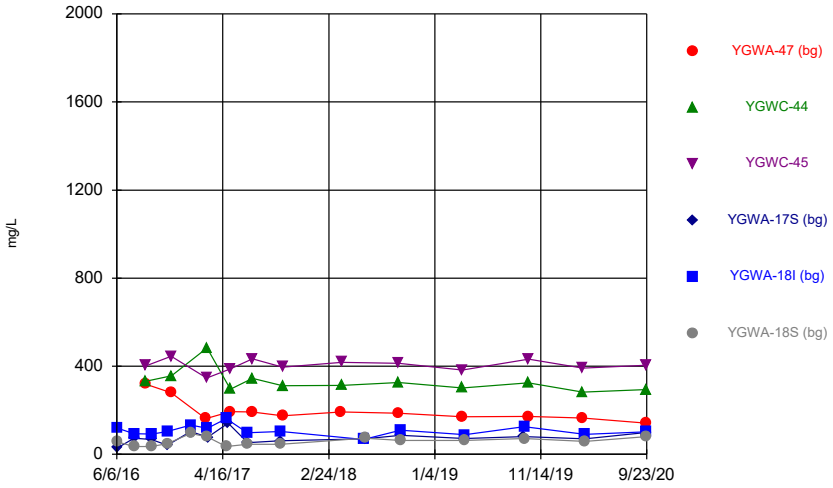
Time Series



Constituent: Thallium Analysis Run 12/1/2020 12:18 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Time Series

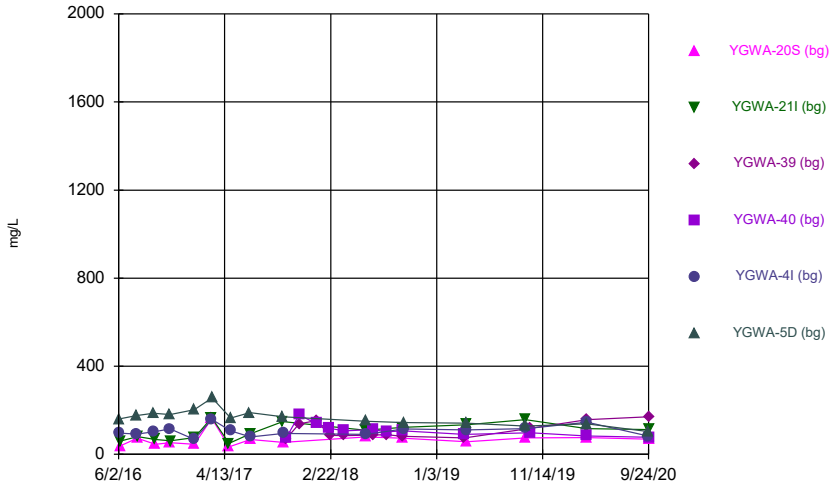


Constituent: Total Dissolved Solids [TDS] Analysis Run 12/1/2020 12:18 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Time Series

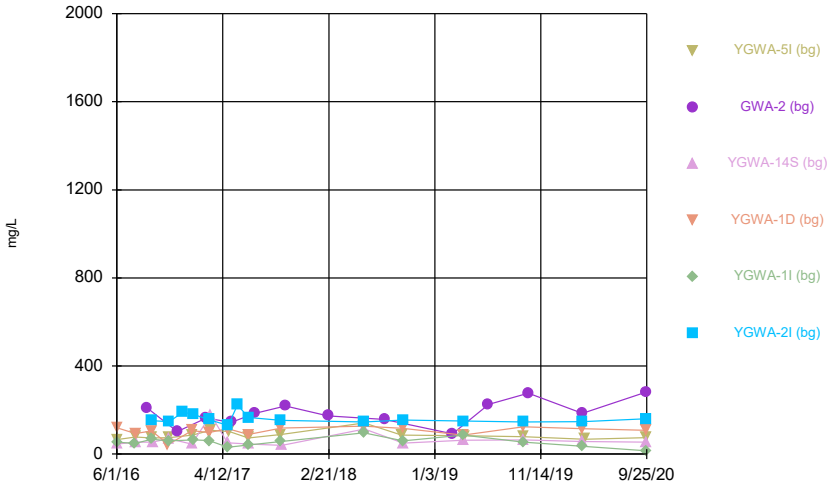


Constituent: Total Dissolved Solids [TDS] Analysis Run 12/1/2020 12:18 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Time Series

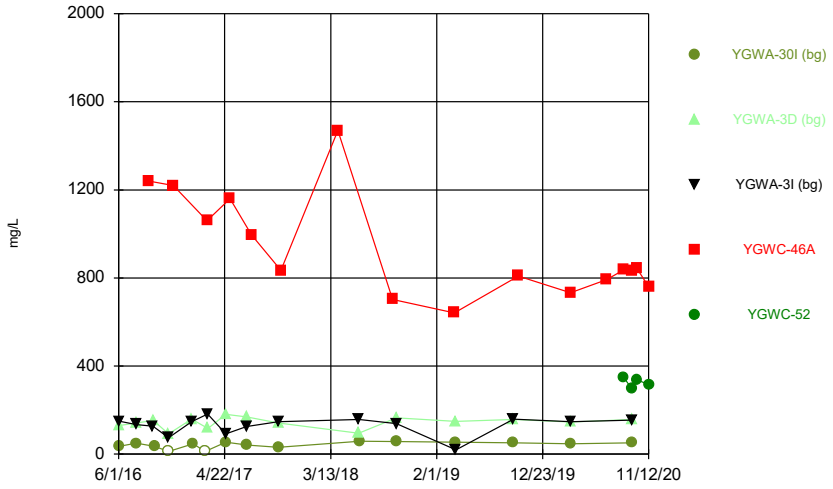


Constituent: Total Dissolved Solids [TDS] Analysis Run 12/1/2020 12:18 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Time Series



Constituent: Total Dissolved Solids [TDS] Analysis Run 12/1/2020 12:18 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

Time Series

Constituent: Antimony (mg/L) Analysis Run 12/1/2020 12:18 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-47 (bg)	YGWC-44	YGWC-45	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)
6/6/2016					<0.003	<0.003
6/7/2016				<0.003		
7/27/2016				<0.003	0.0005 (J)	<0.003
8/30/2016	0.0028 (J)					
8/31/2016		<0.003	<0.003			
9/16/2016				<0.003		<0.003
9/19/2016					<0.003	
11/3/2016				<0.003	<0.003	<0.003
11/14/2016	<0.003		<0.003			
11/15/2016		<0.003				
1/11/2017				<0.003	<0.003	<0.003
2/24/2017	<0.003					
2/27/2017			<0.003			
2/28/2017		<0.003				
3/1/2017					<0.003	<0.003
3/2/2017				<0.003		
4/26/2017					<0.003	<0.003
5/2/2017				<0.003		
5/8/2017	0.0004 (J)	<0.003				
5/9/2017			<0.003			
6/28/2017					<0.003	<0.003
6/29/2017				<0.003		
7/11/2017	0.0006 (J)					
7/13/2017		<0.003	<0.003			
10/10/2017	<0.003	<0.003	<0.003			
3/28/2018				<0.003	<0.003	<0.003
4/2/2018	<0.003					
4/3/2018			<0.003			
4/4/2018		<0.003				
9/19/2018	<0.003	<0.003	<0.003			
3/5/2019				<0.003		<0.003
3/6/2019					<0.003	
4/2/2019				<0.003		
4/3/2019					<0.003	<0.003
8/20/2019	<0.003	<0.003	<0.003			
9/25/2019				<0.003		
9/26/2019					0.00056 (J)	<0.003
2/11/2020				<0.003	<0.003	<0.003
3/24/2020				<0.003	<0.003	<0.003
8/27/2020	0.00048 (J)	<0.003				
8/28/2020			0.0017 (J)			
9/22/2020	<0.003	<0.003				
9/23/2020			<0.003	<0.003	<0.003	<0.003

Time Series

Constituent: Antimony (mg/L) Analysis Run 12/1/2020 12:18 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWA-4I (bg)	YGWA-5D (bg)
6/2/2016					<0.003	<0.003
6/7/2016	<0.003	<0.003				
7/26/2016					0.0003 (J)	<0.003
7/27/2016	<0.003					
7/28/2016		<0.003				
9/14/2016					<0.003	<0.003
9/19/2016	<0.003	0.001 (J)				
11/2/2016	<0.003				<0.003	<0.003
11/3/2016		<0.003				
1/12/2017						<0.003
1/13/2017	<0.003	<0.003			<0.003	
3/6/2017	<0.003	0.0005 (J)			<0.003	
3/7/2017						<0.003
4/26/2017	<0.003	<0.003				
5/1/2017					<0.003	<0.003
6/27/2017						<0.003
6/29/2017	<0.003	<0.003			<0.003	
10/11/2017			0.0006 (J)			
10/12/2017				<0.003		
11/20/2017			<0.003	<0.003		
1/10/2018				<0.003		
1/11/2018			<0.003			
2/19/2018				<0.003		
2/20/2018			<0.003			
3/29/2018	<0.003	<0.003			<0.003	<0.003
4/3/2018			<0.003	<0.003		
6/28/2018			<0.003	<0.003		
8/7/2018			<0.003	<0.003		
9/24/2018			<0.003	<0.003		
3/4/2019					<0.003	<0.003
3/5/2019	<0.003	0.0011 (J)				
4/2/2019		0.0011 (J)				
4/3/2019	<0.003				<0.003	<0.003
8/21/2019			<0.003	<0.003		
9/24/2019		0.0035				<0.003
9/25/2019	<0.003				<0.003	
2/12/2020	<0.003	0.0015 (J)	<0.003	<0.003	<0.003	<0.003
3/24/2020	<0.003	0.0017 (J)		<0.003		<0.003
3/25/2020			0.0014 (J)		<0.003	
9/22/2020					<0.003	<0.003
9/24/2020	<0.003	0.0047	<0.003	<0.003		

Time Series

Constituent: Antimony (mg/L) Analysis Run 12/1/2020 12:18 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-5I (bg)	GWA-2 (bg)	YGWA-14S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-2I (bg)
5/1/2007		<0.003				
9/11/2007		<0.003				
3/20/2008		<0.003				
8/27/2008		<0.003				
3/3/2009		<0.003				
11/18/2009		<0.003				
3/3/2010		<0.003				
9/8/2010		<0.003				
3/10/2011		<0.003				
9/8/2011		<0.003				
3/5/2012		<0.003				
9/10/2012		<0.003				
2/6/2013		<0.003				
8/12/2013		<0.003				
2/5/2014		<0.003				
8/5/2014		<0.003				
2/4/2015		<0.003				
8/3/2015		<0.003				
2/16/2016		<0.003				
6/1/2016				<0.003	<0.003	
6/2/2016	<0.003		<0.003			
7/25/2016					<0.003	
7/26/2016	<0.003		0.0005 (J)	0.001 (J)		
8/31/2016		<0.003				
9/13/2016				0.001 (J)	<0.003	
9/14/2016	<0.003					<0.003
9/15/2016			<0.003			
11/1/2016				0.0015 (J)		
11/2/2016			<0.003			
11/4/2016	<0.003				<0.003	<0.003
11/28/2016		0.0014 (J)				
12/15/2016						0.0012 (J)
1/10/2017			<0.003			
1/11/2017				<0.003		
1/12/2017	<0.003					
1/16/2017					<0.003	<0.003
2/22/2017		<0.003				
3/2/2017				0.0004 (J)	<0.003	
3/3/2017						<0.003
3/7/2017	<0.003					
3/8/2017			<0.003			
4/26/2017			<0.003			
4/27/2017				0.0004 (J)	0.0017 (J)	
4/28/2017						0.0015 (J)
5/2/2017	<0.003					
5/8/2017		<0.003				
5/26/2017						0.0005 (J)
6/27/2017	<0.003			<0.003	<0.003	
6/28/2017						<0.003
6/30/2017			<0.003			
7/17/2017		<0.003				
10/16/2017		<0.003				

Time Series

Constituent: Antimony (mg/L) Analysis Run 12/1/2020 12:18 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-5I (bg)	GWA-2 (bg)	YGWA-14S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-2I (bg)
2/19/2018		<0.003				
3/27/2018			<0.003		<0.003	
3/28/2018						<0.003
3/29/2018	<0.003			<0.003		
8/6/2018		<0.003				
2/25/2019		<0.003				
2/26/2019			<0.003			
2/27/2019				<0.003	<0.003	<0.003
3/4/2019	<0.003					
4/3/2019	<0.003					
6/12/2019		<0.003				
8/19/2019		<0.003				
9/24/2019	<0.003					
10/8/2019		<0.003				
2/10/2020				0.00088 (J)	<0.003	
2/11/2020						0.00036 (J)
2/12/2020	<0.003		<0.003			
3/17/2020		<0.003				
3/18/2020			<0.003		0.0004 (J)	
3/19/2020				<0.003		0.0003 (J)
3/24/2020	<0.003					
8/26/2020		0.00042 (J)				
9/22/2020	<0.003	0.00044 (J)				
9/23/2020				<0.003	<0.003	<0.003
9/25/2020			<0.003			

Time Series

Constituent: Antimony (mg/L) Analysis Run 12/1/2020 12:18 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-30I (bg)	YGWA-3D (bg)	YGWA-3I (bg)	YGWC-46A	YGWC-52
6/1/2016			<0.003		
6/2/2016	<0.003	<0.003			
7/25/2016	<0.003		<0.003		
7/26/2016		0.002 (J)			
9/1/2016				<0.003	
9/14/2016			<0.003		
9/15/2016		0.0027 (J)			
9/19/2016	<0.003				
11/1/2016	<0.003	<0.003	<0.003		
11/16/2016				<0.003	
1/11/2017		<0.003	<0.003		
1/16/2017	<0.003				
2/21/2017	<0.003				
2/27/2017				<0.003	
3/1/2017			<0.003		
3/2/2017		0.0008 (J)			
4/26/2017	<0.003	<0.003	<0.003		
5/8/2017				<0.003	
6/28/2017		<0.003	<0.003		
6/30/2017	<0.003				
7/13/2017				<0.003	
10/11/2017				<0.003	
3/27/2018	<0.003				
3/28/2018		<0.003	<0.003		
4/4/2018				<0.003	
9/19/2018				<0.003	
2/26/2019	<0.003				
2/27/2019		<0.003	<0.003		
8/21/2019				<0.003	
2/11/2020			<0.003		
2/12/2020	<0.003	<0.003			
3/19/2020	<0.003	0.00064 (J)	<0.003		
7/6/2020				<0.003	
8/27/2020					<0.003
8/28/2020				0.00029 (J)	
9/22/2020					<0.003
9/23/2020		<0.003	<0.003	<0.003	
9/24/2020	<0.003				
10/7/2020				<0.003	<0.003
11/12/2020				<0.003	<0.003

Time Series

Constituent: Arsenic (mg/L) Analysis Run 12/1/2020 12:18 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-47 (bg)	YGWC-44	YGWC-45	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)
6/6/2016					<0.005	<0.005
6/7/2016				<0.005		
7/27/2016				<0.005	<0.005	<0.005
8/30/2016	<0.005					
8/31/2016		<0.005	<0.005			
9/16/2016				<0.005		<0.005
9/19/2016					<0.005	
11/3/2016				<0.005	<0.005	<0.005
11/14/2016	<0.005		<0.005			
11/15/2016		<0.005				
1/11/2017				<0.005	<0.005	<0.005
2/24/2017	<0.005					
2/27/2017			<0.005			
2/28/2017		0.0005 (J)				
3/1/2017					<0.005	<0.005
3/2/2017				<0.005		
4/26/2017					<0.005	<0.005
5/2/2017				<0.005		
5/8/2017	<0.005	0.0006 (J)				
5/9/2017			<0.005			
6/28/2017					<0.005	<0.005
6/29/2017				<0.005		
7/11/2017	<0.005					
7/13/2017		<0.005	<0.005			
10/10/2017	0.0007 (J)	0.0007 (J)	0.0006 (J)			
3/28/2018				<0.005	<0.005	0.00061 (J)
4/2/2018	<0.005					
4/3/2018			0.00061 (J)			
4/4/2018		<0.005				
6/7/2018					0.00066 (J)	
6/11/2018				<0.005		<0.005
9/19/2018	0.00072 (J)	0.00086 (J)	0.00072 (J)			
9/25/2018				<0.005	<0.005	<0.005
3/5/2019				<0.005		<0.005
3/6/2019					<0.005	
4/2/2019				<0.005		
4/3/2019					<0.005	<0.005
8/20/2019	<0.005	0.00097 (J)	0.00078 (J)			
9/25/2019				<0.005		
9/26/2019					<0.005	<0.005
10/8/2019	<0.005	<0.005				
10/9/2019			<0.005			
2/11/2020				0.0022 (J)	0.0014 (J)	0.0026 (J)
3/17/2020	<0.005	<0.005	<0.005			
3/24/2020				<0.005	<0.005	<0.005
8/27/2020	<0.005	<0.005				
8/28/2020			<0.005			
9/22/2020	<0.005	<0.005				
9/23/2020			<0.005	<0.005	<0.005	<0.005

Time Series

Constituent: Arsenic (mg/L) Analysis Run 12/1/2020 12:18 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWA-4I (bg)	YGWA-5D (bg)
6/2/2016					<0.005	0.00071 (J)
6/7/2016	<0.005	<0.005				
7/26/2016					<0.005	0.001 (J)
7/27/2016	<0.005					
7/28/2016		<0.005				
9/14/2016					<0.005	<0.005
9/19/2016	<0.005	<0.005				
11/2/2016	<0.005				<0.005	<0.005
11/3/2016		<0.005				
1/12/2017						<0.005
1/13/2017	<0.005	<0.005			<0.005	
3/6/2017	<0.005	0.0017 (J)			<0.005	
3/7/2017						0.0012 (J)
4/26/2017	<0.005	<0.005				
5/1/2017					<0.005	<0.005
6/27/2017						0.0019 (J)
6/29/2017	<0.005	<0.005			<0.005	
10/11/2017			0.0009 (J)			
10/12/2017				<0.005		
11/20/2017			<0.005	<0.005		
1/10/2018				<0.005		
1/11/2018			<0.005			
2/19/2018				<0.005		
2/20/2018			<0.005			
3/29/2018	<0.005	0.0015 (J)			<0.005	0.0006 (J)
4/3/2018			<0.005	<0.005		
6/5/2018		0.0013 (J)				
6/6/2018	<0.005					0.0013 (J)
6/7/2018					0.00059 (J)	
6/28/2018			<0.005	<0.005		
8/7/2018			<0.005	<0.005		
9/24/2018			<0.005	<0.005		
9/25/2018	<0.005	0.0022 (J)				
9/26/2018					<0.005	0.0014 (J)
3/4/2019					<0.005	<0.005
3/5/2019	<0.005	0.0013 (J)				
4/2/2019		0.00096 (J)				
4/3/2019	<0.005				<0.005	<0.005
8/21/2019			0.00058 (J)	<0.005		
9/24/2019		0.0026 (J)				0.00043 (J)
9/25/2019	<0.005				<0.005	
10/9/2019			0.00063 (J)	<0.005		
2/12/2020	<0.005	0.0025 (J)	0.00058 (J)	0.0034 (J)	<0.005	0.0046 (J)
3/24/2020	<0.005	0.0013 (J)		<0.005		0.00065 (J)
3/25/2020			0.0012 (J)		<0.005	
9/22/2020					<0.005	0.001 (J)
9/24/2020	<0.005	0.0014 (J)	<0.005	<0.005		

Time Series

Constituent: Arsenic (mg/L) Analysis Run 12/1/2020 12:18 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-5I (bg)	GWA-2 (bg)	YGWA-14S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-2I (bg)
5/1/2007		<0.005				
9/11/2007		<0.005				
3/20/2008		<0.005				
8/27/2008		<0.005				
3/3/2009		<0.005				
11/18/2009		<0.005				
3/3/2010		<0.005				
9/8/2010		<0.005				
3/10/2011		<0.005				
9/8/2011		<0.005				
3/5/2012		<0.005				
9/10/2012		<0.005				
2/6/2013		<0.005				
8/12/2013		<0.005				
2/5/2014		<0.005				
8/5/2014		<0.005				
2/4/2015		<0.005				
8/3/2015		<0.005				
2/16/2016		<0.005				
6/1/2016				0.0021	<0.005	
6/2/2016	<0.005		<0.005			
7/25/2016					<0.005	
7/26/2016	<0.005		<0.005	0.0016 (J)		
8/31/2016		<0.005				
9/13/2016				<0.005	<0.005	
9/14/2016	<0.005					<0.005
9/15/2016			<0.005			
11/1/2016				<0.005		
11/2/2016			<0.005			
11/4/2016	<0.005				<0.005	0.0017 (J)
11/28/2016		<0.005				
12/15/2016						0.0023 (J)
1/10/2017			<0.005			
1/11/2017				0.0017 (J)		
1/12/2017	<0.005					
1/16/2017					<0.005	0.0018 (J)
2/22/2017		<0.005				
3/2/2017				0.0014 (J)	<0.005	
3/3/2017						0.0016 (J)
3/7/2017	<0.005					
3/8/2017			<0.005			
4/26/2017			<0.005			
4/27/2017				0.0018 (J)	<0.005	
4/28/2017						0.002 (J)
5/2/2017	<0.005					
5/8/2017		<0.005				
5/26/2017						0.0005 (J)
6/27/2017	<0.005			0.0018 (J)	<0.005	
6/28/2017						0.0016 (J)
6/30/2017			<0.005			
7/17/2017		<0.005				
10/16/2017		<0.005				

Time Series

Constituent: Arsenic (mg/L) Analysis Run 12/1/2020 12:18 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-5I (bg)	GWA-2 (bg)	YGWA-14S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-2I (bg)
2/19/2018		<0.005				
3/27/2018			<0.005		<0.005	
3/28/2018						0.0013 (J)
3/29/2018	<0.005			0.0017 (J)		
6/5/2018				0.0013 (J)		
6/6/2018					<0.005	
6/7/2018	<0.005					0.00082 (J)
6/8/2018			<0.005			
8/6/2018		<0.005				
9/26/2018	<0.005					
10/1/2018			<0.005	0.0016 (J)	<0.005	0.0011 (J)
2/25/2019		<0.005				
2/26/2019			<0.005			
2/27/2019				0.0015 (J)	<0.005	0.001 (J)
3/4/2019	<0.005					
3/28/2019				0.00072 (J)	<0.005	
3/29/2019			<0.005			0.00063 (J)
4/3/2019	<0.005					
6/12/2019		0.00038 (J)				
8/19/2019		0.00095 (J)				
9/24/2019	<0.005			0.0014 (J)	<0.005	<0.005
9/25/2019			<0.005			
10/8/2019		<0.005				
2/10/2020				0.0026 (J)	0.0005 (J)	
2/11/2020						0.0044 (J)
2/12/2020	0.002 (J)		<0.005			
3/17/2020		<0.005				
3/18/2020			<0.005		<0.005	
3/19/2020				0.00095 (J)		0.00066 (J)
3/24/2020	<0.005					
8/26/2020		<0.005				
9/22/2020	<0.005	<0.005				
9/23/2020				0.0011 (J)	<0.005	0.001 (J)
9/25/2020			<0.005			

Time Series

Constituent: Arsenic (mg/L) Analysis Run 12/1/2020 12:18 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-30I (bg)	YGWA-3D (bg)	YGWA-3I (bg)	YGWC-46A	YGWC-52
6/1/2016			<0.005		
6/2/2016	<0.005	<0.005			
7/25/2016	<0.005		<0.005		
7/26/2016		<0.005			
9/1/2016				<0.005	
9/14/2016			<0.005		
9/15/2016		<0.005			
9/19/2016	<0.005				
11/1/2016	<0.005	<0.005	<0.005		
11/16/2016				<0.005	
1/11/2017		<0.005	<0.005		
1/16/2017	<0.005				
2/21/2017	<0.005				
2/27/2017				<0.005	
3/1/2017			0.0004 (J)		
3/2/2017		<0.005			
4/26/2017	<0.005	<0.005	<0.005		
5/8/2017				0.0007 (J)	
6/28/2017		0.0007 (J)	0.0011 (J)		
6/30/2017	<0.005				
7/13/2017				0.0011 (J)	
10/11/2017				0.0011 (J)	
3/27/2018	<0.005				
3/28/2018		<0.005	<0.005		
4/4/2018				0.00087 (J)	
6/7/2018		<0.005			
6/8/2018			<0.005		
6/11/2018	<0.005				
9/19/2018				0.0012 (J)	
10/1/2018		<0.005	<0.005		
10/2/2018	<0.005				
2/26/2019	<0.005				
2/27/2019		<0.005	<0.005		
4/1/2019	<0.005	<0.005	<0.005		
8/21/2019				0.00074 (J)	
9/25/2019	<0.005	<0.005	<0.005		
10/9/2019				<0.005	
2/11/2020			0.0041 (J)		
2/12/2020	0.0032 (J)	0.0038 (J)			
3/17/2020				<0.005	
3/19/2020	<0.005	<0.005	<0.005		
7/6/2020				0.00079 (J)	
8/27/2020					<0.005
8/28/2020				0.0015 (J)	
9/22/2020					<0.005
9/23/2020		<0.005	<0.005	0.00091 (J)	
9/24/2020	<0.005				
10/7/2020				0.001 (J)	<0.005
11/12/2020				0.0014 (J)	<0.005

Time Series

Constituent: Barium (mg/L) Analysis Run 12/1/2020 12:18 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-47 (bg)	YGWC-44	YGWC-45	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)
6/6/2016					0.028	0.019
6/7/2016				0.012		
7/27/2016				0.0126	0.0294	0.0167
8/30/2016	0.0413					
8/31/2016		0.126	0.0754			
9/16/2016				0.0127		0.0168
9/19/2016					0.0247	
11/3/2016				0.0128	0.0248	0.0159
11/14/2016	0.0383		0.0701			
11/15/2016		0.115				
1/11/2017				0.0142	0.0266	0.0162
2/24/2017	0.0351					
2/27/2017			0.0834			
2/28/2017		0.121				
3/1/2017					0.0275	0.0195
3/2/2017				0.0155		
4/26/2017					0.024	0.0182
5/2/2017				0.0138		
5/8/2017	0.0251	0.125				
5/9/2017			0.0779			
6/28/2017					0.0237	0.018
6/29/2017				0.0128		
7/11/2017	0.0233					
7/13/2017		0.106	0.0719			
10/10/2017	0.0207	0.112	0.0708			
3/28/2018				0.014	0.024	0.021
4/2/2018	0.022					
4/3/2018			0.068			
4/4/2018		0.12				
6/7/2018					0.023	
6/11/2018				0.013		0.019
9/19/2018	0.023	0.11	0.064			
9/25/2018				0.014	0.023	0.019
3/5/2019				0.015		0.02
3/6/2019					0.024	
4/2/2019				0.016		
4/3/2019					0.025	0.017
8/20/2019	0.024	0.1	0.057			
9/25/2019				0.015		
9/26/2019					0.021	0.017
10/8/2019	0.025	0.098				
10/9/2019			0.058			
2/11/2020				0.015	0.022	0.019
3/17/2020	0.035	0.099	0.061			
3/24/2020				0.015	0.021	0.017
8/27/2020	0.027	0.086				
8/28/2020			0.053			
9/22/2020	0.026	0.096				
9/23/2020			0.052	0.015	0.021	0.016

Time Series

Constituent: Barium (mg/L) Analysis Run 12/1/2020 12:18 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWA-4I (bg)	YGWA-5D (bg)
6/2/2016					0.013	0.0084
6/7/2016	0.014	0.0058				
7/26/2016					0.0158	0.01
7/27/2016	0.0141					
7/28/2016		0.0068 (J)				
9/14/2016					0.0143	0.0085 (J)
9/19/2016	0.0155	0.0071 (J)				
11/2/2016	0.0157				0.0148	0.0091 (J)
11/3/2016		0.0092 (J)				
1/12/2017						0.0089 (J)
1/13/2017	0.0158	0.0105			0.0146	
3/6/2017	0.0163	0.0105			0.0141	
3/7/2017						0.009 (J)
4/26/2017	0.0177	0.011				
5/1/2017					0.0149	0.0083 (J)
6/27/2017						0.0074 (J)
6/29/2017	0.017	0.0109			0.0154	
10/11/2017			0.0092 (J)			
10/12/2017				0.0328		
11/20/2017			0.0081 (J)	0.0671		
1/10/2018				0.0656		
1/11/2018			0.0077 (J)			
2/19/2018				0.0598		
2/20/2018			<0.01			
3/29/2018	0.014	<0.01			0.014	<0.01
4/3/2018			<0.01	0.045		
6/5/2018		0.011				
6/6/2018	0.015					0.008 (J)
6/7/2018					0.014	
6/28/2018			0.0078 (J)	0.047		
8/7/2018			0.0078 (J)	0.048		
9/24/2018			0.0071 (J)	0.042		
9/25/2018	0.015	0.011				
9/26/2018					0.02	0.0075 (J)
3/4/2019					0.016	0.0077 (J)
3/5/2019	0.016	0.011				
4/2/2019		0.011				
4/3/2019	0.018				0.017	0.0087 (J)
8/21/2019			0.015	0.035		
9/24/2019		0.011				0.0075 (J)
9/25/2019	0.014				0.015	
10/9/2019			0.013	0.036		
2/12/2020	0.014	0.011	0.011	0.035	0.012	0.0079 (J)
3/24/2020	0.015	0.011		0.033		0.0076 (J)
3/25/2020			0.014		0.016	
9/22/2020					0.013	0.0076 (J)
9/24/2020	0.015	0.01	0.016	0.028		

Time Series

Constituent: Barium (mg/L) Analysis Run 12/1/2020 12:18 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-5I (bg)	GWA-2 (bg)	YGWA-14S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-2I (bg)
5/1/2007		0.032				
9/11/2007		0.017				
3/20/2008		0.025				
8/27/2008		0.041				
3/3/2009		0.053				
11/18/2009		0.05				
3/3/2010		0.061				
9/8/2010		0.071				
3/10/2011		0.057				
9/8/2011		0.057				
3/5/2012		0.061				
9/10/2012		0.055				
2/6/2013		0.061				
8/12/2013		0.055				
2/5/2014		0.063				
8/5/2014		0.038				
2/4/2015		0.039				
8/3/2015		0.031				
2/16/2016		0.045				
6/1/2016				0.008	0.012	
6/2/2016	0.019		0.0081			
7/25/2016					0.0091 (J)	
7/26/2016	0.0179		0.0082 (J)	0.006 (J)		
8/31/2016		0.0542				
9/13/2016				0.0084 (J)	0.008 (J)	
9/14/2016	0.0181					0.0037 (J)
9/15/2016			0.0087 (J)			
11/1/2016				0.0062 (J)		
11/2/2016			0.0082 (J)			
11/4/2016	0.0165				0.0067 (J)	0.0059 (J)
11/28/2016		0.0529				
12/15/2016						0.0056 (J)
1/10/2017			0.0086 (J)			
1/11/2017				0.0069 (J)		
1/12/2017	0.0199					
1/16/2017					0.0096 (J)	0.0049 (J)
2/22/2017		0.0607				
3/2/2017				0.0071 (J)	0.0112	
3/3/2017						0.0046 (J)
3/7/2017	0.0196					
3/8/2017			0.0088 (J)			
4/26/2017			0.0085 (J)			
4/27/2017				0.0064 (J)	0.0106	
4/28/2017						0.0039 (J)
5/2/2017	0.0202					
5/8/2017		0.065				
5/26/2017						0.0034 (J)
6/27/2017	0.0184			0.0054 (J)	0.0092 (J)	
6/28/2017						0.003 (J)
6/30/2017			0.0081 (J)			
7/17/2017		0.06				
10/16/2017		0.0542				

Time Series

Constituent: Barium (mg/L) Analysis Run 12/1/2020 12:18 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-5I (bg)	GWA-2 (bg)	YGWA-14S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-2I (bg)
2/19/2018		0.0533				
3/27/2018			<0.01		<0.01	
3/28/2018						<0.01
3/29/2018	0.021			<0.01		
6/5/2018				0.0069 (J)		
6/6/2018					0.0082 (J)	
6/7/2018	0.019					0.0037 (J)
6/8/2018			0.007 (J)			
8/6/2018		0.044				
9/26/2018	0.019					
10/1/2018			0.007 (J)	0.0062 (J)	0.0084 (J)	0.0038 (J)
2/25/2019		0.045				
2/26/2019			0.0067 (J)			
2/27/2019				0.0074 (J)	0.008 (J)	0.0035 (J)
3/4/2019	0.019					
3/28/2019				0.0082 (J)	0.0082 (J)	
3/29/2019			0.0066 (J)			0.0039 (J)
4/3/2019	0.023					
6/12/2019		0.063				
8/19/2019		0.065				
9/24/2019	0.019			0.0072 (J)	0.0086 (J)	0.0038 (J)
9/25/2019			0.0071 (J)			
10/8/2019		0.058				
2/10/2020				0.0066 (J)	0.0091 (J)	
2/11/2020						0.0036 (J)
2/12/2020	0.021		0.007 (J)			
3/17/2020		0.047				
3/18/2020			0.0076 (J)		0.0084 (J)	
3/19/2020				0.0076 (J)		0.0036 (J)
3/24/2020	0.021					
8/26/2020		0.044				
9/22/2020	0.019	0.045				
9/23/2020				0.0068 (J)	0.0079 (J)	0.0039 (J)
9/25/2020			0.0073 (J)			

Time Series

Constituent: Barium (mg/L) Analysis Run 12/1/2020 12:18 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-30I (bg)	YGWA-3D (bg)	YGWA-3I (bg)	YGWC-46A	YGWC-52
6/1/2016			0.0038		
6/2/2016	0.0064	0.01			
7/25/2016	0.0071 (J)		0.0031 (J)		
7/26/2016		0.0088 (J)			
9/1/2016				0.0414	
9/14/2016			0.0027 (J)		
9/15/2016		0.009 (J)			
9/19/2016	0.0069 (J)				
11/1/2016	0.007 (J)	0.0079 (J)	0.0027 (J)		
11/16/2016				0.0365	
1/11/2017		0.0075 (J)	0.0036 (J)		
1/16/2017	0.0071 (J)				
2/21/2017	0.0077 (J)				
2/27/2017				0.0326	
3/1/2017			0.0036 (J)		
3/2/2017		0.009 (J)			
4/26/2017	0.0074 (J)	0.0078 (J)	0.0038 (J)		
5/8/2017				0.0332	
6/28/2017		0.0071 (J)	0.004 (J)		
6/30/2017	0.0076 (J)				
7/13/2017				0.0365	
10/11/2017				0.0288	
3/27/2018	<0.01				
3/28/2018		<0.01	<0.01		
4/4/2018				0.025	
6/7/2018		0.0068 (J)			
6/8/2018			0.0034 (J)		
6/11/2018	0.007 (J)				
9/19/2018				0.03	
10/1/2018		0.0065 (J)	0.0034 (J)		
10/2/2018	0.0069 (J)				
2/26/2019	0.007 (J)				
2/27/2019		0.0059 (J)	0.0034 (J)		
4/1/2019	0.0072 (J)	0.0064 (J)	0.003 (J)		
8/21/2019				0.023	
9/25/2019	0.0066 (J)	0.0059 (J)	0.005 (J)		
10/9/2019				0.024	
2/11/2020			0.0031 (J)		
2/12/2020	0.0073 (J)	0.0062 (J)			
3/17/2020				0.022	
3/19/2020	0.0074 (J)	0.0072 (J)	0.0029 (J)		
7/6/2020				0.048	
8/27/2020					0.021
8/28/2020				0.05	
9/22/2020					0.021
9/23/2020		0.0051 (J)	0.0039 (J)	0.045	
9/24/2020	0.0062 (J)				
10/7/2020				0.042	0.019
11/12/2020				0.042	0.019

Time Series

Constituent: Beryllium (mg/L) Analysis Run 12/1/2020 12:18 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-47 (bg)	YGWC-44	YGWC-45	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)
6/6/2016					<0.003	<0.003
6/7/2016				<0.003		
7/27/2016				<0.003	<0.003	<0.003
8/30/2016	<0.003					
8/31/2016		<0.003	<0.003			
9/16/2016				<0.003		<0.003
9/19/2016					<0.003	
11/3/2016				<0.003	<0.003	<0.003
11/14/2016	<0.003		<0.003			
11/15/2016		<0.003				
1/11/2017				<0.003	<0.003	<0.003
2/24/2017	<0.003					
2/27/2017			<0.003			
2/28/2017		<0.003				
3/1/2017					<0.003	<0.003
3/2/2017				8E-05 (J)		
4/26/2017					<0.003	<0.003
5/2/2017				<0.003		
5/8/2017	7E-05 (J)	<0.003				
5/9/2017			<0.003			
6/28/2017					<0.003	<0.003
6/29/2017				<0.003		
7/11/2017	<0.003					
7/13/2017		<0.003	<0.003			
10/10/2017	<0.003	<0.003	<0.003			
3/28/2018				<0.003	<0.003	<0.003
4/2/2018	<0.003					
4/3/2018			<0.003			
4/4/2018		<0.003				
6/7/2018					<0.003	
6/11/2018				9E-05 (J)		5.7E-05 (J)
9/19/2018	5.7E-05 (J)	<0.003	<0.003			
9/25/2018				8.9E-05 (J)	<0.003	8.2E-05 (J)
3/5/2019				9.1E-05 (J)		7.9E-05 (J)
3/6/2019					<0.003	
4/2/2019				9E-05 (J)		
4/3/2019					<0.003	7.5E-05 (J)
8/20/2019	<0.003	<0.003	<0.003			
9/25/2019				8.1E-05 (J)		
9/26/2019					<0.003	8.4E-05 (J)
2/11/2020				7.8E-05 (J)	<0.003	7.6E-05 (J)
3/24/2020				8E-05 (J)	<0.003	8.9E-05 (J)
8/27/2020	4.7E-05 (J)	<0.003				
8/28/2020			<0.003			
9/22/2020	<0.003	<0.003				
9/23/2020			<0.003	8.1E-05 (J)	<0.003	8.8E-05 (J)

Time Series

Constituent: Beryllium (mg/L) Analysis Run 12/1/2020 12:18 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWA-4I (bg)	YGWA-5D (bg)
6/2/2016					<0.003	<0.003
6/7/2016	<0.003	<0.003				
7/26/2016					<0.003	<0.003
7/27/2016	<0.003					
7/28/2016		<0.003				
9/14/2016					<0.003	<0.003
9/19/2016	<0.003	<0.003				
11/2/2016	<0.003				<0.003	<0.003
11/3/2016		<0.003				
1/12/2017						<0.003
1/13/2017	<0.003	<0.003			<0.003	
3/6/2017	<0.003	<0.003			<0.003	
3/7/2017						<0.003
4/26/2017	<0.003	<0.003				
5/1/2017					<0.003	<0.003
6/27/2017						<0.003
6/29/2017	<0.003	<0.003			<0.003	
10/11/2017			<0.003			
10/12/2017				0.0002 (J)		
11/20/2017			<0.003	0.0003 (J)		
1/10/2018				0.0003 (J)		
1/11/2018			<0.003			
2/19/2018				<0.003		
2/20/2018			<0.003			
3/29/2018	<0.003	<0.003			<0.003	<0.003
4/3/2018			<0.003	<0.003		
6/5/2018		<0.003				
6/6/2018	8E-05 (J)					<0.003
6/7/2018					<0.003	
6/28/2018			<0.003	0.00029 (J)		
8/7/2018			<0.003	0.00024 (J)		
9/24/2018			<0.003	0.00019 (J)		
9/25/2018	6.1E-05 (J)	<0.003				
9/26/2018					<0.003	<0.003
3/4/2019					<0.003	<0.003
3/5/2019	0.00011 (J)	<0.003				
4/2/2019		<0.003				
4/3/2019	6.4E-05 (J)				<0.003	<0.003
8/21/2019			<0.003	0.0002 (J)		
9/24/2019		<0.003				<0.003
9/25/2019	<0.003				<0.003	
10/9/2019			<0.003	0.0002 (J)		
2/12/2020	7.8E-05 (J)	<0.003	<0.003	0.00018 (J)	<0.003	<0.003
3/24/2020	7.6E-05 (J)	<0.003		0.00022 (J)		<0.003
3/25/2020			<0.003		<0.003	
9/22/2020					<0.003	<0.003
9/24/2020	8.3E-05 (J)	<0.003	<0.003	0.0002 (J)		

Time Series

Constituent: Beryllium (mg/L) Analysis Run 12/1/2020 12:18 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-5I (bg)	GWA-2 (bg)	YGWA-14S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-2I (bg)
5/1/2007		<0.003				
9/11/2007		<0.003				
3/20/2008		<0.003				
8/27/2008		<0.003				
3/3/2009		<0.003				
11/18/2009		<0.003				
3/3/2010		<0.003				
9/8/2010		<0.003				
3/10/2011		<0.003				
9/8/2011		<0.003				
3/5/2012		<0.003				
9/10/2012		<0.003				
2/6/2013		<0.003				
8/12/2013		<0.003				
2/5/2014		<0.003				
8/5/2014		<0.003				
2/4/2015		<0.003				
8/3/2015		<0.003				
2/16/2016		<0.003				
6/1/2016				<0.003	<0.003	
6/2/2016	<0.003		<0.003			
7/25/2016					<0.003	
7/26/2016	<0.003		0.0002 (J)	<0.003		
8/31/2016		<0.003				
9/13/2016				<0.003	<0.003	
9/14/2016	<0.003					<0.003
9/15/2016			0.0002 (J)			
11/1/2016				<0.003		
11/2/2016			0.0002 (J)			
11/4/2016	<0.003				<0.003	<0.003
11/28/2016		<0.003				
12/15/2016						<0.003
1/10/2017			0.0002 (J)			
1/11/2017				<0.003		
1/12/2017	<0.003					
1/16/2017					<0.003	<0.003
2/22/2017		<0.003				
3/2/2017				<0.003	<0.003	
3/3/2017						<0.003
3/7/2017	<0.003					
3/8/2017			0.0002 (J)			
4/26/2017			0.0002 (J)			
4/27/2017				<0.003	<0.003	
4/28/2017						<0.003
5/2/2017	<0.003					
5/8/2017		<0.003				
5/26/2017						<0.003
6/27/2017	<0.003			<0.003	<0.003	
6/28/2017						<0.003
6/30/2017			0.0002 (J)			
7/17/2017		<0.003				
10/16/2017		<0.003				

Time Series

Constituent: Beryllium (mg/L) Analysis Run 12/1/2020 12:18 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-5I (bg)	GWA-2 (bg)	YGWA-14S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-2I (bg)
2/19/2018		<0.003				
3/27/2018			<0.003		<0.003	
3/28/2018						<0.003
3/29/2018	<0.003			<0.003		
6/7/2018	<0.003					
8/6/2018		<0.003				
9/26/2018	<0.003					
2/25/2019		<0.003				
2/26/2019			0.00016 (J)			
2/27/2019				<0.003	<0.003	<0.003
3/4/2019	<0.003					
3/28/2019				<0.003	<0.003	
3/29/2019			0.00017 (J)			<0.003
4/3/2019	<0.003					
6/12/2019		<0.003				
8/19/2019		<0.003				
9/24/2019	<0.003			<0.003	<0.003	<0.003
9/25/2019			0.00018 (J)			
10/8/2019		<0.003				
2/10/2020				<0.003	<0.003	
2/11/2020						<0.003
2/12/2020	<0.003		0.00019 (J)			
3/17/2020		<0.003				
3/18/2020			0.00021 (J)		<0.003	
3/19/2020				<0.003		<0.003
3/24/2020	<0.003					
8/26/2020		<0.003				
9/22/2020	<0.003	<0.003				
9/23/2020				<0.003	<0.003	<0.003
9/25/2020			0.00018 (J)			

Time Series

Constituent: Beryllium (mg/L) Analysis Run 12/1/2020 12:18 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-30I (bg)	YGWA-3D (bg)	YGWA-3I (bg)	YGWC-46A	YGWC-52
6/1/2016			<0.003		
6/2/2016	<0.003	<0.003			
7/25/2016	<0.003		<0.003		
7/26/2016		<0.003			
9/1/2016				<0.003	
9/14/2016			<0.003		
9/15/2016		<0.003			
9/19/2016	<0.003				
11/1/2016	<0.003	<0.003	<0.003		
11/16/2016				<0.003	
1/11/2017		<0.003	<0.003		
1/16/2017	<0.003				
2/21/2017	<0.003				
2/27/2017				<0.003	
3/1/2017			<0.003		
3/2/2017		<0.003			
4/26/2017	<0.003	<0.003	<0.003		
5/8/2017				<0.003	
6/28/2017		<0.003	<0.003		
6/30/2017	<0.003				
7/13/2017				<0.003	
10/11/2017				<0.003	
3/27/2018	<0.003				
3/28/2018		<0.003	<0.003		
4/4/2018				<0.003	
9/19/2018				<0.003	
2/26/2019	7.2E-05 (J)				
2/27/2019		<0.003	<0.003		
4/1/2019	<0.003	<0.003	<0.003		
8/21/2019				<0.003	
9/25/2019	<0.003	<0.003	<0.003		
2/11/2020			<0.003		
2/12/2020	<0.003	<0.003			
3/19/2020	<0.003	<0.003	<0.003		
7/6/2020				<0.003	
8/27/2020					<0.003
8/28/2020				<0.003	
9/22/2020					<0.003
9/23/2020		<0.003	5.9E-05 (J)	<0.003	
9/24/2020	<0.003				
10/7/2020				<0.003	<0.003
11/12/2020				<0.003	<0.003

Time Series

Constituent: Boron, total (mg/L) Analysis Run 12/1/2020 12:18 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-47 (bg)	YGWC-44	YGWC-45	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)
6/6/2016					<0.1	<0.1
6/7/2016				<0.1		
7/27/2016				0.008 (J)	<0.1	0.0059 (J)
8/30/2016	0.0166 (J)					
8/31/2016		0.541	0.308			
9/16/2016				0.0086 (J)		0.0079 (J)
9/19/2016					<0.1	
11/3/2016				0.0077 (J)	<0.1	0.0082 (J)
11/14/2016	0.0166 (J)		0.368			
11/15/2016		0.706				
1/11/2017				0.0092 (J)	<0.1	0.0096 (J)
2/24/2017	0.0145 (J)					
2/27/2017			0.321			
2/28/2017		0.623				
3/1/2017					<0.1	<0.1
3/2/2017				0.0095 (J)		
4/26/2017					<0.1	0.0091 (J)
5/2/2017				<0.1		
5/8/2017	0.0141 (J)	0.69				
5/9/2017			0.338			
6/28/2017					<0.1	0.0079 (J)
6/29/2017				0.0074 (J)		
7/11/2017	0.0131 (J)					
7/13/2017		0.649	0.34			
10/4/2017				0.0077 (J)		0.009 (J)
10/5/2017					<0.1	
10/10/2017	0.0124 (J)	0.603	0.319			
4/2/2018	0.013 (J)					
4/3/2018			0.35			
4/4/2018		0.66				
6/7/2018					<0.1	
6/11/2018				0.01 (J)		0.0093 (J)
9/19/2018	0.012 (J)	0.66	0.35			
9/25/2018				0.0096 (J)	0.0046 (J)	0.007 (J)
3/27/2019	0.013 (J)	0.57	0.33			
4/2/2019				0.0066 (J)		
4/3/2019					<0.1	0.0053 (J)
9/25/2019				0.0081 (J)		
9/26/2019					0.0062 (J)	0.0072 (J)
10/8/2019	0.012 (J)	0.58				
10/9/2019			0.35			
3/17/2020	0.023 (J)	0.61	0.37			
3/24/2020				0.0092 (J)	0.0054 (J)	0.01 (J)
9/22/2020	0.0076 (J)	0.59				
9/23/2020			0.32	0.0066 (J)	0.021 (J)	0.006 (J)

Time Series

Constituent: Boron, total (mg/L) Analysis Run 12/1/2020 12:18 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWA-4I (bg)	YGWA-5D (bg)
6/2/2016					<0.1	<0.1
6/7/2016	<0.1	<0.1				
7/26/2016					0.0047 (J)	0.0052 (J)
7/27/2016	<0.1					
7/28/2016		<0.1				
9/14/2016					<0.1	0.0071 (J)
9/19/2016	<0.1	<0.1				
11/2/2016	<0.1				<0.1	<0.1
11/3/2016		<0.1				
1/12/2017						0.0076 (J)
1/13/2017	<0.1	<0.1			<0.1	
3/6/2017	<0.1	<0.1			<0.1	
3/7/2017						0.0089 (J)
4/26/2017	<0.1	<0.1				
5/1/2017					<0.1	0.0061 (J)
6/27/2017						0.0079 (J)
6/29/2017	<0.1	<0.1			<0.1	
10/3/2017		<0.1				0.0094 (J)
10/4/2017	<0.1					
10/5/2017					<0.1	
10/11/2017			0.0135 (J)			
10/12/2017				0.0401		
11/20/2017			0.0251 (J)	0.156		
1/10/2018				0.15		
1/11/2018			0.0255 (J)			
2/19/2018				0.146		
2/20/2018			<0.1			
4/3/2018			0.033 (J)	0.12		
6/5/2018		0.0092 (J)				
6/6/2018	0.0049 (J)					0.0098 (J)
6/7/2018					0.0045 (J)	
6/28/2018			0.053	0.16		
8/7/2018			0.024 (J)	0.12		
9/24/2018			0.028 (J)	0.099		
9/25/2018	<0.1	0.0054 (J)				
9/26/2018					0.005 (J)	0.01 (J)
3/26/2019				0.096		
3/27/2019			0.017 (J)			
4/2/2019		0.011 (J)				
4/3/2019	<0.1				0.0055 (J)	0.0076 (J)
9/24/2019		0.018 (J)				0.01 (J)
9/25/2019	<0.1				<0.1	
10/9/2019			0.017 (J)	0.079		
3/24/2020	<0.1	0.016 (J)		0.088 (J)		0.011 (J)
3/25/2020			0.043 (J)		0.011 (J)	
9/22/2020					<0.1	0.0079 (J)
9/24/2020	0.0094 (J)	0.013 (J)	0.037 (J)	0.087 (J)		

Time Series

Constituent: Boron, total (mg/L) Analysis Run 12/1/2020 12:18 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-5I (bg)	GWA-2 (bg)	YGWA-14S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-2I (bg)
6/1/2016				<0.1	<0.1	
6/2/2016	<0.1		<0.1			
7/25/2016					<0.1	
7/26/2016	<0.1		0.0177 (J)	0.0055 (J)		
8/31/2016		0.0315 (J)				
9/13/2016				<0.1	<0.1	
9/14/2016	0.01 (J)					<0.1
9/15/2016			0.0214 (J)			
11/1/2016				0.0086 (J)		
11/2/2016			<0.1			
11/4/2016	<0.1				<0.1	<0.1
11/28/2016		0.0095 (J)				
12/15/2016						0.0107 (J)
1/10/2017			0.0198 (J)			
1/11/2017				0.0074 (J)		
1/12/2017	<0.1					
1/16/2017					<0.1	<0.1
2/22/2017		<0.1				
3/2/2017				0.008 (J)	<0.1	
3/3/2017						<0.1
3/7/2017	<0.1					
3/8/2017			0.0189 (J)			
4/26/2017			0.0161 (J)			
4/27/2017				0.0066 (J)	<0.1	
4/28/2017						<0.1
5/2/2017	<0.1					
5/8/2017		0.0084 (J)				
5/26/2017						<0.1
6/27/2017	<0.1			0.0087 (J)	0.006 (J)	
6/28/2017						<0.1
6/30/2017			0.0173 (J)			
7/17/2017		0.0092 (J)				
10/3/2017	<0.1			0.0072 (J)	0.0071 (J)	<0.1
10/5/2017			0.0173 (J)			
10/16/2017		<0.1				
2/19/2018		<0.1				
6/5/2018				0.0052 (J)		
6/6/2018					<0.1	
6/7/2018	<0.1					<0.1
6/8/2018			0.013 (J)			
8/6/2018		<0.1				
9/26/2018	0.0057 (J)					
10/1/2018			0.015 (J)	0.021 (J)	0.0049 (J)	<0.1
2/25/2019		<0.1				
3/28/2019				0.005 (J)	<0.1	
3/29/2019			0.014 (J)			0.0065 (J)
4/3/2019	0.0044 (J)					
6/12/2019		<0.1				
9/24/2019	0.0049 (J)			0.0064 (J)	0.0055 (J)	0.0076 (J)
9/25/2019			0.018 (J)			
10/8/2019		<0.1				
3/17/2020		0.0051 (J)				

Time Series

Constituent: Boron, total (mg/L) Analysis Run 12/1/2020 12:18 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-5I (bg)	GWA-2 (bg)	YGWA-14S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-2I (bg)
3/18/2020			0.02 (J)		0.0087 (J)	
3/19/2020				0.0085 (J)		0.0073 (J)
3/24/2020	0.0068 (J)					
9/22/2020	0.0053 (J)	0.0079 (J)				
9/23/2020				<0.1	<0.1	<0.1
9/25/2020			0.02 (J)			

Time Series

Constituent: Boron, total (mg/L) Analysis Run 12/1/2020 12:18 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-30I (bg)	YGWA-3D (bg)	YGWA-3I (bg)	YGWC-46A	YGWC-52
6/1/2016			<0.1		
6/2/2016	<0.1	<0.1			
7/25/2016	<0.1		<0.1		
7/26/2016		0.0097 (J)			
9/1/2016				2.12	
9/14/2016			<0.1		
9/15/2016		0.0102 (J)			
9/19/2016	<0.1				
11/1/2016	<0.1	<0.1	<0.1		
11/16/2016				2.03	
1/11/2017		<0.1	<0.1		
1/16/2017	<0.1				
2/21/2017	<0.1				
2/27/2017				1.29	
3/1/2017			<0.1		
3/2/2017		0.0084 (J)			
4/26/2017	<0.1	<0.1	<0.1		
5/8/2017				1.71	
6/28/2017		<0.1	<0.1		
6/30/2017	<0.1				
7/13/2017				1.62	
10/4/2017	<0.1	<0.1	<0.1		
10/11/2017				1.17	
4/4/2018				1.2	
6/7/2018		0.004 (J)			
6/8/2018			<0.1		
6/11/2018	0.014 (J)				
9/19/2018				1.2	
10/1/2018		<0.1	<0.1		
10/2/2018	<0.1				
3/27/2019				0.89	
4/1/2019	<0.1	<0.1	<0.1		
9/25/2019	<0.1	0.0054 (J)	<0.1		
10/9/2019				1.1	
3/17/2020				1.3	
3/19/2020	0.0052 (J)	0.0073 (J)	0.0053 (J)		
7/6/2020				2	
8/27/2020					0.014 (J)
8/28/2020				1.8	
9/22/2020					<0.1
9/23/2020		0.012 (J)	0.0073 (J)	2	
9/24/2020	0.0075 (J)				
10/7/2020				1.8	0.018 (J)
11/12/2020				1.8	0.012 (J)

Time Series

Constituent: Cadmium (mg/L) Analysis Run 12/1/2020 12:18 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-47 (bg)	YGWC-44	YGWC-45	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)
6/6/2016					<0.0025	<0.0025
6/7/2016				<0.0025		
7/27/2016				<0.0025	<0.0025	<0.0025
8/30/2016	0.0001 (J)					
8/31/2016		<0.0025	<0.0025			
9/16/2016				<0.0025		<0.0025
9/19/2016					<0.0025	
11/3/2016				<0.0025	<0.0025	<0.0025
11/14/2016	0.0001 (J)		<0.0025			
11/15/2016		<0.0025				
1/11/2017				0.0001 (J)	<0.0025	0.0001 (J)
2/24/2017	9E-05 (J)					
2/27/2017			<0.0025			
2/28/2017		<0.0025				
3/1/2017					<0.0025	<0.0025
3/2/2017				<0.0025		
4/26/2017					<0.0025	<0.0025
5/2/2017				<0.0025		
5/8/2017	0.0001 (J)	<0.0025				
5/9/2017			<0.0025			
6/28/2017					<0.0025	<0.0025
6/29/2017				<0.0025		
7/11/2017	<0.0025					
7/13/2017		<0.0025	<0.0025			
10/10/2017	<0.0025	<0.0025	<0.0025			
3/28/2018				<0.0025	<0.0025	<0.0025
4/2/2018	<0.0025					
4/3/2018			<0.0025			
4/4/2018		<0.0025				
6/7/2018					<0.0025	
6/11/2018				<0.0025		<0.0025
9/19/2018	<0.0025	<0.0025	<0.0025			
9/25/2018				<0.0025	<0.0025	<0.0025
3/5/2019				<0.0025		<0.0025
3/6/2019					<0.0025	
4/2/2019				<0.0025		
4/3/2019					<0.0025	<0.0025
8/20/2019	<0.0025	<0.0025	<0.0025			
9/25/2019				<0.0025		
9/26/2019					<0.0025	<0.0025
10/8/2019	<0.0025	<0.0025				
10/9/2019			<0.0025			
2/11/2020				<0.0025	<0.0025	<0.0025
3/17/2020	<0.0025	<0.0025	<0.0025			
3/24/2020				<0.0025	<0.0025	<0.0025
8/27/2020	<0.0025	<0.0025				
8/28/2020			<0.0025			
9/23/2020				<0.0025	<0.0025	<0.0025

Time Series

Constituent: Cadmium (mg/L) Analysis Run 12/1/2020 12:18 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWA-4I (bg)	YGWA-5D (bg)
6/2/2016					<0.0025	<0.0025
6/7/2016	<0.0025	<0.0025				
7/26/2016					<0.0025	<0.0025
7/27/2016	<0.0025					
7/28/2016		<0.0025				
9/14/2016					<0.0025	<0.0025
9/19/2016	<0.0025	<0.0025				
11/2/2016	<0.0025				<0.0025	<0.0025
11/3/2016		<0.0025				
1/12/2017						<0.0025
1/13/2017	<0.0025	<0.0025			<0.0025	
3/6/2017	<0.0025	<0.0025			<0.0025	
3/7/2017						<0.0025
4/26/2017	<0.0025	<0.0025				
5/1/2017					<0.0025	<0.0025
6/27/2017						<0.0025
6/29/2017	<0.0025	<0.0025			<0.0025	
10/11/2017			<0.0025			
10/12/2017				<0.0025		
11/20/2017			<0.0025	<0.0025		
1/10/2018				<0.0025		
1/11/2018			<0.0025			
2/19/2018				<0.0025		
2/20/2018			<0.0025			
3/29/2018	<0.0025	<0.0025			<0.0025	<0.0025
4/3/2018			<0.0025	<0.0025		
6/5/2018		<0.0025				
6/6/2018	<0.0025					<0.0025
6/7/2018					<0.0025	
6/28/2018			<0.0025	<0.0025		
8/7/2018			<0.0025	<0.0025		
9/24/2018			<0.0025	<0.0025		
9/25/2018	<0.0025	9.6E-05 (J)				
9/26/2018					<0.0025	<0.0025
3/4/2019					<0.0025	<0.0025
3/5/2019	<0.0025	<0.0025				
4/2/2019		<0.0025				
4/3/2019	<0.0025				<0.0025	<0.0025
8/21/2019			<0.0025	<0.0025		
9/24/2019		<0.0025				<0.0025
9/25/2019	<0.0025				<0.0025	
10/9/2019			<0.0025	<0.0025		
2/12/2020	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
3/24/2020	<0.0025	<0.0025		<0.0025		<0.0025
3/25/2020			<0.0025		<0.0025	
9/22/2020					<0.0025	<0.0025
9/24/2020	<0.0025	<0.0025	<0.0025	<0.0025		

Time Series

Constituent: Cadmium (mg/L) Analysis Run 12/1/2020 12:18 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-5I (bg)	GWA-2 (bg)	YGWA-14S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-2I (bg)
5/1/2007		<0.0025				
9/11/2007		<0.0025				
3/20/2008		<0.0025				
8/27/2008		<0.0025				
3/3/2009		<0.0025				
11/18/2009		<0.0025				
3/3/2010		<0.0025				
9/8/2010		<0.0025				
3/10/2011		<0.0025				
9/8/2011		<0.0025				
3/5/2012		<0.0025				
9/10/2012		<0.0025				
2/6/2013		<0.0025				
8/12/2013		<0.0025				
2/5/2014		<0.0025				
8/5/2014		<0.0025				
2/4/2015		<0.0025				
8/3/2015		<0.0025				
2/16/2016		<0.0025				
6/1/2016				<0.0025	<0.0025	
6/2/2016	<0.0025		<0.0025			
7/25/2016					<0.0025	
7/26/2016	<0.0025		<0.0025	<0.0025		
8/31/2016		<0.0025				
9/13/2016				<0.0025	<0.0025	
9/14/2016	<0.0025					<0.0025
9/15/2016			<0.0025			
11/1/2016				<0.0025		
11/2/2016			<0.0025			
11/4/2016	<0.0025				<0.0025	<0.0025
11/28/2016		<0.0025				
12/15/2016						<0.0025
1/10/2017			<0.0025			
1/11/2017				0.0002 (J)		
1/12/2017	9E-05 (J)					
1/16/2017					<0.0025	<0.0025
2/22/2017		<0.0025				
3/2/2017				<0.0025	<0.0025	
3/3/2017						<0.0025
3/7/2017	<0.0025					
3/8/2017			7E-05 (J)			
4/26/2017			<0.0025			
4/27/2017				<0.0025	<0.0025	
4/28/2017						<0.0025
5/2/2017	<0.0025					
5/8/2017		<0.0025				
5/26/2017						<0.0025
6/27/2017	<0.0025			<0.0025	<0.0025	
6/28/2017						<0.0025
6/30/2017			<0.0025			
7/17/2017		<0.0025				
10/16/2017		<0.0025				

Time Series

Constituent: Cadmium (mg/L) Analysis Run 12/1/2020 12:18 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-5I (bg)	GWA-2 (bg)	YGWA-14S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-2I (bg)
2/19/2018		<0.0025				
3/27/2018			<0.0025		<0.0025	
3/28/2018						<0.0025
3/29/2018	<0.0025			<0.0025		
6/7/2018	<0.0025					
8/6/2018		<0.0025				
9/26/2018	<0.0025					
2/25/2019		<0.0025				
2/26/2019			<0.0025			
2/27/2019				<0.0025	<0.0025	<0.0025
3/4/2019	<0.0025					
3/28/2019				<0.0025	<0.0025	
3/29/2019			<0.0025			<0.0025
4/3/2019	<0.0025					
6/12/2019		<0.0025				
8/19/2019		<0.0025				
9/24/2019	<0.0025			<0.0025	<0.0025	<0.0025
9/25/2019			<0.0025			
10/8/2019		<0.0025				
2/10/2020				<0.0025	<0.0025	
2/11/2020						<0.0025
2/12/2020	<0.0025		<0.0025			
3/17/2020		<0.0025				
3/18/2020			<0.0025		<0.0025	
3/19/2020				<0.0025		<0.0025
3/24/2020	<0.0025					
8/26/2020		<0.0025				
9/22/2020	<0.0025	<0.0025				
9/23/2020				<0.0025	<0.0025	<0.0025
9/25/2020			<0.0025			

Time Series

Constituent: Cadmium (mg/L) Analysis Run 12/1/2020 12:18 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-30I (bg)	YGWA-3D (bg)	YGWA-3I (bg)	YGWC-46A	YGWC-52
6/1/2016			<0.0025		
6/2/2016	<0.0025	<0.0025			
7/25/2016	<0.0025		<0.0025		
7/26/2016		<0.0025			
9/1/2016				<0.0025	
9/14/2016			<0.0025		
9/15/2016		<0.0025			
9/19/2016	<0.0025				
11/1/2016	<0.0025	<0.0025	<0.0025		
11/16/2016				<0.0025	
1/11/2017		0.0001 (J)	8E-05 (J)		
1/16/2017	<0.0025				
2/21/2017	<0.0025				
2/27/2017				<0.0025	
3/1/2017			<0.0025		
3/2/2017		<0.0025			
4/26/2017	<0.0025	<0.0025	<0.0025		
5/8/2017				0.0001 (J)	
6/28/2017		<0.0025	<0.0025		
6/30/2017	<0.0025				
7/13/2017				<0.0025	
10/11/2017				<0.0025	
3/27/2018	<0.0025				
3/28/2018		<0.0025	<0.0025		
4/4/2018				<0.0025	
9/19/2018				<0.0025	
2/26/2019	<0.0025				
2/27/2019		<0.0025	<0.0025		
4/1/2019	<0.0025	<0.0025	<0.0025		
8/21/2019				0.00012 (J)	
9/25/2019	<0.0025	<0.0025	<0.0025		
10/9/2019				<0.0025	
2/11/2020			<0.0025		
2/12/2020	<0.0025	<0.0025			
3/17/2020				0.00012 (J)	
3/19/2020	<0.0025	<0.0025	<0.0025		
7/6/2020				<0.0025	
8/27/2020					<0.0025
8/28/2020				<0.0025	
9/23/2020		<0.0025	<0.0025		
9/24/2020	<0.0025				
11/12/2020				<0.0025	<0.0025

Time Series

Constituent: Calcium, total (mg/L) Analysis Run 12/1/2020 12:18 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-47 (bg)	YGWC-44	YGWC-45	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)
6/6/2016					6.2	1.4
6/7/2016				2.2		
7/27/2016				2	4.73	1.19
8/30/2016	20.9					
8/31/2016		27.3	46.7			
9/16/2016				1.97		1.5
9/19/2016					4.76	
11/3/2016				1.99	5.25	1.31
11/14/2016	18.6		50.6			
11/15/2016		27.8				
1/11/2017				2.28	4.74	1.25
2/24/2017	16.1					
2/27/2017			49.4			
2/28/2017		26.4				
3/1/2017					5.37	1.26
3/2/2017				2.15		
4/26/2017					4.28	1.05
5/2/2017				1.95		
5/8/2017	14.6	29.9				
5/9/2017			56			
6/28/2017					4.95	1.06
6/29/2017				2.02		
7/11/2017	14.3					
7/13/2017		30.2	54.8			
10/4/2017				2.03		1.1
10/5/2017					5.28	
10/10/2017	12.1	27.2	52.8			
4/2/2018	<25					
4/3/2018			50.6			
4/4/2018		30.1				
6/7/2018					4.8	
6/11/2018				2.1		1.4
9/19/2018	11.1 (J)	29.2	50.5			
9/25/2018				2.1	4.6	1
3/27/2019	10.8 (J)	27.9	48.8			
4/2/2019				2.5		
4/3/2019					5.3	1.2
9/25/2019				2.6		
9/26/2019					4.9	1.1
10/8/2019	9.7	28.1				
10/9/2019			47.9			
3/17/2020	14.8	31.9	54.8			
3/24/2020				2.7	5.3	1
9/22/2020	10.1	30.4				
9/23/2020			50	2.6	5.2	0.91 (J)

Time Series

Constituent: Calcium, total (mg/L) Analysis Run 12/1/2020 12:18 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWA-4I (bg)	YGWA-5D (bg)
6/2/2016					8.8	33
6/7/2016	2.3	3.7				
7/26/2016					7.69	32.3
7/27/2016	2.08					
7/28/2016		3.15				
9/14/2016					8.49	31
9/19/2016	1.97	3.17				
11/2/2016	2.13				7.83	30.9
11/3/2016		3.4				
1/12/2017						35.7
1/13/2017	2.45	4.98			8.08	
3/6/2017	2.48	6.28			8.64	
3/7/2017						32.7
4/26/2017	2.3	6.65				
5/1/2017					13.4	37
6/27/2017						36.5
6/29/2017	2.54	6.04			8.81	
10/3/2017		8.28				30.9
10/4/2017	2.25					
10/5/2017					9.29	
10/11/2017			2.74			
10/12/2017				2.9		
11/20/2017			1.81	10.4		
1/10/2018				10.2		
1/11/2018			1.54			
2/19/2018				<25		
2/20/2018			1.71			
4/3/2018			1.4	6.3		
6/5/2018		9.1				
6/6/2018	2.3					26.2
6/7/2018					8.2	
6/28/2018			1.4	6.7		
8/7/2018			1.2	6.3		
9/24/2018			1.1	5.7		
9/25/2018	2.3	10.4 (J)				
9/26/2018					9.5 (J)	25.8
3/26/2019				5.6		
3/27/2019			1.5			
4/2/2019		8.8				
4/3/2019	2.9				8.4	24.7 (J)
9/24/2019		7.7				25.8
9/25/2019	2.4				9.5	
10/9/2019			2.4	4.9		
3/24/2020	2.6	6		4.8		26.1
3/25/2020			2.7		10.5	
9/22/2020					9.6	27.2
9/24/2020	2.6	7.8	3.7	4.4		

Time Series

Constituent: Calcium, total (mg/L) Analysis Run 12/1/2020 12:18 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-5I (bg)	GWA-2 (bg)	YGWA-14S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-2I (bg)
6/1/2016				12	2.5	
6/2/2016	2.4		1.3			
7/25/2016					2.16	
7/26/2016	2.12		1.24	11		
8/31/2016		9.31				
9/13/2016				11.8	2.21	
9/14/2016	2.18					23.5
9/15/2016			1.17			
11/1/2016				11		
11/2/2016			1.23			
11/4/2016	2.17 (J)				2.67	23.7
11/28/2016		9.47 (B)				
12/15/2016						23.1
1/10/2017			1.24			
1/11/2017				11.2		
1/12/2017	2.37					
1/16/2017					2.45	23.3
2/22/2017		10.4				
3/2/2017				11	2.57	
3/3/2017						25.1
3/7/2017	2.34					
3/8/2017			1.21			
4/26/2017			1.14			
4/27/2017				11.1	2.38	
4/28/2017						30.7
5/2/2017	2.17					
5/8/2017		14.2				
5/26/2017						26.2
6/27/2017	2.13			13.8	2.36	
6/28/2017						26.1
6/30/2017			1.24			
7/17/2017		14.1				
10/3/2017	2.15			14	2.21	26.7
10/5/2017			1.11			
10/16/2017		13.6				
2/19/2018		<25				
6/5/2018				15.2 (J)		
6/6/2018					2.3	
6/7/2018	2.3					25
6/8/2018			1.1			
8/6/2018		11.4 (J)				
9/26/2018	2.3					
10/1/2018			0.99	15.1	1.8	25
2/25/2019		12.7 (J)				
3/28/2019				13.3 (J)	2.2	
3/29/2019			1.1			23.5 (J)
4/3/2019	2.8					
6/12/2019		18.9				
9/24/2019	2.5			15.8	2.3	26.4
9/25/2019			1.1			
10/8/2019		28.3				
3/17/2020		24.3				

Time Series

Constituent: Calcium, total (mg/L) Analysis Run 12/1/2020 12:18 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-5I (bg)	GWA-2 (bg)	YGWA-14S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-2I (bg)
3/18/2020			1.1		2.1	
3/19/2020				15		27.4
3/24/2020	2.5					
9/22/2020	2.6	31				
9/23/2020				14.1	1.8	26.3
9/25/2020			1.3			

Time Series

Constituent: Calcium, total (mg/L) Analysis Run 12/1/2020 12:18 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-30I (bg)	YGWA-3D (bg)	YGWA-3I (bg)	YGWC-46A	YGWC-52
6/1/2016			21		
6/2/2016	1.3	28			
7/25/2016	1.17		20.3		
7/26/2016		24.5			
9/1/2016				96.8	
9/14/2016			19.7		
9/15/2016		27			
9/19/2016	1.05				
11/1/2016	1.14	25.6	18.4		
11/16/2016				107	
1/11/2017		27.5	20.3		
1/16/2017	1.23				
2/21/2017	1.25				
2/27/2017				104	
3/1/2017			18.6		
3/2/2017		27.5			
4/26/2017	1.03	30.4	25.6		
5/8/2017				103	
6/28/2017		29.8	23.9		
6/30/2017	1.13				
7/13/2017				83.7	
10/4/2017	1.09	29.7	22.1		
10/11/2017				69	
4/4/2018				51.9	
6/7/2018		29.1			
6/8/2018			21.9 (J)		
6/11/2018	1.1				
9/19/2018				51.9	
10/1/2018		26.9	19.7		
10/2/2018	1.1				
3/27/2019				54.2	
4/1/2019	1.3	30.1	20.4 (J)		
9/25/2019	1.1	29.5	22.4		
10/9/2019				64.2	
3/17/2020				70.4	
3/19/2020	1.2	31.5	21.9		
7/6/2020				105	
8/27/2020					52.3
8/28/2020				102	
9/22/2020					53.5
9/23/2020		28.6	23.6	104	
9/24/2020	1.1				
10/7/2020				105	53.8
11/12/2020				110	53.6

Time Series

Constituent: Chloride, Total (mg/L) Analysis Run 12/1/2020 12:18 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-47 (bg)	YGWC-44	YGWC-45	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)
6/6/2016					6.8	6.4
6/7/2016				4.5		
7/27/2016				4.5	6.7	6.2
8/30/2016	5.2					
8/31/2016		13	5.8			
9/16/2016				4.5		6.1
9/19/2016					7	
11/3/2016				5.4	7.5	7.4
11/14/2016	6.4		5.8			
11/15/2016		14				
1/11/2017				4.7	6.5	6.1
2/24/2017	5.5					
2/27/2017			5			
2/28/2017		12				
3/1/2017					6.9	6
3/2/2017				4.8		
4/26/2017					7	6.5
5/2/2017				4.6		
5/8/2017	5.8	13				
5/9/2017			4.6			
6/28/2017					7	6.4
6/29/2017				4.5		
7/11/2017	5.8					
7/13/2017		13	4.7			
10/4/2017				4.7		6.8
10/5/2017					7	
10/10/2017	5.9	14	4.5			
4/2/2018	4.8					
4/3/2018			4.6			
4/4/2018		13.4				
6/7/2018					6.8	
6/11/2018				4.9		6.8
9/19/2018	4	14.2	4.7			
9/25/2018				5.6	7.9	7.8
3/27/2019	4.3	14	4.6			
4/2/2019				4.8		
4/3/2019					6.9	6.3
9/25/2019				5.7		
9/26/2019					7	7.1
10/8/2019	4.4	14.8				
10/9/2019			5.1			
3/17/2020	4.1	14	4.6			
3/24/2020				5	7	6.8
9/22/2020	4.2	14.4				
9/23/2020			4.9	6.6	7.2	7.2

Time Series

Constituent: Chloride, Total (mg/L) Analysis Run 12/1/2020 12:18 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWA-4I (bg)	YGWA-5D (bg)
6/2/2016					3.7	7.2
6/7/2016	1.9	2.8				
7/26/2016					3.6	6.6
7/27/2016	1.9					
7/28/2016		2.6				
9/14/2016					3.4	6.6
9/19/2016	1.9	2.4				
11/2/2016	2.6				4.5	7.6
11/3/2016		2.9				
1/12/2017						6.8
1/13/2017	2.3	2.5			4.2	
3/6/2017	1.9	2.1			3.6	
3/7/2017						6.8
4/26/2017	2	2.1				
5/1/2017					4.3	7.2
6/27/2017						7
6/29/2017	2.6	2.8			4.2	
10/3/2017		2.2				6.5
10/4/2017	2.6					
10/5/2017					4.7	
10/11/2017			2.4			
10/12/2017				3.8		
11/20/2017			1.8	4.4		
1/10/2018				4.6		
1/11/2018			1.6			
2/19/2018				4.6		
2/20/2018			2			
4/3/2018			3.3	5.9		
6/5/2018		1.7				
6/6/2018	2.7					4.7
6/7/2018					4.4	
6/28/2018			2.1	5		
8/7/2018			1.2	4.3		
9/24/2018			1.3	4.9		
9/25/2018	3.6	2.2				
9/26/2018					4.8	4.8
3/26/2019				4.4		
3/27/2019			1.4			
4/2/2019		2.5				
4/3/2019	3.1				4.3	4
9/24/2019		3.1				3.7
9/25/2019	2.8				4.5	
10/9/2019			2.1	5.1		
3/24/2020	2.7	2.8		4.7		3.5
3/25/2020			1.9		3.9	
9/22/2020					4.5	3.6
9/24/2020	2.7	2	2.7	5		

Time Series

Constituent: Chloride, Total (mg/L) Analysis Run 12/1/2020 12:18 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-5I (bg)	GWA-2 (bg)	YGWA-14S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-2I (bg)
6/1/2016				1.3	1.6	
6/2/2016	4.3		4.1			
7/25/2016					1.4	
7/26/2016	4.4		4	1.2		
8/31/2016		4				
9/13/2016				1.1	1.3	
9/14/2016	3.8					1.1
9/15/2016			4.2			
11/1/2016				1.3		
11/2/2016			4.9			
11/4/2016	4.8				1.6	1.4
11/28/2016		4.2				
12/15/2016						2.9
1/10/2017			4.1			
1/11/2017				1.1		
1/12/2017	3.8					
1/16/2017					1.4	0.98
2/22/2017		3.7				
3/2/2017				1	1.3	
3/3/2017						1.1
3/7/2017	4.5					
3/8/2017			4.2			
4/26/2017			4.1			
4/27/2017				1	1.3	
4/28/2017						0.91
5/2/2017	4.6					
5/8/2017		4.2				
5/26/2017						0.93
6/27/2017	4.3			1.1	1.4	
6/28/2017						1
6/30/2017			3.7			
7/17/2017		3.8				
10/3/2017	4.2			1.1	1.7	1.2
10/5/2017			3.8			
10/16/2017		4.2				
2/19/2018		4.3				
6/5/2018				1.1		
6/6/2018					1.4	
6/7/2018	4.5					1
6/8/2018			3.4			
8/6/2018		3.8				
9/26/2018	5.1					
10/1/2018			3.8	1.1	1.4	1.1
2/25/2019		4.1				
3/28/2019				1.4	1.5	
3/29/2019			4.2			1.2
4/3/2019	4.2					
6/12/2019		4.7				
9/24/2019	4.5			1.1	1.3	0.95 (J)
9/25/2019			4.8			
10/8/2019		5.1				
3/17/2020		4.8				

Time Series

Constituent: Chloride, Total (mg/L) Analysis Run 12/1/2020 12:18 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-5I (bg)	GWA-2 (bg)	YGWA-14S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-2I (bg)
3/18/2020			5.2		1.4	
3/19/2020				1.1		0.97 (J)
3/24/2020	4.3					
9/22/2020	4.2	4.2				
9/23/2020				0.99 (J)	1.2	0.88 (J)
9/25/2020			5.3			

Time Series

Constituent: Chloride, Total (mg/L) Analysis Run 12/1/2020 12:18 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-30I (bg)	YGWA-3D (bg)	YGWA-3I (bg)	YGWC-46A	YGWC-52
6/1/2016			1.3		
6/2/2016	1.9	1.4			
7/25/2016	1.7		1.3		
7/26/2016		1.6			
9/1/2016				37	
9/14/2016			1.3		
9/15/2016		1.5			
9/19/2016	1.6				
11/1/2016	1.8	1.7	1.4		
11/16/2016				37	
1/11/2017		1.2	1.1		
1/16/2017	1.7				
2/21/2017	1.7				
2/27/2017				33	
3/1/2017			1.1		
3/2/2017		1.2			
4/26/2017	1.7	1.2	1.1		
5/8/2017				33	
6/28/2017		1.3	1.2		
6/30/2017	1.8				
7/13/2017				32	
10/4/2017	1.8	1.5	1.2		
10/11/2017				29	
4/4/2018				26.6	
6/7/2018		1.2			
6/8/2018			1.2		
6/11/2018	2				
9/19/2018				26.5	
10/1/2018		1.5	1.2		
10/2/2018	1.8				
3/27/2019				20.9	
4/1/2019	1.7	1.2	1.1		
9/25/2019	1.6	1.1	1.1		
10/9/2019				25	
3/17/2020				24.8	
3/19/2020	1.8	1.2	1.1		
7/6/2020				25.8	
8/27/2020					3.9
8/28/2020				25.9	
9/22/2020					4.1
9/23/2020		1.1	1	28.1	
9/24/2020	1.5				
10/7/2020				28.2	4
11/12/2020				26.7	3.8

Time Series

Constituent: Chromium (mg/L) Analysis Run 12/1/2020 12:18 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-47 (bg)	YGWC-44	YGWC-45	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)
6/6/2016					0.0012 (J)	<0.01
6/7/2016				<0.01		
7/27/2016				0.0008 (J)	0.0007 (J)	0.0006 (J)
8/30/2016	<0.01					
8/31/2016		<0.01	<0.01			
9/16/2016				<0.01		<0.01
9/19/2016					<0.01	
11/3/2016				<0.01	<0.01	<0.01
11/14/2016	0.0093 (J)		0.0061 (J)			
11/15/2016		<0.01				
1/11/2017				<0.01	<0.01	<0.01
2/24/2017	<0.01					
2/27/2017			<0.01			
2/28/2017		<0.01				
3/1/2017					0.0012 (J)	<0.01
3/2/2017				0.001 (J)		
4/26/2017					0.0005 (J)	0.0003 (J)
5/2/2017				0.0007 (J)		
5/8/2017	<0.01	<0.01				
5/9/2017			<0.01			
6/28/2017					0.0006 (J)	<0.01
6/29/2017				0.0006 (J)		
7/11/2017	<0.01					
7/13/2017		<0.01	0.0006 (J)			
10/10/2017	<0.01	<0.01	<0.01			
3/28/2018				<0.01	<0.01	<0.01
4/2/2018	<0.01					
4/3/2018			<0.01			
4/4/2018		<0.01				
9/19/2018	<0.01	<0.01	<0.01			
3/5/2019				<0.01		<0.01
3/6/2019					<0.01	
8/20/2019	<0.01	<0.01	<0.01			
2/11/2020				0.00087 (J)	0.001 (J)	0.00088 (J)
3/24/2020				0.00087 (J)	0.00095 (J)	0.0011 (J)
8/27/2020	<0.01	<0.01				
8/28/2020			<0.01			
9/22/2020	<0.01	<0.01				
9/23/2020			0.00058 (J)	0.00098 (J)	0.00092 (J)	0.0012 (J)

Time Series

Constituent: Chromium (mg/L) Analysis Run 12/1/2020 12:18 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWA-4I (bg)	YGWA-5D (bg)
6/2/2016					<0.01	<0.01
6/7/2016	<0.01	<0.01				
7/26/2016					<0.01	<0.01
7/27/2016	0.0005 (J)					
7/28/2016		<0.01				
9/14/2016					<0.01	<0.01
9/19/2016	<0.01	<0.01				
11/2/2016	<0.01				<0.01	<0.01
11/3/2016		<0.01				
1/12/2017						<0.01
1/13/2017	<0.01	<0.01			<0.01	
3/6/2017	<0.01	<0.01			<0.01	
3/7/2017						<0.01
4/26/2017	0.0007 (J)	<0.01				
5/1/2017					<0.01	0.0004 (J)
6/27/2017						<0.01
6/29/2017	0.0005 (J)	<0.01			<0.01	
10/11/2017			<0.01			
10/12/2017				<0.01		
11/20/2017			<0.01	<0.01		
1/10/2018				<0.01		
1/11/2018			<0.01			
2/19/2018				<0.01		
2/20/2018			<0.01			
3/29/2018	<0.01	<0.01			<0.01	<0.01
4/3/2018			<0.01	<0.01		
6/28/2018			<0.01	<0.01		
8/7/2018			<0.01	<0.01		
9/24/2018			<0.01	<0.01		
3/4/2019					<0.01	<0.01
3/5/2019	<0.01	<0.01				
8/21/2019			<0.01	0.00053 (J)		
10/9/2019			<0.01	0.0012 (J)		
2/12/2020	0.00045 (J)	<0.01	<0.01	0.00065 (J)	<0.01	<0.01
3/24/2020	0.00077 (J)	<0.01		0.00055 (J)		<0.01
3/25/2020			<0.01		0.00058 (J)	
9/22/2020					<0.01	0.0011 (J)
9/24/2020	0.00076 (J)	<0.01	<0.01	<0.01		

Time Series

Constituent: Chromium (mg/L) Analysis Run 12/1/2020 12:18 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-5I (bg)	GWA-2 (bg)	YGWA-14S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-2I (bg)
5/1/2007		0.0029				
9/11/2007		0.0084				
3/20/2008		0.0027				
8/27/2008		0.0026				
3/3/2009		0.0022				
11/18/2009		0.0036				
3/3/2010		<0.01				
9/8/2010		<0.01				
3/10/2011		<0.01				
9/8/2011		<0.01				
3/5/2012		<0.01				
9/10/2012		<0.01				
2/6/2013		<0.01				
8/12/2013		<0.01				
2/5/2014		0.0059				
8/5/2014		<0.01				
2/4/2015		<0.01				
8/3/2015		0.0011 (J)				
2/16/2016		<0.01				
6/1/2016				0.0035	<0.01	
6/2/2016	<0.01		<0.01			
7/25/2016					<0.01	
7/26/2016	<0.01		<0.01	<0.01		
8/31/2016		<0.01				
9/13/2016				<0.01	<0.01	
9/14/2016	<0.01					<0.01
9/15/2016			<0.01			
11/1/2016				<0.01		
11/2/2016			<0.01			
11/4/2016	<0.01				<0.01	<0.01
11/28/2016		<0.01				
12/15/2016						<0.01
1/10/2017			<0.01			
1/11/2017				<0.01		
1/12/2017	<0.01					
1/16/2017					<0.01	<0.01
2/22/2017		<0.01				
3/2/2017				0.0009 (J)	0.0004 (J)	
3/3/2017						0.0005 (J)
3/7/2017	<0.01					
3/8/2017			<0.01			
4/26/2017			<0.01			
4/27/2017				<0.01	<0.01	
4/28/2017						0.0004 (J)
5/2/2017	<0.01					
5/8/2017		<0.01				
5/26/2017						<0.01
6/27/2017	<0.01			<0.01	<0.01	
6/28/2017						<0.01
6/30/2017			<0.01			
7/17/2017		<0.01				
10/16/2017		<0.01				

Time Series

Constituent: Chromium (mg/L) Analysis Run 12/1/2020 12:18 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-5I (bg)	GWA-2 (bg)	YGWA-14S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-2I (bg)
2/19/2018		<0.01				
3/27/2018			<0.01		<0.01	
3/28/2018						<0.01
3/29/2018	<0.01			<0.01		
8/6/2018		<0.01				
2/25/2019		<0.01				
2/26/2019			<0.01			
2/27/2019				<0.01	<0.01	<0.01
3/4/2019	<0.01					
3/28/2019				<0.01	0.0021 (J)	
3/29/2019			<0.01			<0.01
6/12/2019		<0.01				
8/19/2019		<0.01				
9/24/2019				0.00072 (J)	0.0028 (J)	<0.01
9/25/2019			<0.01			
10/8/2019		<0.01				
2/10/2020				0.00042 (J)	<0.01	
2/11/2020						<0.01
2/12/2020	0.00043 (J)		<0.01			
3/17/2020		<0.01				
3/18/2020			<0.01		0.00044 (J)	
3/19/2020				0.00084 (J)		0.00048 (J)
3/24/2020	0.0014 (J)					
8/26/2020		<0.01				
9/22/2020	<0.01	<0.01				
9/23/2020				0.00062 (J)	0.00058 (J)	<0.01
9/25/2020			<0.01			

Time Series

Constituent: Chromium (mg/L) Analysis Run 12/1/2020 12:18 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-30I (bg)	YGWA-3D (bg)	YGWA-3I (bg)	YGWC-46A	YGWC-52
6/1/2016			<0.01		
6/2/2016	<0.01	0.0013 (J)			
7/25/2016	<0.01		<0.01		
7/26/2016		<0.01			
9/1/2016				<0.01	
9/14/2016			<0.01		
9/15/2016		<0.01			
9/19/2016	<0.01				
11/1/2016	<0.01	<0.01	<0.01		
11/16/2016				<0.01	
1/11/2017		<0.01	<0.01		
1/16/2017	<0.01				
2/21/2017	<0.01				
2/27/2017				<0.01	
3/1/2017			0.0004 (J)		
3/2/2017		0.0006 (J)			
4/26/2017	0.0016 (J)	<0.01	<0.01		
5/8/2017				<0.01	
6/28/2017		<0.01	<0.01		
6/30/2017	<0.01				
7/13/2017				<0.01	
10/11/2017				<0.01	
3/27/2018	<0.01				
3/28/2018		<0.01	<0.01		
4/4/2018				<0.01	
9/19/2018				<0.01	
2/26/2019	<0.01				
2/27/2019		<0.01	<0.01		
4/1/2019	<0.01	<0.01	<0.01		
8/21/2019				<0.01	
9/25/2019	<0.01	0.0014 (J)	0.0019 (J)		
2/11/2020			<0.01		
2/12/2020	<0.01	<0.01			
3/19/2020	<0.01	<0.01	<0.01		
7/6/2020				<0.01	
8/27/2020					<0.01
8/28/2020				<0.01	
9/22/2020					0.00073 (J)
9/23/2020		<0.01	<0.01	<0.01	
9/24/2020	<0.01				
10/7/2020				<0.01	0.00086 (J)
11/12/2020				<0.01	<0.01

Time Series

Constituent: Cobalt (mg/L) Analysis Run 12/1/2020 12:19 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-47 (bg)	YGWC-44	YGWC-45	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)
6/6/2016					<0.005	0.00061 (J)
6/7/2016				<0.005		
7/27/2016				<0.005	<0.005	0.0004 (J)
8/30/2016	0.0073 (J)					
8/31/2016		0.0119	0.0009 (J)			
9/16/2016				<0.005		0.0008 (J)
9/19/2016					<0.005	
11/3/2016				<0.005	<0.005	<0.005
11/14/2016	0.0115		0.0009 (J)			
11/15/2016		0.0033 (J)				
1/11/2017				<0.005	<0.005	<0.005
2/24/2017	0.0106					
2/27/2017			0.001 (J)			
2/28/2017		0.0017 (J)				
3/1/2017					<0.005	<0.005
3/2/2017				<0.005		
4/26/2017					<0.005	<0.005
5/2/2017				<0.005		
5/8/2017	0.0099 (J)	0.0018 (J)				
5/9/2017			0.0008 (J)			
6/28/2017					<0.005	<0.005
6/29/2017				<0.005		
7/11/2017	0.0096 (J)					
7/13/2017		0.0022 (J)	0.0009 (J)			
10/10/2017	0.0036 (J)	0.0017 (J)	0.0008 (J)			
3/28/2018				<0.005	<0.005	<0.005
4/2/2018	<0.005					
4/3/2018			<0.01 (O)			
4/4/2018		<0.005				
6/7/2018					<0.005	
6/11/2018				<0.005		<0.005
9/19/2018	0.0036 (J)	0.0025 (J)	0.00081 (J)			
9/25/2018				<0.005	<0.005	<0.005
3/5/2019				<0.005		<0.005
3/6/2019					<0.005	
4/2/2019				<0.005		
4/3/2019					<0.005	<0.005
8/20/2019	0.00092 (J)	0.002 (J)	0.00071 (J)			
9/25/2019				<0.005		
9/26/2019					<0.005	<0.005
10/8/2019	0.0014 (J)	0.0017 (J)				
10/9/2019			0.0007 (J)			
2/11/2020				<0.005	<0.005	<0.005
3/17/2020	0.0017 (J)	0.004 (J)	0.00081 (J)			
3/24/2020				<0.005	<0.005	<0.005
8/27/2020	0.0011 (J)	0.003 (J)				
8/28/2020			0.00055 (J)			
9/22/2020	0.00097 (J)	0.0065				
9/23/2020			0.00053 (J)	<0.005	<0.005	<0.005

Time Series

Constituent: Cobalt (mg/L) Analysis Run 12/1/2020 12:19 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWA-4I (bg)	YGWA-5D (bg)
6/2/2016					0.00082 (J)	<0.005
6/7/2016	<0.005	0.0056				
7/26/2016					0.0012 (J)	<0.005
7/27/2016	<0.005					
7/28/2016		0.0032 (J)				
9/14/2016					0.0006 (J)	<0.005
9/19/2016	<0.005	0.0047 (J)				
11/2/2016	<0.005				<0.005	<0.005
11/3/2016		0.013				
1/12/2017						<0.005
1/13/2017	<0.005	0.011			0.0029 (J)	
3/6/2017	<0.005	0.011			0.0006 (J)	
3/7/2017						<0.005
4/26/2017	<0.005	0.009 (J)				
5/1/2017					<0.005	<0.005
6/27/2017						<0.005
6/29/2017	<0.005	0.0093 (J)			0.0005 (J)	
10/11/2017			<0.005			
10/12/2017				<0.005		
11/20/2017			<0.005	<0.005		
1/10/2018				<0.005		
1/11/2018			<0.005			
2/19/2018				<0.005		
2/20/2018			<0.005			
3/29/2018	<0.005	<0.005			<0.005	<0.005
4/3/2018			<0.005	<0.005		
6/5/2018		0.0041 (J)				
6/6/2018	<0.005					<0.005
6/7/2018					0.00058 (J)	
6/28/2018			<0.005	<0.005		
8/7/2018			<0.005	<0.005		
9/24/2018			<0.005	<0.005		
9/25/2018	<0.005	0.0044 (J)				
9/26/2018					<0.005	<0.005
3/4/2019					<0.005	<0.005
3/5/2019	<0.005	0.0039 (J)				
4/2/2019		0.0039 (J)				
4/3/2019	<0.005				0.00083 (J)	<0.005
8/21/2019			0.00034 (J)	<0.005		
9/24/2019		0.0032 (J)				<0.005
9/25/2019	<0.005				<0.005	
10/9/2019			<0.005	<0.005		
2/12/2020	<0.005	0.0081	0.00034 (J)	<0.005	<0.005	0.00037 (J)
3/24/2020	<0.005	0.0061		<0.005		0.00035 (J)
3/25/2020			0.00034 (J)		0.00056 (J)	
9/22/2020					<0.005	<0.005
9/24/2020	<0.005	0.0079	0.00053 (J)	<0.005		

Time Series

Constituent: Cobalt (mg/L) Analysis Run 12/1/2020 12:19 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-5I (bg)	GWA-2 (bg)	YGWA-14S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-2I (bg)
5/1/2007		0.0067				
9/11/2007		<0.005				
3/20/2008		<0.005				
8/27/2008		<0.005				
3/3/2009		<0.005				
11/18/2009		<0.005				
3/3/2010		0.0027				
9/8/2010		0.007				
3/10/2011		<0.005				
9/8/2011		<0.005				
3/5/2012		0.0032				
9/10/2012		<0.005				
2/6/2013		<0.005				
8/12/2013		0.0045				
2/5/2014		<0.005				
8/5/2014		0.0027				
2/4/2015		0.0016				
8/3/2015		0.002				
2/16/2016		0.0027				
6/1/2016				<0.005	0.00082 (J)	
6/2/2016	<0.005		<0.005			
7/25/2016					0.0008 (J)	
7/26/2016	<0.005		<0.005	<0.005		
8/31/2016		0.0053 (J)				
9/13/2016				<0.005	0.0009 (J)	
9/14/2016	<0.005					<0.005
9/15/2016			<0.005			
11/1/2016				<0.005		
11/2/2016			<0.005			
11/4/2016	<0.005				0.0025 (J)	<0.005
11/28/2016		0.0036 (J)				
12/15/2016						<0.005
1/10/2017			<0.005			
1/11/2017				<0.005		
1/12/2017	<0.005					
1/16/2017					0.0027 (J)	<0.005
2/22/2017		0.0049 (J)				
3/2/2017				<0.005	0.0022 (J)	
3/3/2017						<0.005
3/7/2017	<0.005					
3/8/2017			<0.005			
4/26/2017			<0.005			
4/27/2017				<0.005	0.0018 (J)	
4/28/2017						<0.005
5/2/2017	<0.005					
5/8/2017		0.0059 (J)				
5/26/2017						<0.005
6/27/2017	<0.005			<0.005	0.0023 (J)	
6/28/2017						<0.005
6/30/2017			<0.005			
7/17/2017		0.0046 (J)				
10/16/2017		0.0034 (J)				

Time Series

Constituent: Cobalt (mg/L) Analysis Run 12/1/2020 12:19 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-5I (bg)	GWA-2 (bg)	YGWA-14S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-2I (bg)
2/19/2018		<0.005				
3/27/2018			<0.005		<0.005	
3/28/2018						<0.005
3/29/2018	<0.005			<0.005		
6/5/2018				<0.005		
6/6/2018					<0.005	
6/7/2018	<0.005					<0.005
6/8/2018			<0.005			
8/6/2018		0.003 (J)				
9/26/2018	<0.005					
10/1/2018			<0.005	<0.005	0.00059 (J)	<0.005
2/25/2019		0.001 (J)				
2/26/2019			<0.005			
2/27/2019				<0.005	0.00064 (J)	<0.005
3/4/2019	<0.005					
3/28/2019				<0.005	0.00091 (J)	
3/29/2019			<0.005			<0.005
4/3/2019	<0.005					
6/12/2019		0.003 (J)				
8/19/2019		0.0035 (J)				
9/24/2019	<0.005			<0.005	0.0013 (J)	<0.005
9/25/2019			<0.005			
10/8/2019		0.0039 (J)				
2/10/2020				<0.005	0.0016 (J)	
2/11/2020						<0.005
2/12/2020	<0.005		<0.005			
3/17/2020		0.003 (J)				
3/18/2020			<0.005		0.00087 (J)	
3/19/2020				<0.005		<0.005
3/24/2020	<0.005					
8/26/2020		0.2 (O)				
9/22/2020	<0.005	0.16 (O)				
9/23/2020				<0.005	0.0013 (J)	<0.005
9/25/2020			<0.005			

Time Series

Constituent: Cobalt (mg/L) Analysis Run 12/1/2020 12:19 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-30I (bg)	YGWA-3D (bg)	YGWA-3I (bg)	YGWC-46A	YGWC-52
6/1/2016			<0.005		
6/2/2016	0.035	<0.005			
7/25/2016	0.0312		<0.005		
7/26/2016		<0.005			
9/1/2016				0.0171	
9/14/2016			<0.005		
9/15/2016		<0.005			
9/19/2016	0.0275				
11/1/2016	0.0255	<0.005	<0.005		
11/16/2016				0.0145	
1/11/2017		<0.005	<0.005		
1/16/2017	0.0245				
2/21/2017	0.0272				
2/27/2017				0.0161	
3/1/2017			<0.005		
3/2/2017		<0.005			
4/26/2017	0.0244	<0.005	<0.005		
5/8/2017				0.0367	
6/28/2017		<0.005	<0.005		
6/30/2017	0.0233				
7/13/2017				0.0265	
10/11/2017				0.0556	
3/27/2018	0.023				
3/28/2018		<0.005	<0.005		
4/4/2018				0.025	
6/7/2018		<0.005			
6/8/2018			<0.005		
6/11/2018	0.023				
9/19/2018				0.042	
10/1/2018		<0.005	<0.005		
10/2/2018	0.022				
2/26/2019	0.021				
2/27/2019		<0.005	<0.005		
4/1/2019	0.022	<0.005	<0.005		
8/21/2019				0.027	
9/25/2019	0.016	<0.005	<0.005		
10/9/2019				0.024	
2/11/2020			<0.005		
2/12/2020	0.014	<0.005			
3/17/2020				0.022	
3/19/2020	0.014	<0.005	<0.005		
7/6/2020				0.0041 (J)	
8/27/2020					0.0022 (J)
8/28/2020				0.0038 (J)	
9/22/2020					0.0019 (J)
9/23/2020		<0.005	<0.005	0.0015 (J)	
9/24/2020	0.0064				
10/7/2020				0.0014 (J)	0.0019 (J)
11/12/2020				0.001 (J)	0.0015 (J)

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 12/1/2020 12:19 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-47 (bg)	YGWC-44	YGWC-45	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)
6/6/2016					0.0804 (U)	0.301 (U)
6/7/2016				0.158 (U)		
7/27/2016				0.0354 (U)	0.206 (U)	0.196 (U)
8/30/2016	1.09					
8/31/2016		2.15	1.65			
9/16/2016				1.04		0.915 (U)
9/19/2016					1.58	
11/3/2016				0.314 (U)	0.342 (U)	0.928 (U)
11/14/2016			0.981 (U)			
11/15/2016		0.676 (U)				
12/15/2016	1 (U)					
1/11/2017				0.34 (U)	0.365 (U)	0.502 (U)
2/24/2017	0.504 (U)					
2/27/2017			0.528 (U)			
2/28/2017		0.241 (U)				
3/1/2017					0.395 (U)	0.202 (U)
3/2/2017				0.746 (U)		
4/26/2017					0.507 (U)	0.264 (U)
5/2/2017				0.111 (U)		
5/8/2017	0.455 (U)	0.508 (U)				
5/9/2017			1.4			
6/28/2017					0.892	0.636 (U)
6/29/2017				0.576 (U)		
7/11/2017	0.471 (U)					
7/13/2017		0.77 (U)	0.611 (U)			
10/10/2017	0.649 (U)	1.43	1.47			
3/28/2018				0.438 (U)	0.92 (U)	0.56 (U)
4/2/2018	0.512 (U)					
4/3/2018			1.53			
4/4/2018		0.325 (U)				
6/7/2018					0.668 (U)	
6/11/2018				0.901 (U)		0.649 (U)
9/19/2018	0.789 (U)	0.386 (U)	0.839 (U)			
9/25/2018				0.68 (U)	0.141 (U)	0.574 (U)
3/5/2019				0.272 (U)		0.474 (U)
3/6/2019					0.714 (U)	
4/2/2019				0.847 (U)		
4/3/2019					0.385 (U)	0.429 (U)
8/20/2019	2.44	1.71	2.23			
9/25/2019				0.412 (U)		
9/26/2019					0.386 (U)	0.222 (U)
10/8/2019	1.72	0.769 (U)				
10/9/2019			1.61			
2/11/2020				0.461 (U)	1.48	0.597 (U)
3/17/2020	1.22 (U)	1.37	1.44			
3/24/2020				0.534 (U)	0.632 (U)	0.262 (U)
8/27/2020	1.26 (U)	0.0859 (U)				
8/28/2020			0.983 (U)			
9/22/2020	1.06 (U)	0.327 (U)				
9/23/2020			0.746 (U)	0.466 (U)	0.887 (U)	0.43 (U)

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 12/1/2020 12:19 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWA-4I (bg)	YGWA-5D (bg)
6/2/2016					0.721	5.11
6/7/2016	0.0191 (U)	0.347				
7/26/2016					1.26	6.92
7/27/2016	0.541 (U)					
7/28/2016		0.815 (U)				
9/14/2016					0.901 (U)	3.96
9/19/2016	0.826 (U)	0.862 (U)				
11/2/2016	0.791 (U)				1.09 (U)	4.53
11/3/2016		0.797 (U)				
1/12/2017						4.43
1/13/2017	0.296 (U)	0.72 (U)			1.19	
3/6/2017	0.518 (U)	0.518 (U)			0.669 (U)	
3/7/2017						4.8
4/26/2017	0.282 (U)	1.13 (U)				
5/1/2017					0.803 (U)	4.16
6/27/2017						2.8
6/29/2017	1.12	0.841 (U)			1.35	
10/11/2017			0.586 (U)			
10/12/2017				1.49		
11/20/2017			0.816 (U)	0.918 (U)		
1/10/2018				1.05		
1/11/2018			0.841 (U)			
2/19/2018				2.05		
2/20/2018			1.58			
3/29/2018	1.73	1.91			0.703 (U)	3.42
4/3/2018			0.385 (U)	0.68 (U)		
6/5/2018		1.39				
6/6/2018	0.694 (U)					3.99
6/7/2018					0.628 (U)	
6/28/2018			0.283 (U)	1.28		
8/7/2018			0.332 (U)	1.16		
9/24/2018			0.767 (U)	0.965 (U)		
9/25/2018	0.772 (U)	1.62				
9/26/2018					0.756 (U)	2.73
3/4/2019					1.21 (U)	4.43
3/5/2019	0.84 (U)	0.985 (U)				
4/2/2019		1.42				
4/3/2019	1.01				1.07 (U)	4.79
8/21/2019			1.01 (U)	1.24 (U)		
9/24/2019		1.35				4.06
9/25/2019	1.18 (U)				1.86	
10/8/2019			1.02 (U)	0.866 (U)		
2/12/2020	1.11 (U)	1.61	0.45 (U)	1.83	1.25	4.02
3/24/2020	1.88	1.24 (U)		1.27 (U)		3.52
3/25/2020			0.377 (U)		0.766 (U)	
9/22/2020					0.795 (U)	2.98
9/24/2020	0.611 (U)	1.8	0.568 (U)	0.634 (U)		

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 12/1/2020 12:19 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-5I (bg)	GWA-2 (bg)	YGWA-14S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-2I (bg)
6/1/2016				0.321 (U)	0.42	
6/2/2016	0.614		0.329 (U)			
7/25/2016					1.83	
7/26/2016	1.47		1.51	0.707 (U)		
8/31/2016		1.2				
9/13/2016				1.22	0.841	
9/14/2016	1.27					0.98 (U)
9/15/2016			1.04 (U)			
11/1/2016				0.805 (U)		
11/2/2016			0.496 (U)			
11/4/2016	0.434 (U)				0.166 (U)	0.277 (U)
11/28/2016		0.264 (U)				
12/15/2016						0.071 (U)
1/10/2017			0.376 (U)			
1/11/2017				0.705 (U)		
1/12/2017	0.202 (U)					
1/16/2017					0	0.44 (U)
2/22/2017		1.06 (U)				
3/2/2017				0.251 (U)	0.504 (U)	
3/3/2017						0.448 (U)
3/7/2017	0.0674 (U)					
3/8/2017			0.0745 (U)			
4/26/2017			0.282 (U)			
4/27/2017				1.08	0.593 (U)	
4/28/2017						0.548 (U)
5/2/2017	0.444 (U)					
5/8/2017		0.187 (U)				
5/26/2017						0 (U)
6/27/2017	0.77 (U)			1.02 (U)	0.657 (U)	
6/28/2017						0.608 (U)
6/30/2017			0.994			
7/17/2017		1.42				
10/16/2017		1.17				
2/19/2018		1.58 (D)				
3/27/2018			0.189 (U)		0.39 (U)	
3/28/2018						0.412 (U)
3/29/2018	0.648 (U)			0.503 (U)		
6/5/2018				0.771 (U)		
6/6/2018					2.8	
6/7/2018	0.745 (U)					0.73 (U)
6/8/2018			0.218 (U)			
8/6/2018		0.196 (U)				
9/26/2018	0.377 (U)					
10/1/2018			1.24	0.783 (U)	1.06 (U)	0.756 (U)
2/26/2019			0.202 (U)			
2/27/2019				1.21 (U)	0.637 (U)	0.635 (U)
3/4/2019	1 (U)					
3/28/2019				1.13 (U)	0.125 (U)	
3/29/2019			0 (U)			0.224 (U)
4/3/2019	0.43 (U)					
8/19/2019		1.39				
9/24/2019	0.699 (U)			1.22 (U)	0.949 (U)	0.429 (U)

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 12/1/2020 12:19 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-5I (bg)	GWA-2 (bg)	YGWA-14S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-2I (bg)
9/25/2019			0.707 (U)			
10/8/2019		1.32 (U)				
2/10/2020				1.41	1.25 (U)	
2/11/2020						0.817 (U)
2/12/2020	0.913 (U)		1.07 (U)			
3/17/2020		1 (U)				
3/18/2020			0.207 (U)		0.458 (U)	
3/19/2020				1.1		0.715 (U)
8/26/2020		1.75				
9/22/2020	0.428 (U)	0.688 (U)				
9/23/2020				1.35 (U)	0.00884 (U)	0.565 (U)
9/25/2020			0.603 (U)			

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 12/1/2020 12:19 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-30I (bg)	YGWA-3D (bg)	YGWA-3I (bg)	YGWC-46A	YGWC-52
6/1/2016			0.896		
6/2/2016	0.0652 (U)	2.51			
7/25/2016	3.01		2.28		
7/26/2016		3.82			
9/1/2016				2.28	
9/14/2016			0.821 (U)		
9/15/2016		4.24			
9/19/2016	0.871 (U)				
11/1/2016	0.307 (U)	3.92	0.585 (U)		
11/16/2016				0.639 (U)	
11/28/2016				0.996	
1/11/2017		2.52	1.22		
1/16/2017	0.284 (U)				
2/21/2017	0.503 (U)				
2/27/2017				0.617 (U)	
3/1/2017			0.877 (U)		
3/2/2017		3.13			
4/26/2017	0.204 (U)	2.35	0.672 (U)		
5/8/2017				0.949	
6/28/2017		2.6	1.07 (U)		
6/30/2017	0.738 (U)				
7/13/2017				1.41	
10/11/2017				0.856 (U)	
3/27/2018	0.31 (U)				
3/28/2018		3	0.65 (U)		
4/4/2018				0.974	
6/7/2018		2.79			
6/8/2018			1.89		
6/11/2018	0.608 (U)				
9/19/2018				1.15 (U)	
10/1/2018		3.14	1.58		
10/2/2018	0.97 (U)				
2/26/2019	0.524 (U)				
2/27/2019		3.79	3.67		
4/1/2019	1.02 (U)	4.33	2.28		
8/21/2019				1.31	
9/25/2019	1.02 (U)	4.2	1.6		
10/9/2019				0.892 (U)	
2/11/2020		3.87	1.85		
2/12/2020	0.301 (U)				
3/17/2020				1.74	
3/19/2020	1	3.96	2.2		
7/6/2020				2.27	
8/27/2020					0.852 (U)
8/28/2020				2.34	
9/22/2020					0.268 (U)
9/23/2020		4.14	1.14 (U)	0.575 (U)	
9/24/2020	0.684 (U)				
10/7/2020				1.81	0.819 (U)

Time Series

Constituent: Fluoride, total (mg/L) Analysis Run 12/1/2020 12:19 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-47 (bg)	YGWC-44	YGWC-45	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)
6/6/2016					<0.1	<0.1
6/7/2016				<0.1		
7/27/2016				<0.1	<0.1	<0.1
8/30/2016	0.09 (J)					
8/31/2016		<0.1	0.11 (J)			
9/16/2016				<0.1		<0.1
9/19/2016					<0.1	
11/3/2016				<0.1	<0.1	<0.1
11/14/2016	0.18 (J)		0.71			
11/15/2016		0.12 (J)				
1/11/2017				<0.1	<0.1	<0.1
2/24/2017	0.05 (J)					
2/27/2017			0.22 (J)			
2/28/2017		0.07 (J)				
3/1/2017					<0.1	<0.1
3/2/2017				<0.1		
4/26/2017					<0.1	<0.1
5/2/2017				<0.1		
5/8/2017	0.03 (J)	0.04 (J)				
5/9/2017			0.2 (J)			
6/28/2017					<0.1	<0.1
6/29/2017				<0.1		
7/11/2017	0.07 (J)					
7/13/2017		<0.1	0.11 (J)			
10/4/2017				<0.1		<0.1
10/5/2017					<0.1	
10/10/2017	<0.1	<0.1	0.39			
3/28/2018				<0.1	<0.1	<0.1
4/2/2018	<0.1					
4/3/2018			<0.1			
4/4/2018		<0.1				
6/7/2018					<0.1	
6/11/2018				<0.1		<0.1
9/19/2018	<0.1	<0.1	<0.1			
9/25/2018				<0.1	<0.1	<0.1
3/5/2019				<0.1		<0.1
3/6/2019					<0.1	
3/27/2019	0.081 (J)	<0.1	0.18 (J)			
4/2/2019				<0.1		
4/3/2019					<0.1	<0.1
8/20/2019	<0.1	<0.1	<0.1			
9/25/2019				<0.1		
9/26/2019					<0.1	<0.1
10/8/2019	0.034 (J)	<0.1				
10/9/2019			<0.1			
2/11/2020				<0.1	<0.1	<0.1
3/17/2020	<0.1	<0.1	0.076 (J)			
3/24/2020				<0.1	<0.1	<0.1
8/27/2020	<0.1	<0.1				
8/28/2020			0.07 (J)			
9/22/2020	<0.1	<0.1				
9/23/2020			0.082 (J)	<0.1	<0.1	<0.1

Time Series

Constituent: Fluoride, total (mg/L) Analysis Run 12/1/2020 12:19 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWA-4I (bg)	YGWA-5D (bg)
6/2/2016					<0.1	0.11 (J)
6/7/2016	<0.1	<0.1				
7/26/2016					<0.1	0.05 (J)
7/27/2016	<0.1					
7/28/2016		0.02 (J)				
9/14/2016					<0.1	0.04 (J)
9/19/2016	<0.1	0.02 (J)				
11/2/2016	<0.1				<0.1	<0.1
11/3/2016		<0.1				
1/12/2017						0.04 (J)
1/13/2017	<0.1	<0.1			<0.1	
3/6/2017	<0.1	<0.1			<0.1	
3/7/2017						<0.1
4/26/2017	<0.1	0.04 (J)				
5/1/2017					<0.1	<0.1
6/27/2017						<0.1
6/29/2017	<0.1	<0.1			<0.1	
10/3/2017		<0.1				<0.1
10/4/2017	<0.1					
10/5/2017					<0.1	
10/11/2017			<0.1			
10/12/2017				<0.1		
11/20/2017			<0.1	<0.1		
1/10/2018				<0.1		
1/11/2018			<0.1			
2/19/2018				<0.1		
2/20/2018			0.23			
3/29/2018	<0.1	<0.1			<0.1	<0.1
4/3/2018			<0.1	<0.1		
6/5/2018		0.13 (J)				
6/6/2018	<0.1					0.15 (J)
6/7/2018					<0.1	
6/28/2018			<0.1	<0.1		
8/7/2018			0.048 (J)	<0.1		
9/24/2018			<0.1	<0.1		
9/25/2018	<0.1	0 (J)				
9/26/2018					<0.1	<0.1
3/4/2019					<0.1	0.19 (J)
3/5/2019	<0.1	0.32				
3/26/2019				<0.1		
3/27/2019			<0.1			
4/2/2019		0.12 (J)				
4/3/2019	<0.1				<0.1	0.047 (J)
8/21/2019			<0.1	<0.1		
9/24/2019		0.15 (J)				0.05 (J)
9/25/2019	<0.1				<0.1	
10/9/2019			<0.1	<0.1		
2/12/2020	<0.1	0.1 (J)	<0.1	<0.1	<0.1	<0.1
3/24/2020	<0.1	0.081 (J)		<0.1		<0.1
3/25/2020			<0.1		<0.1	
9/22/2020					<0.1	0.056 (J)
9/24/2020	<0.1	0.079 (J)	<0.1	<0.1		

Time Series

Constituent: Fluoride, total (mg/L) Analysis Run 12/1/2020 12:19 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-5I (bg)	GWA-2 (bg)	YGWA-14S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-2I (bg)
6/1/2016				0.12 (J)	<0.1	
6/2/2016	<0.1		<0.1			
7/25/2016					0.06 (J)	
7/26/2016	<0.1		0.02 (J)	0.08 (J)		
8/31/2016		0.14 (J)				
9/13/2016				0.11 (J)	<0.1	
9/14/2016	<0.1					0.08 (J)
9/15/2016			<0.1			
11/1/2016				<0.1		
11/2/2016			<0.1			
11/4/2016	<0.1				<0.1	<0.1
11/28/2016		0.12 (J)				
12/15/2016						0.06 (J)
1/10/2017			<0.1			
1/11/2017				0.05 (J)		
1/12/2017	<0.1					
1/16/2017					<0.1	0.1 (J)
2/22/2017		0.09 (J)				
3/2/2017				<0.1	<0.1	
3/3/2017						<0.1
3/7/2017	<0.1					
3/8/2017			<0.1			
4/26/2017			<0.1			
4/27/2017				0.04 (J)	0.01 (J)	
4/28/2017						0.06 (J)
5/2/2017	<0.1					
5/8/2017		0.05 (J)				
5/26/2017						0.09 (J)
6/27/2017	<0.1			<0.1	<0.1	
6/28/2017						0.11 (J)
6/30/2017			<0.1			
7/17/2017		0.14 (J)				
10/3/2017	<0.1			<0.1	<0.1	<0.1
10/5/2017			<0.1			
10/16/2017		0.12 (J)				
2/19/2018		0.17				
3/27/2018			<0.1		<0.1	
3/28/2018						0.31
3/29/2018	<0.1			<0.1		
6/5/2018				0.055 (J)		
6/6/2018					<0.1	
6/7/2018	<0.1					0.11 (J)
6/8/2018			<0.1			
8/6/2018		0.087 (J)				
9/26/2018	<0.1					
10/1/2018			<0.1	<0.1	<0.1	<0.1
2/25/2019		0.14 (J)				
2/26/2019			<0.1			
2/27/2019				0.052 (J)	<0.1	0.12 (J)
3/4/2019	<0.1					
3/28/2019				0.036 (J)	<0.1	
3/29/2019			<0.1			0.13 (J)

Time Series

Constituent: Fluoride, total (mg/L) Analysis Run 12/1/2020 12:19 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-5I (bg)	GWA-2 (bg)	YGWA-14S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-2I (bg)
4/3/2019	<0.1					
6/12/2019		0.12 (J)				
8/19/2019		<0.1				
9/24/2019	<0.1			0.063 (J)	<0.1	0.081 (J)
9/25/2019			<0.1			
10/8/2019		0.052 (J)				
2/10/2020				0.061 (J)	<0.1	
2/11/2020						0.075 (J)
2/12/2020	<0.1		<0.1			
3/17/2020		0.053 (J)				
3/18/2020			<0.1		<0.1	
3/19/2020				0.064 (J)		0.093 (J)
3/24/2020	<0.1					
8/26/2020		0.068 (J)				
9/22/2020	<0.1	0.058 (J)				
9/23/2020				0.058 (J)	<0.1	0.08 (J)
9/25/2020			<0.1			

Time Series

Constituent: Fluoride, total (mg/L) Analysis Run 12/1/2020 12:19 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-30I (bg)	YGWA-3D (bg)	YGWA-3I (bg)	YGWC-46A	YGWC-52
6/1/2016			0.15 (J)		
6/2/2016	<0.1	0.62			
7/25/2016	0.06 (J)		0.14 (J)		
7/26/2016		0.49			
9/1/2016				0.08 (J)	
9/14/2016			0.18 (J)		
9/15/2016		0.54			
9/19/2016	<0.1				
11/1/2016	<0.1	0.68	<0.1		
11/16/2016				0.04 (J)	
1/11/2017		0.49	0.09 (J)		
1/16/2017	<0.1				
2/21/2017	<0.1				
2/27/2017				0.05 (J)	
3/1/2017			<0.1		
3/2/2017		0.48			
4/26/2017	<0.1	0.48	0.08 (J)		
5/8/2017				0.004 (J)	
6/28/2017		0.47	0.12 (J)		
6/30/2017	<0.1				
7/13/2017				0.35	
10/4/2017	<0.1	<0.1	<0.1		
10/11/2017				<0.1	
3/27/2018	<0.1				
3/28/2018		0.56	<0.1		
4/4/2018				<0.1	
6/7/2018		0.48			
6/8/2018			0.2 (J)		
6/11/2018	<0.1				
9/19/2018				<0.1	
10/1/2018		0.44	<0.1		
10/2/2018	<0.1				
2/26/2019	<0.1				
2/27/2019		0.53	0.13 (J)		
3/27/2019				0.12 (J)	
4/1/2019	<0.1	0.45	0.1 (J)		
8/21/2019				<0.1	
9/25/2019	<0.1	0.46	0.1 (J)		
10/9/2019				0.12 (J)	
2/11/2020			0.094 (J)		
2/12/2020	<0.1	0.4			
3/17/2020				<0.1	
3/19/2020	<0.1	0.51	0.11 (J)		
7/6/2020				0.12	
8/27/2020					<0.1
8/28/2020				0.12	
9/22/2020					<0.1
9/23/2020		0.47	0.098 (J)	0.12	
9/24/2020	<0.1				
10/7/2020				0.13	<0.1
11/12/2020				0.084 (J)	<0.1

Time Series

Constituent: Lead (mg/L) Analysis Run 12/1/2020 12:19 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-47 (bg)	YGWC-44	YGWC-45	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)
6/6/2016					<0.005	<0.005
6/7/2016				<0.005		
7/27/2016				<0.005	<0.005	<0.005
8/30/2016	<0.005					
8/31/2016		<0.005	<0.005			
9/16/2016				<0.005		<0.005
9/19/2016					<0.005	
11/3/2016				<0.005	<0.005	<0.005
11/14/2016	<0.005		<0.005			
11/15/2016		<0.005				
1/11/2017				<0.005	<0.005	<0.005
2/24/2017	<0.005					
2/27/2017			<0.005			
2/28/2017		<0.005				
3/1/2017					<0.005	<0.005
3/2/2017				8E-05 (J)		
4/26/2017					<0.005	<0.005
5/2/2017				<0.005		
5/8/2017	<0.005	<0.005				
5/9/2017			0.0001 (J)			
6/28/2017					<0.005	0.0001 (J)
6/29/2017				8E-05 (J)		
7/11/2017	<0.005					
7/13/2017		<0.005	<0.005			
10/10/2017	<0.005	<0.005	<0.005			
3/28/2018				<0.005	<0.005	<0.005
4/2/2018	<0.005					
4/3/2018			<0.005			
4/4/2018		<0.005				
9/19/2018	<0.005	<0.005	<0.005			
3/5/2019				<0.005		<0.005
3/6/2019					<0.005	
4/2/2019				<0.005		
4/3/2019					<0.005	<0.005
8/20/2019	<0.005	<0.005	<0.005			
9/25/2019				<0.005		
9/26/2019					<0.005	<0.005
2/11/2020				<0.005	<0.005	<0.005
3/24/2020				6.4E-05 (J)	7.1E-05 (J)	5.4E-05 (J)
8/27/2020	<0.005	<0.005				
8/28/2020			<0.005			
9/22/2020	<0.005	<0.005				
9/23/2020			<0.005	4.1E-05 (J)	6E-05 (J)	9.7E-05 (J)

Time Series

Constituent: Lead (mg/L) Analysis Run 12/1/2020 12:19 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWA-4I (bg)	YGWA-5D (bg)
6/2/2016					<0.005	<0.005
6/7/2016	<0.005	<0.005				
7/26/2016					<0.005	<0.005
7/27/2016	<0.005					
7/28/2016		<0.005				
9/14/2016					<0.005	<0.005
9/19/2016	<0.005	<0.005				
11/2/2016	0.0013 (J)				<0.005	<0.005
11/3/2016		<0.005				
1/12/2017						<0.005
1/13/2017	<0.005	<0.005			<0.005	
3/6/2017	<0.005	<0.005			<0.005	
3/7/2017						0.0001 (J)
4/26/2017	<0.005	<0.005				
5/1/2017					<0.005	<0.005
6/27/2017						<0.005
6/29/2017	<0.005	<0.005			<0.005	
10/11/2017			0.0001 (J)			
10/12/2017				9E-05 (J)		
11/20/2017			<0.005	<0.005		
1/10/2018				<0.005		
1/11/2018			0.0002 (J)			
2/19/2018				<0.005		
2/20/2018			<0.005			
3/29/2018	<0.005	<0.005			<0.005	<0.005
4/3/2018			<0.005	<0.005		
6/28/2018			<0.005	<0.005		
8/7/2018			<0.005	<0.005		
9/24/2018			<0.005	<0.005		
3/4/2019					<0.005	<0.005
3/5/2019	<0.005	<0.005				
4/2/2019		<0.005				
4/3/2019	<0.005				<0.005	<0.005
8/21/2019			<0.005	<0.005		
9/24/2019		<0.005				<0.005
9/25/2019	<0.005				<0.005	
10/9/2019			<0.005	<0.005		
2/12/2020	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
3/24/2020	0.00011 (J)	<0.005		<0.005		5.4E-05 (J)
3/25/2020			5.1E-05 (J)		<0.005	
9/22/2020					<0.005	4.5E-05 (J)
9/24/2020	9.2E-05 (J)	4.6E-05 (J)	<0.005	3.8E-05 (J)		

Time Series

Constituent: Lead (mg/L) Analysis Run 12/1/2020 12:19 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-5I (bg)	GWA-2 (bg)	YGWA-14S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-2I (bg)
5/1/2007		<0.005				
9/11/2007		<0.005				
3/20/2008		<0.005				
8/27/2008		<0.005				
3/3/2009		<0.005				
11/18/2009		<0.005				
3/3/2010		<0.005				
9/8/2010		<0.005				
3/10/2011		<0.005				
9/8/2011		<0.005				
3/5/2012		<0.005				
9/10/2012		<0.005				
2/6/2013		<0.005				
8/12/2013		<0.005				
2/5/2014		<0.005				
8/5/2014		<0.005				
2/4/2015		<0.005				
8/3/2015		<0.005				
2/16/2016		<0.005				
6/1/2016				0.00056 (J)	<0.005	
6/2/2016	<0.005		<0.005			
7/25/2016					<0.005	
7/26/2016	<0.005		<0.005	<0.005		
8/31/2016		<0.005				
9/13/2016				0.0001 (J)	<0.005	
9/14/2016	<0.005					<0.005
9/15/2016			<0.005			
11/1/2016				<0.005		
11/2/2016			<0.005			
11/4/2016	<0.005				<0.005	<0.005
11/28/2016		<0.005				
12/15/2016						<0.005
1/10/2017			<0.005			
1/11/2017				<0.005		
1/12/2017	<0.005					
1/16/2017					<0.005	<0.005
2/22/2017		<0.005				
3/2/2017				0.0001 (J)	<0.005	
3/3/2017						<0.005
3/7/2017	7E-05 (J)					
3/8/2017			0.0001 (J)			
4/26/2017			<0.005			
4/27/2017				<0.005	<0.005	
4/28/2017						<0.005
5/2/2017	<0.005					
5/8/2017		<0.005				
5/26/2017						<0.005
6/27/2017	<0.005			<0.005	<0.005	
6/28/2017						<0.005
6/30/2017			<0.005			
7/17/2017		<0.005				
10/16/2017		<0.005				

Time Series

Constituent: Lead (mg/L) Analysis Run 12/1/2020 12:19 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-5I (bg)	GWA-2 (bg)	YGWA-14S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-2I (bg)
2/19/2018		<0.005				
3/27/2018			<0.005		<0.005	
3/28/2018						<0.005
3/29/2018	<0.005			<0.005		
8/6/2018		<0.005				
2/25/2019		<0.005				
2/26/2019			<0.005			
2/27/2019				<0.005	<0.005	<0.005
3/4/2019	<0.005					
4/3/2019	<0.005					
6/12/2019		<0.005				
8/19/2019		<0.005				
9/24/2019	9E-05 (J)					
10/8/2019		<0.005				
2/10/2020				4.9E-05 (J)	<0.005	
2/11/2020						<0.005
2/12/2020	<0.005		<0.005			
3/17/2020		<0.005				
3/18/2020			<0.005		<0.005	
3/19/2020				0.00012 (J)		<0.005
3/24/2020	6.8E-05 (J)					
8/26/2020		<0.005				
9/22/2020	4.2E-05 (J)	0.0001 (J)				
9/23/2020				<0.005	0.00021 (J)	0.0011 (J)
9/25/2020			<0.005			

Time Series

Constituent: Lead (mg/L) Analysis Run 12/1/2020 12:19 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-30I (bg)	YGWA-3D (bg)	YGWA-3I (bg)	YGWC-46A	YGWC-52
6/1/2016			<0.005		
6/2/2016	<0.005	0.00056 (J)			
7/25/2016	<0.005		<0.005		
7/26/2016		0.0001 (J)			
9/1/2016				<0.005	
9/14/2016			<0.005		
9/15/2016		0.0002 (J)			
9/19/2016	<0.005				
11/1/2016	<0.005	<0.005	<0.005		
11/16/2016				<0.005	
1/11/2017		<0.005	<0.005		
1/16/2017	<0.005				
2/21/2017	<0.005				
2/27/2017				<0.005	
3/1/2017			<0.005		
3/2/2017		0.0002 (J)			
4/26/2017	<0.005	<0.005	<0.005		
5/8/2017				<0.005	
6/28/2017		<0.005	<0.005		
6/30/2017	<0.005				
7/13/2017				<0.005	
10/11/2017				<0.005	
3/27/2018	<0.005				
3/28/2018		<0.005	<0.005		
4/4/2018				<0.005	
9/19/2018				<0.005	
2/26/2019	<0.005				
2/27/2019		<0.005	<0.005		
8/21/2019				<0.005	
2/11/2020			<0.005		
2/12/2020	<0.005	<0.005			
3/19/2020	<0.005	0.00017 (J)	<0.005		
7/6/2020				<0.005	
8/27/2020					9.2E-05 (J)
8/28/2020				<0.005	
9/22/2020					6E-05 (J)
9/23/2020		<0.005	0.00015 (J)	<0.005	
9/24/2020	<0.005				
10/7/2020				<0.005	<0.005
11/12/2020				4.4E-05 (J)	6.4E-05 (J)

Time Series

Constituent: Lithium (mg/L) Analysis Run 12/1/2020 12:19 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-47 (bg)	YGWC-44	YGWC-45	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)
6/6/2016					0.0088	0.015
6/7/2016				<0.03		
7/27/2016				<0.03	0.0087 (J)	0.0049 (J)
8/30/2016	0.0061 (J)					
8/31/2016		0.0115 (J)	0.0147 (J)			
9/16/2016				<0.03		0.0031 (J)
9/19/2016					0.0043 (J)	
11/3/2016				<0.03	<0.03	0.0021 (J)
11/14/2016	0.0064 (J)		0.0175 (J)			
11/15/2016		0.0148 (J)				
1/11/2017				0.0035 (J)	0.0052 (J)	0.0025 (J)
2/24/2017	0.0049 (J)					
2/27/2017			0.0135 (J)			
2/28/2017		0.0124 (J)				
3/1/2017					0.0053 (J)	0.0029 (J)
3/2/2017				<0.03		
4/26/2017					0.0041 (J)	0.0019 (J)
5/2/2017				<0.03		
5/8/2017	0.0053 (J)	0.0132 (J)				
5/9/2017			0.0136 (J)			
6/28/2017					0.0039 (J)	0.0016 (J)
6/29/2017				<0.03		
7/11/2017	0.0051 (J)					
7/13/2017		0.0124 (J)	0.0129 (J)			
10/10/2017	0.0043 (J)	0.0123 (J)	0.015 (J)			
3/28/2018				<0.03	0.0041 (J)	0.0024 (J)
4/2/2018	0.0045 (J)					
4/3/2018			0.014 (J)			
4/4/2018		0.014 (J)				
6/7/2018					0.0032 (J)	
6/11/2018				<0.03		0.0014 (J)
9/19/2018	0.0043 (J)	0.013 (J)	0.012 (J)			
9/25/2018				<0.03	0.0036 (J)	0.0016 (J)
3/5/2019				<0.03		0.0031 (J)
3/6/2019					0.0033 (J)	
4/2/2019				<0.03		
4/3/2019					0.0035 (J)	0.0028 (J)
8/20/2019	0.0036 (J)	0.013 (J)	0.012 (J)			
9/25/2019				<0.03		
9/26/2019					0.0032 (J)	0.0029 (J)
10/8/2019	0.0036 (J)	0.012 (J)				
10/9/2019			0.012 (J)			
2/11/2020				<0.03	0.0033 (J)	0.005 (J)
3/17/2020	0.0046 (J)	0.013 (J)	0.014 (J)			
3/24/2020				0.0034 (J)	0.0033 (J)	0.0035 (J)
8/27/2020	0.0039 (J)	0.013 (J)				
8/28/2020			0.012 (J)			
9/22/2020	0.0036 (J)	0.013 (J)				
9/23/2020			0.012 (J)	<0.03	0.003 (J)	0.0022 (J)

Time Series

Constituent: Lithium (mg/L) Analysis Run 12/1/2020 12:19 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWA-4I (bg)	YGWA-5D (bg)
6/2/2016					0.013	0.0049 (J)
6/7/2016	<0.03	0.0055				
7/26/2016					0.0123 (J)	0.0063 (J)
7/27/2016	<0.03					
7/28/2016		0.0045 (J)				
9/14/2016					0.0137 (J)	0.0058 (J)
9/19/2016	<0.03	0.0054 (J)				
11/2/2016	<0.03				0.0136 (J)	0.0053 (J)
11/3/2016		<0.03				
1/12/2017						0.0054 (J)
1/13/2017	<0.03	0.0062 (J)			0.0121 (J)	
3/6/2017	<0.03	0.0059 (J)			0.0143 (J)	
3/7/2017						0.0056 (J)
4/26/2017	<0.03	0.0054 (J)				
5/1/2017					0.0132 (J)	0.0031 (J)
6/27/2017						0.0018 (J)
6/29/2017	<0.03	0.0047 (J)			0.0145 (J)	
10/11/2017			0.0018 (J)			
10/12/2017				<0.03		
11/20/2017			0.0018 (J)	<0.03		
1/10/2018				<0.03		
1/11/2018			0.0019 (J)			
2/19/2018				<0.03		
2/20/2018			<0.03			
3/29/2018	<0.03	0.0062 (J)			0.014 (J)	0.0058 (J)
4/3/2018			0.0022 (J)	<0.03		
6/5/2018		0.0061 (J)				
6/6/2018	<0.03					0.0068 (J)
6/7/2018					0.013 (J)	
6/28/2018			0.0026 (J)	<0.03		
8/7/2018			0.0024 (J)	<0.03		
9/24/2018			0.0022 (J)	<0.03		
9/25/2018	<0.03	0.0062 (J)				
9/26/2018					0.014 (J)	0.0065 (J)
3/4/2019					0.015 (J)	0.0065 (J)
3/5/2019	<0.03	0.0053 (J)				
4/2/2019		0.0051 (J)				
4/3/2019	<0.03				0.014 (J)	0.007 (J)
8/21/2019			0.0035 (J)	<0.03		
9/24/2019		0.0068 (J)				0.0065 (J)
9/25/2019	<0.03				0.014 (J)	
10/9/2019			0.0036 (J)	<0.03		
2/12/2020	<0.03	0.0065 (J)	0.0041 (J)	<0.03	0.011 (J)	0.0066 (J)
3/24/2020	<0.03	0.0064 (J)		<0.03		0.0064 (J)
3/25/2020			0.0049 (J)		0.014 (J)	
9/22/2020					0.013 (J)	0.0066 (J)
9/24/2020	<0.03	0.0069 (J)	0.0054 (J)	<0.03		

Time Series

Constituent: Lithium (mg/L) Analysis Run 12/1/2020 12:19 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-5I (bg)	GWA-2 (bg)	YGWA-14S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-2I (bg)
6/1/2016				0.015	<0.03	
6/2/2016	<0.03		<0.03			
7/25/2016					0.002 (J)	
7/26/2016	0.0027 (J)		<0.03	0.0135 (J)		
8/31/2016		<0.03				
9/13/2016				0.0112 (J)	<0.03	
9/14/2016	0.0029 (J)					0.004 (J)
9/15/2016			<0.03			
11/1/2016				0.0163 (J)		
11/2/2016			<0.03			
11/4/2016	<0.03				<0.03	<0.03
11/28/2016		<0.03				
12/15/2016						0.0026 (J)
1/10/2017			<0.03			
1/11/2017				0.0166 (J)		
1/12/2017	0.0032 (J)					
1/16/2017					0.0023 (J)	0.0023 (J)
2/22/2017		<0.03				
3/2/2017				0.0159 (J)	0.0025 (J)	
3/3/2017						0.0013 (J)
3/7/2017	0.0035 (J)					
3/8/2017			<0.03			
4/26/2017			<0.03			
4/27/2017				0.0137 (J)	0.0027 (J)	
4/28/2017						0.0031 (J)
5/2/2017	0.0031 (J)					
5/8/2017		0.0014 (J)				
5/26/2017						0.0038 (J)
6/27/2017	0.0029 (J)			0.0094 (J)	0.0024 (J)	
6/28/2017						0.0026 (J)
6/30/2017			<0.03			
7/17/2017		<0.03				
10/16/2017		0.0016 (J)				
2/19/2018		<0.03				
3/27/2018			<0.03		0.0023 (J)	
3/28/2018						0.0025 (J)
3/29/2018	0.0034 (J)			0.0078 (J)		
6/5/2018				0.0079 (J)		
6/6/2018					0.0024 (J)	
6/7/2018	0.0032 (J)					0.0017 (J)
6/8/2018			<0.03			
8/6/2018		<0.03				
9/26/2018	0.0032 (J)					
10/1/2018			<0.03	0.0053 (J)	0.0023 (J)	<0.03
2/26/2019			<0.03			
2/27/2019				0.0093 (J)	0.0023 (J)	0.0011 (J)
3/4/2019	0.0032 (J)					
3/28/2019				0.013 (J)	0.0022 (J)	
3/29/2019			<0.03			0.0016 (J)
4/3/2019	0.0035 (J)					
8/19/2019		0.0019 (J)				
9/24/2019	0.0031 (J)			0.0046 (J)	0.0023 (J)	0.0011 (J)

Time Series

Constituent: Lithium (mg/L) Analysis Run 12/1/2020 12:19 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-5I (bg)	GWA-2 (bg)	YGWA-14S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-2I (bg)
9/25/2019			<0.03			
10/8/2019		0.0015 (J)				
2/10/2020				0.011 (J)	0.0023 (J)	
2/11/2020						0.0012 (J)
2/12/2020	0.0032 (J)		<0.03			
3/17/2020		0.0017 (J)				
3/18/2020			<0.03		0.0024 (J)	
3/19/2020				0.013 (J)		0.0022 (J)
3/24/2020	0.0033 (J)					
8/26/2020		0.0032 (J)				
9/22/2020	0.0034 (J)	0.0029 (J)				
9/23/2020				0.014 (J)	0.0024 (J)	0.0016 (J)
9/25/2020			<0.03			

Time Series

Constituent: Lithium (mg/L) Analysis Run 12/1/2020 12:19 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-30I (bg)	YGWA-3D (bg)	YGWA-3I (bg)	YGWC-46A	YGWC-52
6/1/2016			0.01		
6/2/2016	<0.03	0.018			
7/25/2016	<0.03		0.0132 (J)		
7/26/2016		0.0221 (J)			
9/1/2016				0.0077 (J)	
9/14/2016			0.012 (J)		
9/15/2016		0.0197 (J)			
9/19/2016	<0.03				
11/1/2016	<0.03	0.0194 (J)	0.0115 (J)		
11/16/2016				0.0075 (J)	
1/11/2017		0.0177 (J)	0.0085 (J)		
1/16/2017	<0.03				
2/21/2017	<0.03				
2/27/2017				0.0084 (J)	
3/1/2017			0.0114 (J)		
3/2/2017		0.0185 (J)			
4/26/2017	<0.03	0.0183 (J)	0.0092 (J)		
5/8/2017				0.0087 (J)	
6/28/2017		0.0173 (J)	0.0085 (J)		
6/30/2017	<0.03				
7/13/2017				0.0104 (J)	
10/11/2017				0.0099 (J)	
3/27/2018	0.0011 (J)				
3/28/2018		0.02 (J)	0.013 (J)		
4/4/2018				0.012 (J)	
6/7/2018		0.02 (J)			
6/8/2018			0.012 (J)		
6/11/2018	0.0012 (J)				
9/19/2018				0.011 (J)	
10/1/2018		0.02 (J)	0.011 (J)		
10/2/2018	<0.03				
2/26/2019	0.0011 (J)				
2/27/2019		0.021 (J)	0.014 (J)		
4/1/2019	0.001 (J)	0.021 (J)	0.013 (J)		
8/21/2019				0.0076 (J)	
9/25/2019	0.0011 (J)	0.02 (J)	0.01 (J)		
10/9/2019				0.0078 (J)	
2/11/2020			0.013 (J)		
2/12/2020	0.0013 (J)	0.019 (J)			
3/17/2020				0.0071 (J)	
3/19/2020	0.0012 (J)	0.023 (J)	0.014 (J)		
7/6/2020				0.011 (J)	
8/27/2020					0.0048 (J)
8/28/2020				0.012 (J)	
9/22/2020					0.0046 (J)
9/23/2020		0.023 (J)	0.013 (J)	0.013 (J)	
9/24/2020	0.0011 (J)				
10/7/2020				0.011 (J)	0.0041 (J)
11/12/2020				0.014 (J)	0.0044 (J)

Time Series

Constituent: Mercury (mg/L) Analysis Run 12/1/2020 12:19 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-47 (bg)	YGWC-44	YGWC-45	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)
6/6/2016					<0.0005	<0.0005
6/7/2016				9.5E-05 (J)		
7/27/2016				<0.0005	<0.0005	<0.0005
8/30/2016	<0.0005					
8/31/2016		<0.0005	<0.0005			
9/16/2016				<0.0005		<0.0005
9/19/2016					<0.0005	
11/3/2016				<0.0005	<0.0005	<0.0005
11/14/2016	<0.0005		<0.0005			
11/15/2016		<0.0005				
1/11/2017				<0.0005	<0.0005	<0.0005
2/24/2017	<0.0005					
2/27/2017			<0.0005			
2/28/2017		<0.0005				
3/1/2017					<0.0005	<0.0005
3/2/2017				<0.0005		
4/26/2017					<0.0005	<0.0005
5/2/2017				<0.0005		
5/8/2017	<0.0005	<0.0005				
5/9/2017			<0.0005			
6/28/2017					<0.0005	<0.0005
6/29/2017				<0.0005		
7/11/2017	<0.0005					
7/13/2017		<0.0005	<0.0005			
10/10/2017	<0.0005	<0.0005	<0.0005			
3/28/2018				<0.0005	<0.0005	<0.0005
4/2/2018	<0.0005					
4/3/2018			<0.0005			
4/4/2018		<0.0005				
9/19/2018	5.3E-05 (J)	6E-05 (J)	7.1E-05 (J)			
9/25/2018				<0.0005	<0.0005	<0.0005
3/5/2019				<0.0005		<0.0005
3/6/2019					<0.0005	
8/20/2019	<0.0005	<0.0005	<0.0005			
2/11/2020				<0.0005	<0.0005	<0.0005
8/27/2020	<0.0005	<0.0005				
8/28/2020			<0.0005			

Time Series

Constituent: Mercury (mg/L) Analysis Run 12/1/2020 12:19 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWA-4I (bg)	YGWA-5D (bg)
6/2/2016					<0.0005	<0.0005
6/7/2016	9.6E-05 (J)	9.6E-05 (J)				
7/26/2016					<0.0005	<0.0005
7/27/2016	<0.0005					
7/28/2016		<0.0005				
9/14/2016					<0.0005	<0.0005
9/19/2016	<0.0005	<0.0005				
11/2/2016	<0.0005				<0.0005	<0.0005
11/3/2016		<0.0005				
1/12/2017						<0.0005
1/13/2017	<0.0005	<0.0005			<0.0005	
3/6/2017	<0.0005	<0.0005			<0.0005	
3/7/2017						<0.0005
4/26/2017	<0.0005	<0.0005				
5/1/2017					<0.0005	<0.0005
6/27/2017						<0.0005
6/29/2017	<0.0005	<0.0005			<0.0005	
10/11/2017			<0.0005			
10/12/2017				<0.0005		
11/20/2017			7E-05 (J)	8E-05 (J)		
1/10/2018				<0.0005		
1/11/2018			<0.0005			
2/19/2018				<0.0005		
2/20/2018			<0.0005			
3/29/2018	<0.0005	<0.0005			<0.0005	<0.0005
4/3/2018			<0.0005	<0.0005		
6/28/2018			<0.0005	3.6E-05 (J)		
8/7/2018			<0.0005	<0.0005		
9/24/2018			<0.0005	<0.0005		
9/25/2018	<0.0005	<0.0005				
9/26/2018					<0.0005	<0.0005
3/4/2019					<0.0005	<0.0005
3/5/2019	<0.0005	<0.0005				
8/21/2019			<0.0005	<0.0005		
2/12/2020	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005

Time Series

Constituent: Mercury (mg/L) Analysis Run 12/1/2020 12:19 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-5I (bg)	GWA-2 (bg)	YGWA-14S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-2I (bg)
5/1/2007		<0.0005				
9/11/2007		<0.0005				
3/20/2008		<0.0005				
8/27/2008		<0.0005				
3/3/2009		<0.0005				
11/18/2009		<0.0005				
3/3/2010		<0.0005				
9/8/2010		<0.0005				
3/10/2011		<0.0005				
9/8/2011		<0.0005				
3/5/2012		<0.0005				
9/10/2012		<0.0005				
2/6/2013		<0.0005				
8/12/2013		<0.0005				
2/5/2014		<0.0005				
8/5/2014		<0.0005				
2/4/2015		<0.0005				
8/3/2015		<0.0005				
2/16/2016		1.36E-05 (J)				
6/1/2016				<0.0005	<0.0005	
6/2/2016	<0.0005		<0.0005			
7/25/2016					<0.0005	
7/26/2016	<0.0005		<0.0005	<0.0005		
8/31/2016		<0.0005				
9/13/2016				<0.0005	<0.0005	
9/14/2016	<0.0005					<0.0005
9/15/2016			<0.0005			
11/1/2016				<0.0005		
11/2/2016			<0.0005			
11/4/2016	<0.0005				<0.0005	<0.0005
11/28/2016		<0.0005				
12/15/2016						<0.0005
1/10/2017			<0.0005			
1/11/2017				<0.0005		
1/12/2017	<0.0005					
1/16/2017					<0.0005	<0.0005
2/22/2017		<0.0005				
3/2/2017				<0.0005	<0.0005	
3/3/2017						<0.0005
3/7/2017	<0.0005					
3/8/2017			<0.0005			
4/26/2017			<0.0005			
4/27/2017				<0.0005	<0.0005	
4/28/2017						<0.0005
5/2/2017	<0.0005					
5/8/2017		<0.0005				
5/26/2017						<0.0005
6/27/2017	<0.0005			<0.0005	<0.0005	
6/28/2017						<0.0005
6/30/2017			<0.0005			
7/17/2017		<0.0005				
10/16/2017		<0.0005				

Time Series

Constituent: Mercury (mg/L) Analysis Run 12/1/2020 12:19 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-5I (bg)	GWA-2 (bg)	YGWA-14S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-2I (bg)
2/19/2018		<0.0005				
3/27/2018			<0.0005		<0.0005	
3/28/2018						<0.0005
3/29/2018	<0.0005			<0.0005		
8/6/2018		<0.0005				
9/26/2018	<0.0005					
2/25/2019		7.4E-05 (J)				
2/26/2019			6.1E-05 (J)			
2/27/2019				5.1E-05 (J)	5.4E-05 (J)	<0.0005
3/4/2019	<0.0005					
3/28/2019				4E-05 (J)	<0.0005	
3/29/2019			<0.0005			<0.0005
6/12/2019		<0.0005				
8/19/2019		<0.0005				
9/24/2019				<0.0005	<0.0005	<0.0005
9/25/2019			<0.0005			
10/8/2019		<0.0005				
2/10/2020				<0.0005	<0.0005	
2/11/2020						<0.0005
2/12/2020	<0.0005		<0.0005			
5/6/2020		<0.0005				
8/26/2020		<0.0005				
9/22/2020		<0.0005				

Time Series

Constituent: Mercury (mg/L) Analysis Run 12/1/2020 12:19 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-30I (bg)	YGWA-3D (bg)	YGWA-3I (bg)	YGWC-46A	YGWC-52
6/1/2016			<0.0005		
6/2/2016	<0.0005	<0.0005			
7/25/2016	<0.0005		<0.0005		
7/26/2016		<0.0005			
9/1/2016				<0.0005	
9/14/2016			<0.0005		
9/15/2016		<0.0005			
9/19/2016	<0.0005				
11/1/2016	<0.0005	<0.0005	<0.0005		
11/16/2016				<0.0005	
1/11/2017		<0.0005	<0.0005		
1/16/2017	<0.0005				
2/21/2017	<0.0005				
2/27/2017				<0.0005	
3/1/2017			<0.0005		
3/2/2017		<0.0005			
4/26/2017	<0.0005	<0.0005	<0.0005		
5/8/2017				<0.0005	
6/28/2017		<0.0005	<0.0005		
6/30/2017	<0.0005				
7/13/2017				<0.0005	
10/11/2017				<0.0005	
3/27/2018	<0.0005				
3/28/2018		<0.0005	<0.0005		
4/4/2018				<0.0005	
9/19/2018				7E-05 (J)	
2/26/2019	6.8E-05 (J)				
2/27/2019		6.2E-05 (J)	6.1E-05 (J)		
4/1/2019	8.2E-05 (J)	9.6E-05 (J)	8.4E-05 (J)		
8/21/2019				<0.0005	
9/25/2019	<0.0005	<0.0005	<0.0005		
2/11/2020			<0.0005		
2/12/2020	<0.0005	<0.0005			
7/6/2020				<0.0005	
8/27/2020					<0.0005
8/28/2020				<0.0005	
11/12/2020				<0.0005	<0.0005

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 12/1/2020 12:19 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-47 (bg)	YGWC-44	YGWC-45	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)
6/6/2016					<0.01	<0.01
6/7/2016				<0.01		
7/27/2016				<0.01	<0.01	<0.01
8/30/2016	<0.01					
8/31/2016		<0.01	0.0024 (J)			
9/16/2016				<0.01		<0.01
9/19/2016					<0.01	
11/3/2016				<0.01	<0.01	<0.01
11/14/2016	<0.01		<0.01			
11/15/2016		<0.01				
1/11/2017				<0.01	<0.01	<0.01
2/24/2017	<0.01					
2/27/2017			0.0018 (J)			
2/28/2017		0.0005 (J)				
3/1/2017					<0.01	<0.01
3/2/2017				<0.01		
4/26/2017					<0.01	<0.01
5/2/2017				<0.01		
5/8/2017	<0.01	<0.01				
5/9/2017			0.0015 (J)			
6/28/2017					<0.01	<0.01
6/29/2017				<0.01		
7/11/2017	<0.01					
7/13/2017		<0.01	0.0015 (J)			
10/10/2017	<0.01	<0.01	0.0015 (J)			
3/28/2018				<0.01	<0.01	<0.01
4/2/2018	<0.01					
4/3/2018			<0.01			
4/4/2018		<0.01				
9/19/2018	<0.01	<0.01	<0.01			
3/5/2019				<0.01		<0.01
3/6/2019					<0.01	
8/20/2019	<0.01	<0.01	0.0011 (J)			
10/8/2019	<0.01	<0.01				
10/9/2019			0.0012 (J)			
2/11/2020				<0.01	<0.01	<0.01
3/17/2020	<0.01	<0.01	0.0016 (J)			
3/24/2020				<0.01	<0.01	<0.01
8/27/2020	<0.01	<0.01				
8/28/2020			0.0013 (J)			
9/22/2020	<0.01	<0.01				
9/23/2020			0.0011 (J)	<0.01	<0.01	<0.01

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 12/1/2020 12:19 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWA-4I (bg)	YGWA-5D (bg)
6/2/2016					<0.01	0.0035 (J)
6/7/2016	<0.01	<0.01				
7/26/2016					<0.01	0.0042 (J)
7/27/2016	<0.01					
7/28/2016		<0.01				
9/14/2016					<0.01	0.0041 (J)
9/19/2016	<0.01	<0.01				
11/2/2016	<0.01				<0.01	0.0039 (J)
11/3/2016		<0.01				
1/12/2017						0.0041 (J)
1/13/2017	<0.01	<0.01			<0.01	
3/6/2017	<0.01	0.0007 (J)			<0.01	
3/7/2017						0.0047 (J)
4/26/2017	<0.01	0.0008 (J)				
5/1/2017					<0.01	0.0045 (J)
6/27/2017						0.004 (J)
6/29/2017	<0.01	<0.01			<0.01	
10/11/2017			0.0094 (J)			
10/12/2017				<0.01		
11/20/2017			0.0081 (J)	<0.01		
1/10/2018				<0.01		
1/11/2018			0.0074 (J)			
2/19/2018				<0.01		
2/20/2018			<0.01			
3/29/2018	<0.01	<0.01			<0.01	<0.01
4/3/2018			0.006 (J)	<0.01		
6/28/2018			0.005 (J)	<0.01		
8/7/2018			0.0045 (J)	<0.01		
9/24/2018			0.0035 (J)	<0.01		
3/4/2019					<0.01	<0.01
3/5/2019	<0.01	<0.01				
8/21/2019			0.0021 (J)	<0.01		
10/9/2019			0.0018 (J)	<0.01		
2/12/2020	<0.01	<0.01	0.0025 (J)	<0.01	<0.01	0.0011 (J)
3/24/2020	<0.01	<0.01		<0.01		0.0011 (J)
3/25/2020			0.002 (J)		<0.01	
9/22/2020					<0.01	0.00099 (J)
9/24/2020	<0.01	<0.01	0.0016 (J)	<0.01		

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 12/1/2020 12:19 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-5I (bg)	GWA-2 (bg)	YGWA-14S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-2I (bg)
6/1/2016				0.014 (J)	0.012 (J)	
6/2/2016	<0.01		<0.01			
7/25/2016					0.0098 (J)	
7/26/2016	<0.01		<0.01	0.0132		
8/31/2016		<0.01				
9/13/2016				0.0127	0.01 (J)	
9/14/2016	<0.01					0.0039 (J)
9/15/2016			<0.01			
11/1/2016				0.0092 (J)		
11/2/2016			<0.01			
11/4/2016	<0.01				0.01	0.0077 (J)
11/28/2016		<0.01				
12/15/2016						0.0066 (J)
1/10/2017			<0.01			
1/11/2017				0.0093 (J)		
1/12/2017	<0.01					
1/16/2017					0.0086 (J)	0.0056 (J)
2/22/2017		<0.01				
3/2/2017				0.0099 (J)	0.01	
3/3/2017						0.0049 (J)
3/7/2017	<0.01					
3/8/2017			<0.01			
4/26/2017			<0.01			
4/27/2017				0.0103	0.0101	
4/28/2017						0.004 (J)
5/2/2017	<0.01					
5/8/2017		<0.01				
5/26/2017						0.0029 (J)
6/27/2017	<0.01			0.0097 (J)	0.0093 (J)	
6/28/2017						0.0036 (J)
6/30/2017			<0.01			
7/17/2017		<0.01				
10/16/2017		<0.01				
2/19/2018		<0.01				
3/27/2018			<0.01		0.0074 (J)	
3/28/2018						0.0038 (J)
3/29/2018	<0.01			0.0076 (J)		
6/5/2018				0.0092 (J)		
6/6/2018					0.0073 (J)	
6/7/2018						0.004 (J)
6/8/2018			<0.01			
8/6/2018		<0.01				
10/1/2018			<0.01	0.0085 (J)	0.0076 (J)	0.0042 (J)
2/26/2019			<0.01			
2/27/2019				0.0087 (J)	0.0078 (J)	0.0041 (J)
3/4/2019	<0.01					
3/28/2019				0.0092 (J)	0.0082 (J)	
3/29/2019			<0.01			0.0041 (J)
8/19/2019		<0.01				
9/24/2019				0.0072 (J)	0.0074 (J)	0.0054 (J)
9/25/2019			<0.01			
2/10/2020				0.0087 (J)	0.0062 (J)	

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 12/1/2020 12:19 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-5I (bg)	GWA-2 (bg)	YGWA-14S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-2I (bg)
2/11/2020						0.0057 (J)
2/12/2020	<0.01		<0.01			
3/18/2020			<0.01		0.0056 (J)	
3/19/2020				0.0088 (J)		0.0046 (J)
3/24/2020	<0.01					
8/26/2020		<0.01				
9/22/2020	<0.01					
9/23/2020				0.008 (J)	0.0059 (J)	0.0071 (J)
9/25/2020			<0.01			

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 12/1/2020 12:19 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-30I (bg)	YGWA-3D (bg)	YGWA-3I (bg)	YGWC-46A	YGWC-52
6/1/2016			0.0055 (J)		
6/2/2016	<0.01	0.0093 (J)			
7/25/2016	<0.01		0.0037 (J)		
7/26/2016		0.0113			
9/1/2016				<0.01	
9/14/2016			0.0034 (J)		
9/15/2016		0.0112			
9/19/2016	<0.01				
11/1/2016	<0.01	0.0099 (J)	0.0025 (J)		
11/16/2016				<0.01	
1/11/2017		0.0093 (J)	0.0033 (J)		
1/16/2017	<0.01				
2/21/2017	<0.01				
2/27/2017				<0.01	
3/1/2017			0.0044 (J)		
3/2/2017		0.0103			
4/26/2017	<0.01	0.01	0.0075 (J)		
5/8/2017				0.0008 (J)	
6/28/2017		0.0102	0.008 (J)		
6/30/2017	<0.01				
7/13/2017				0.0015 (J)	
10/11/2017				0.002 (J)	
3/27/2018	<0.01				
3/28/2018		0.011	0.0025 (J)		
4/4/2018				0.0021 (J)	
6/7/2018		0.011			
6/8/2018			0.0041 (J)		
6/11/2018	<0.01				
9/19/2018				0.0039 (J)	
10/1/2018		0.012	0.0037 (J)		
10/2/2018	<0.01				
2/26/2019	<0.01				
2/27/2019		0.011	0.0027 (J)		
4/1/2019	<0.01	0.012	0.0021 (J)		
8/21/2019				0.0012 (J)	
9/25/2019	<0.01	0.012	0.0087 (J)		
10/9/2019				0.0013 (J)	
2/11/2020			0.003 (J)		
2/12/2020	<0.01	0.013			
3/17/2020				0.0015 (J)	
3/19/2020	<0.01	0.013	0.0043 (J)		
7/6/2020				0.0026 (J)	
8/27/2020					<0.01
8/28/2020				0.003 (J)	
9/22/2020					<0.01
9/23/2020		0.012	0.01	0.0025 (J)	
9/24/2020	<0.01				
10/7/2020				0.0024 (J)	<0.01
11/12/2020				0.0019 (J)	<0.01

Time Series

Constituent: pH, Field (S.U.) Analysis Run 12/1/2020 12:19 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-47 (bg)	YGWC-44	YGWC-45	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)
6/6/2016					6.17	5.71
6/7/2016				5.62		
7/27/2016				5.59	6.14	5.46
8/30/2016	5.75					
8/31/2016		6.01	7.15			
9/16/2016				5.58		
9/19/2016					6.04	5.59
11/3/2016				5.59	5.97	5.39
11/14/2016	5.59		6.96			
11/15/2016		5.91				
1/11/2017				5.59	6.05	5.48
2/24/2017	5.49					
2/27/2017			6.79			
2/28/2017		5.85				
3/1/2017					5.94	5.41
3/2/2017				5.54		
4/26/2017					5.99	5.4
5/2/2017				5.47		
5/8/2017	5.58	5.91				
5/9/2017			6.9			
6/28/2017					6	5.36
6/29/2017				5.56		
7/11/2017	5.58					
7/13/2017		5.8	6.77			
10/4/2017				5.57		5.32
10/5/2017					6.11	
10/10/2017	5.49	5.76	6.9			
3/28/2018				5.59	6.1	5.34
4/2/2018	6.3 (O)					
4/3/2018			6.44			
4/4/2018		5.77				
6/7/2018					5.98	
6/11/2018				5.58		5.28
9/19/2018	5.48	5.77	6.47			
9/25/2018				5.59	5.81	4.86
3/5/2019				5.48		5.26
3/6/2019					5.99	
3/27/2019	5.83	6.1	7.18			
4/2/2019				5.74		
4/3/2019					6.29	5.47
8/20/2019	5.58	5.78	6.48			
9/25/2019				5.49		
9/26/2019					6.04	5.2
10/8/2019	5.59	5.84				
10/9/2019			6.55			
2/11/2020				5.58	6.07	5.3
3/17/2020	5.57	5.9	6.69			
3/24/2020				5.57	5.98	5.33
8/27/2020	4.88	5.75				
8/28/2020			6.84			
9/22/2020	5.46	5.53				
9/23/2020			6.57	5.58	6.01	5.29

Time Series

Constituent: pH, Field (S.U.) Analysis Run 12/1/2020 12:19 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWA-4I (bg)	YGWA-5D (bg)
6/2/2016					6.36	7.67
6/7/2016	5.77	6.1				
7/26/2016					6.22	7.66
7/27/2016	5.79					
7/28/2016		6.12				
9/14/2016					6.23	7.6
9/19/2016	5.73	6.12				
11/2/2016	5.67				6.08	7.35
11/3/2016		6.07				
1/12/2017						7.49
1/13/2017	5.79	6.41			6.19	
3/6/2017	5.63	6.34			6.2	
3/7/2017						7.43
4/26/2017	5.66	6.32				
5/1/2017					6.21	7.22
6/27/2017						7.32
6/29/2017	5.85	6.47			6.21	
10/3/2017		6.56				7.48
10/4/2017	5.83					
10/5/2017					6.16	
10/11/2017			6.4			
10/12/2017				5.43		
11/20/2017			6.33	5.1		
1/10/2018				4.97		
1/11/2018			6.29			
2/19/2018				5.6		
2/20/2018			7.22			
3/29/2018	5.93	6.75			6.09	7.02
4/3/2018			6.87	5.84		
6/5/2018		6.09				
6/6/2018	5.86					7.43
6/7/2018					6.12	
6/28/2018			6.18	5.24		
8/7/2018			6.08	5.18		
9/24/2018			5.81	5.14		
9/25/2018	5.84	6.67				
9/26/2018					5.84	7.13
3/4/2019					6.18	7.46
3/5/2019	6.07	7.22				
3/26/2019				5.3		
3/27/2019			5.84			
4/2/2019		6.94				
4/3/2019	5.71				6.43	7.11
8/21/2019			5.96	5.26		
9/24/2019		6.87				6.93
9/25/2019	5.86				6.2	
10/9/2019			5.81	5.22		
2/12/2020	6	7.13	5.97	5.3	6.15	7.52
3/24/2020	5.86	6.35		5.29		7.34
3/25/2020			5.78		6.26	
9/22/2020					5.8	7.19
9/24/2020	5.8	6.7	5.7	5.43		

Time Series

Constituent: pH, Field (S.U.) Analysis Run 12/1/2020 12:19 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-5I (bg)	GWA-2 (bg)	YGWA-14S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-2I (bg)
8/27/2008		6.53				
3/3/2009		6.35				
11/18/2009		6.47				
3/3/2010		6.53				
3/10/2011		5.83				
9/8/2011		5.69				
3/5/2012		6.27				
9/10/2012		6.23				
2/6/2013		7.56				
8/12/2013		6.68				
2/5/2014		6.32				
8/3/2015		6.13 (D)				
2/16/2016		5.64				
6/1/2016				7.46	6.33	
6/2/2016	5.75		5.46			
7/25/2016					6.21	
7/26/2016	5.72		5.45	7.43		
9/13/2016				7.44	6.16	7.41
9/14/2016	5.74					
9/15/2016			5.45			
11/1/2016				7.24		
11/2/2016			5.41			
11/4/2016	5.61				6.29	7.12
11/28/2016		6.23				
12/15/2016						7.24
1/10/2017			5.37			
1/11/2017				7.3		
1/12/2017	5.71					
1/16/2017					6.29	7.24
2/22/2017		6.21				
3/2/2017				7.23	6.28	
3/3/2017						7.22
3/7/2017	5.66					
3/8/2017			5.41			
4/26/2017			5.02			
4/27/2017				6.99	6.09	
4/28/2017						7.21
5/2/2017	5.65					
5/8/2017		6.12				
5/26/2017						7.13
6/27/2017	5.7			6.87	6.21	
6/28/2017						7.06
6/30/2017			5.39			
7/17/2017		6.03				
10/3/2017	5.79			6.81	5.98	6.99
10/5/2017			5.49			
10/16/2017		6.12				
2/19/2018		6.13				
3/27/2018			5.47		6.25	
3/28/2018						7.3
3/29/2018	5.63			7.38		
6/5/2018				7.16		

Time Series

Constituent: pH, Field (S.U.) Analysis Run 12/1/2020 12:19 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-5I (bg)	GWA-2 (bg)	YGWA-14S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-2I (bg)
6/6/2018					6.17	
6/7/2018	5.63					7.29
6/8/2018			5.45			
8/6/2018		6.01				
9/26/2018	5.63					
10/1/2018			5.39	6.8	5.9	7.07
2/25/2019		6.51				
2/26/2019			5.46			
2/27/2019				6.84	5.8	7.27
3/4/2019	5.75					
3/28/2019				6.99	6.15	
3/29/2019			5.34			7.06
4/3/2019	5.63					
6/12/2019		6.3				
8/19/2019		6.23				
9/24/2019	5.6			7.07	6.23	7.01
9/25/2019			5.19			
10/8/2019		6.28				
2/10/2020				7.2	6.1	
2/11/2020						7.38
2/12/2020	5.83		5.48			
3/17/2020		6.14				
3/18/2020			5.38		6.19	
3/19/2020				7.03		7.22
3/24/2020	5.81					
5/6/2020		6.24				
8/26/2020		5.67				
9/22/2020	5.99	5.78				
9/23/2020				7.15	6.01	7.22
9/25/2020			5.44			

Time Series

Constituent: pH, Field (S.U.) Analysis Run 12/1/2020 12:19 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-30I (bg)	YGWA-3D (bg)	YGWA-3I (bg)	YGWC-46A	YGWC-52
6/1/2016			7.72		
6/2/2016	5.75	7.84			
7/25/2016	5.82		7.74		
7/26/2016		7.88			
9/1/2016				6.19	
9/14/2016			7.65		
9/15/2016		7.74			
9/19/2016	5.78 (D)				
11/1/2016	5.62	7.75	7.7		
11/16/2016				6.05	
1/11/2017		7.66	7.53		
1/16/2017	5.72				
2/21/2017	5.67				
2/27/2017				6.01	
3/1/2017			7.42		
3/2/2017		7.68			
4/26/2017	5.56	7.45	7.4		
5/8/2017				6.1	
6/28/2017		7.65	7.5		
6/30/2017	5.72				
7/13/2017				6.07	
10/4/2017	5.87	7.49	7.45		
10/11/2017				5.93	
3/27/2018	5.83				
3/28/2018		7.91	7.74		
4/4/2018				6.01	
6/7/2018		7.69			
6/8/2018			7.64		
6/11/2018	5.69				
9/19/2018				6.09	
10/1/2018		7.39	7.47		
10/2/2018	5.39				
2/26/2019	5.77				
2/27/2019		7.55	7.54		
3/27/2019				6.2	
4/1/2019	5.62	7.87	7.74		
8/21/2019				5.82	
9/25/2019	5.69	7.64	7.47		
10/9/2019				5.96	
2/11/2020			7.09		
2/12/2020	5.8	7.83			
3/17/2020				5.99	
3/19/2020	6	7.65	7.31		
7/6/2020				6.89	
8/27/2020					5.8
8/28/2020				7.05	
9/22/2020					5.91
9/23/2020		7.57	7.37	6.81	
9/24/2020	5.67				
10/7/2020				7.06	5.87

Time Series

Constituent: Selenium (mg/L) Analysis Run 12/1/2020 12:19 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-47 (bg)	YGWC-44	YGWC-45	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)
6/6/2016					<0.01	<0.01
6/7/2016				0.001 (J)		
7/27/2016				0.0012 (J)	<0.01	<0.01
8/30/2016	0.0017 (J)					
8/31/2016		<0.01	<0.01			
9/16/2016				0.0015 (J)		<0.01
9/19/2016					<0.01	
11/3/2016				0.0015 (J)	<0.01	<0.01
11/14/2016	<0.01		<0.01			
11/15/2016		<0.01				
1/11/2017				0.0014 (J)	<0.01	<0.01
2/24/2017	0.0011 (J)					
2/27/2017			<0.01			
2/28/2017		<0.01				
3/1/2017					<0.01	<0.01
3/2/2017				0.0017 (J)		
4/26/2017					<0.01	<0.01
5/2/2017				<0.01		
5/8/2017	<0.01	<0.01				
5/9/2017			<0.01			
6/28/2017					<0.01	<0.01
6/29/2017				<0.01		
7/11/2017	<0.01					
7/13/2017		<0.01	<0.01			
10/10/2017	<0.01	<0.01	<0.01			
3/28/2018				<0.01	<0.01	<0.01
4/2/2018	<0.01					
4/3/2018			<0.01			
4/4/2018		<0.01				
6/7/2018					<0.01	
6/11/2018				<0.01		<0.01
9/19/2018	<0.01	<0.01	<0.01			
9/25/2018				<0.01	<0.01	<0.01
3/5/2019				<0.01		<0.01
3/6/2019					<0.01	
4/2/2019				<0.01		
4/3/2019					<0.01	<0.01
8/20/2019	<0.01	<0.01	<0.01			
9/25/2019				<0.01		
9/26/2019					<0.01	<0.01
2/11/2020				<0.01	<0.01	<0.01
3/24/2020				<0.01	<0.01	<0.01
8/27/2020	<0.01	<0.01				
8/28/2020			<0.01			
9/23/2020				<0.01	<0.01	<0.01

Time Series

Constituent: Selenium (mg/L) Analysis Run 12/1/2020 12:19 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWA-4I (bg)	YGWA-5D (bg)
6/2/2016					<0.01	<0.01
6/7/2016	<0.01	0.00048 (J)				
7/26/2016					0.0009 (J)	<0.01
7/27/2016	<0.01					
7/28/2016		<0.01				
9/14/2016					<0.01	<0.01
9/19/2016	<0.01	0.0014 (J)				
11/2/2016	<0.01				<0.01	<0.01
11/3/2016		<0.01				
1/12/2017						<0.01
1/13/2017	<0.01	<0.01			<0.01	
3/6/2017	<0.01	<0.01			<0.01	
3/7/2017						<0.01
4/26/2017	<0.01	<0.01				
5/1/2017					<0.01	<0.01
6/27/2017						<0.01
6/29/2017	<0.01	<0.01			<0.01	
10/11/2017			<0.01			
10/12/2017				<0.01		
11/20/2017			<0.01	0.0042 (J)		
1/10/2018				0.0043 (J)		
1/11/2018			<0.01			
2/19/2018				<0.01		
2/20/2018			<0.01			
3/29/2018	<0.01	<0.01			<0.01	<0.01
4/3/2018			<0.01	<0.01		
6/5/2018		<0.01				
6/6/2018	<0.01					<0.01
6/7/2018					<0.01	
6/28/2018			<0.01	0.0032 (J)		
8/7/2018			<0.01	0.0031 (J)		
9/24/2018			0.0015 (J)	0.0026 (J)		
9/25/2018	<0.01	<0.01				
9/26/2018					<0.01	<0.01
3/4/2019					<0.01	<0.01
3/5/2019	<0.01	<0.01				
4/2/2019		<0.01				
4/3/2019	<0.01				<0.01	<0.01
8/21/2019			<0.01	0.0024 (J)		
9/24/2019		<0.01				<0.01
9/25/2019	<0.01				<0.01	
10/9/2019			<0.01	0.0026 (J)		
2/12/2020	<0.01	<0.01	<0.01	0.002 (J)	<0.01	<0.01
3/24/2020	<0.01	<0.01		0.002 (J)		<0.01
3/25/2020			<0.01		<0.01	
9/22/2020					<0.01	<0.01
9/24/2020	<0.01	<0.01	<0.01	0.0016 (J)		

Time Series

Constituent: Selenium (mg/L) Analysis Run 12/1/2020 12:19 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-5I (bg)	GWA-2 (bg)	YGWA-14S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-2I (bg)
5/1/2007		<0.01				
9/11/2007		<0.01				
3/20/2008		<0.01				
8/27/2008		<0.01				
3/3/2009		<0.01				
11/18/2009		<0.01				
3/3/2010		<0.01				
9/8/2010		<0.01				
3/10/2011		<0.01				
9/8/2011		<0.01				
3/5/2012		<0.01				
9/10/2012		<0.01				
2/6/2013		<0.01				
8/12/2013		<0.01				
2/5/2014		<0.01				
8/5/2014		<0.01				
2/4/2015		<0.01				
8/3/2015		<0.01				
2/16/2016		<0.01				
6/1/2016				<0.01	<0.01	
6/2/2016	<0.01		0.0011 (J)			
7/25/2016					<0.01	
7/26/2016	0.0009 (J)		0.0016 (J)	<0.01		
8/31/2016		<0.01				
9/13/2016				<0.01	<0.01	
9/14/2016	<0.01					<0.01
9/15/2016			0.0014 (J)			
11/1/2016				<0.01		
11/2/2016			<0.01			
11/4/2016	<0.01				<0.01	<0.01
11/28/2016		<0.01				
12/15/2016						<0.01
1/10/2017			0.0012 (J)			
1/11/2017				<0.01		
1/12/2017	<0.01					
1/16/2017					<0.01	<0.01
2/22/2017		<0.01				
3/2/2017				<0.01	<0.01	
3/3/2017						<0.01
3/7/2017	<0.01					
3/8/2017			<0.01			
4/26/2017			<0.01			
4/27/2017				<0.01	<0.01	
4/28/2017						<0.01
5/2/2017	<0.01					
5/8/2017		<0.01				
5/26/2017						<0.01
6/27/2017	<0.01			<0.01	<0.01	
6/28/2017						<0.01
6/30/2017			<0.01			
7/17/2017		<0.01				
10/16/2017		<0.01				

Time Series

Constituent: Selenium (mg/L) Analysis Run 12/1/2020 12:19 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-5I (bg)	GWA-2 (bg)	YGWA-14S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-2I (bg)
2/19/2018		<0.01				
3/27/2018			<0.01		<0.01	
3/28/2018						<0.01
3/29/2018	<0.01			<0.01		
6/7/2018	<0.01					
8/6/2018		<0.01				
9/26/2018	<0.01					
2/25/2019		<0.01				
2/26/2019			<0.01			
2/27/2019				<0.01	<0.01	<0.01
3/4/2019	<0.01					
3/28/2019				<0.01	<0.01	
3/29/2019			0.0019 (J)			<0.01
4/3/2019	<0.01					
6/12/2019		<0.01				
8/19/2019		<0.01				
9/24/2019	<0.01			<0.01	<0.01	<0.01
9/25/2019			<0.01			
10/8/2019		<0.01				
2/10/2020				<0.01	<0.01	
2/11/2020						<0.01
2/12/2020	<0.01		<0.01			
3/17/2020		<0.01				
3/18/2020			<0.01		<0.01	
3/19/2020				<0.01		<0.01
3/24/2020	<0.01					
8/26/2020		<0.01				
9/22/2020	<0.01	<0.01				
9/23/2020				<0.01	<0.01	<0.01
9/25/2020			<0.01			

Time Series

Constituent: Selenium (mg/L) Analysis Run 12/1/2020 12:19 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-30I (bg)	YGWA-3D (bg)	YGWA-3I (bg)	YGWC-46A	YGWC-52
6/1/2016			<0.01		
6/2/2016	<0.01	<0.01			
7/25/2016	<0.01		<0.01		
7/26/2016		<0.01			
9/1/2016				<0.01	
9/14/2016			<0.01		
9/15/2016		<0.01			
9/19/2016	<0.01				
11/1/2016	<0.01	<0.01	<0.01		
11/16/2016				<0.01	
1/11/2017		<0.01	<0.01		
1/16/2017	<0.01				
2/21/2017	<0.01				
2/27/2017				<0.01	
3/1/2017			<0.01		
3/2/2017		<0.01			
4/26/2017	<0.01	<0.01	<0.01		
5/8/2017				<0.01	
6/28/2017		<0.01	<0.01		
6/30/2017	<0.01				
7/13/2017				<0.01	
10/11/2017				<0.01	
3/27/2018	<0.01				
3/28/2018		<0.01	<0.01		
4/4/2018				<0.01	
9/19/2018				<0.01	
2/26/2019	<0.01				
2/27/2019		<0.01	<0.01		
4/1/2019	<0.01	<0.01	<0.01		
8/21/2019				<0.01	
9/25/2019	<0.01	<0.01	<0.01		
2/11/2020			<0.01		
2/12/2020	<0.01	<0.01			
3/19/2020	<0.01	<0.01	<0.01		
7/6/2020				<0.01	
8/27/2020					<0.01
8/28/2020				<0.01	
9/23/2020		<0.01	<0.01		
9/24/2020	<0.01				
11/12/2020				<0.01	<0.01

Time Series

Constituent: Sulfate as SO4 (mg/L) Analysis Run 12/1/2020 12:19 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-47 (bg)	YGWC-44	YGWC-45	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)
6/6/2016					1.2	1.8
6/7/2016				4.4		
7/27/2016				4.7	1.7	1.9
8/30/2016	160					
8/31/2016		150	190			
9/16/2016				4.8		1.7
9/19/2016					1.8	
11/3/2016				5.3	0.69 (J)	1.9
11/14/2016	150		200			
11/15/2016		150				
1/11/2017				5.2	<1	1.7
2/24/2017	120					
2/27/2017			190			
2/28/2017		130				
3/1/2017					1.8	<1
3/2/2017				5		
4/26/2017					1.6	1.9
5/2/2017				5		
5/8/2017	120	150				
5/9/2017			190			
6/28/2017					<1	<1
6/29/2017				5.2		
7/11/2017	110					
7/13/2017		150	180			
10/4/2017				5.3		1.7
10/5/2017					1.6	
10/10/2017	93	140	180			
4/2/2018	88.8					
4/3/2018			183			
4/4/2018		137				
6/7/2018					0.68 (J)	
6/11/2018				5.2		0.95 (J)
9/19/2018	75	137	192			
9/25/2018				6.1	1	1.5
3/27/2019	65.9	146	188			
4/2/2019				5.1		
4/3/2019					0.82 (J)	1.3
9/25/2019				5.5		
9/26/2019					0.64 (J)	1
10/8/2019	52.3	142				
10/9/2019			183			
3/17/2020	71.6	121	161			
3/24/2020				5.4	<1	0.99 (J)
9/22/2020	51.5	130				
9/23/2020			170	5.1	0.53 (J)	1.1

Time Series

Constituent: Sulfate as SO4 (mg/L) Analysis Run 12/1/2020 12:19 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWA-4I (bg)	YGWA-5D (bg)
6/2/2016					8	20
6/7/2016	<1	5.2				
7/26/2016					7.7	20
7/27/2016	0.08 (J)					
7/28/2016		5.1				
9/14/2016					7.5	19
9/19/2016	0.08 (J)	4.8				
11/2/2016	0.1 (J)				8.2	20
11/3/2016		5				
1/12/2017						19
1/13/2017	<1	4.3			8.1	
3/6/2017	<1	4.5			8	
3/7/2017						20
4/26/2017	<1	4.9				
5/1/2017					8.4	20
6/27/2017						18
6/29/2017	<1	5.5			9.2	
10/3/2017		5.8				16
10/4/2017	<1					
10/5/2017					9.6	
10/11/2017			20			
10/12/2017				17		
11/20/2017			24	71		
1/10/2018				66		
1/11/2018			23			
2/19/2018				57.2		
2/20/2018			20.6			
4/3/2018			24.5	49.4		
6/5/2018		6.1				
6/6/2018	0.049 (J)					8.3
6/7/2018					8.5	
6/28/2018			22	43.8		
8/7/2018			20.7	40.5		
9/24/2018			21.2	39.7		
9/25/2018	0.13 (J)	7				
9/26/2018					10.2	7.9
3/26/2019				34.3		
3/27/2019			17.7			
4/2/2019		3.8				
4/3/2019	0.12 (J)				8.5	7
9/24/2019		1				5.5
9/25/2019	<1				8.5	
10/9/2019			15	27.9		
3/24/2020	<1	3		25.2		5.9
3/25/2020			14.3		8.8	
9/22/2020					8.2	5.5
9/24/2020	<1	3.6	11.7	22.9		

Time Series

Constituent: Sulfate as SO4 (mg/L) Analysis Run 12/1/2020 12:19 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-5I (bg)	GWA-2 (bg)	YGWA-14S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-2I (bg)
6/1/2016				5	4.2	
6/2/2016	1.9		6.6			
7/25/2016					3.7	
7/26/2016	1.8		6.1	5.4		
8/31/2016		29				
9/13/2016				2.9	5.2	
9/14/2016	1.8					9.4
9/15/2016			6.1			
11/1/2016				3.9		
11/2/2016			6.3			
11/4/2016	2				5	13
11/28/2016		36				
12/15/2016						1.8
1/10/2017			5.9			
1/11/2017				3.7		
1/12/2017	1.9					
1/16/2017					7.9	11
2/22/2017		43				
3/2/2017				4.6	7.4	
3/3/2017						8.8
3/7/2017	2.1					
3/8/2017			7			
4/26/2017			7			
4/27/2017				5.2	7.4	
4/28/2017						10
5/2/2017	2					
5/8/2017		60				
5/26/2017						12
6/27/2017	2.1			5.9	6.4	
6/28/2017						11
6/30/2017			6.5			
7/17/2017		63				
10/3/2017	2.3			6.6	5.9	7.9
10/5/2017			7.9			
10/16/2017		62				
2/19/2018		64.6				
6/5/2018				6.4		
6/6/2018					4.4	
6/7/2018	2					8.8
6/8/2018			6.4			
8/6/2018		42.1				
9/26/2018	2.3					
10/1/2018			6.8	5.6	4	9.1
2/25/2019		42.1				
3/28/2019				8	4.3	
3/29/2019			7.3			9
4/3/2019	2.1					
6/12/2019		83.4				
9/24/2019	2.4			5.3	4.3	9.1
9/25/2019			6.6			
10/8/2019		128				
3/17/2020		98.6				

Time Series

Constituent: Sulfate as SO4 (mg/L) Analysis Run 12/1/2020 12:19 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-5I (bg)	GWA-2 (bg)	YGWA-14S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-2I (bg)
3/18/2020			8.1		5.3	
3/19/2020				10		12.4
3/24/2020	2.1					
9/22/2020	2.1	145				
9/23/2020				8.1	3.4	11.8
9/25/2020			6.1			

Time Series

Constituent: Sulfate as SO4 (mg/L) Analysis Run 12/1/2020 12:19 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-30I (bg)	YGWA-3D (bg)	YGWA-3I (bg)	YGWC-46A	YGWC-52
6/1/2016			12		
6/2/2016	1.3	5.8			
7/25/2016	1.2		8.4		
7/26/2016		6.7			
9/1/2016				770	
9/14/2016			8.6		
9/15/2016		6			
9/19/2016	1.2				
11/1/2016	1.3	4.9	8.9		
11/16/2016				780	
1/11/2017		4.5	8.6		
1/16/2017	<1				
2/21/2017	1.4				
2/27/2017				650	
3/1/2017			9.3		
3/2/2017		4.4			
4/26/2017	1.4	5.1	11		
5/8/2017				770	
6/28/2017		5.4	12		
6/30/2017	<1				
7/13/2017				630	
10/4/2017	1.4	6.2	12		
10/11/2017				540	
4/4/2018				430	
6/7/2018		6.7			
6/8/2018			9.6		
6/11/2018	1.1				
9/19/2018				395	
10/1/2018		7.1	9.1		
10/2/2018	1				
3/27/2019				437	
4/1/2019	0.96 (J)	7.2	8.5		
9/25/2019	0.81 (J)	7	13.8		
10/9/2019				<1	
3/17/2020				439	
3/19/2020	1.6	9	12.9		
7/6/2020				385	
8/27/2020					144
8/28/2020				394	
9/22/2020					156
9/23/2020		6.9	16.8	430	
9/24/2020	0.69 (J)				
10/7/2020				427	156
11/12/2020				385	147

Time Series

Constituent: Thallium (mg/L) Analysis Run 12/1/2020 12:19 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-47 (bg)	YGWC-44	YGWC-45	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)
6/6/2016					<0.001	<0.001
6/7/2016				<0.001		
7/27/2016				<0.001	<0.001	<0.001
8/30/2016	<0.001					
8/31/2016		<0.001	<0.001			
9/16/2016				<0.001		<0.001
9/19/2016					<0.001	
11/3/2016				<0.001	<0.001	<0.001
11/14/2016	<0.001		<0.001			
11/15/2016		<0.001				
1/11/2017				<0.001	<0.001	<0.001
2/24/2017	<0.001					
2/27/2017			<0.001			
2/28/2017		<0.001				
3/1/2017					<0.001	<0.001
3/2/2017				<0.001		
4/26/2017					<0.001	<0.001
5/2/2017				<0.001		
5/8/2017	<0.001	<0.001				
5/9/2017			<0.001			
6/28/2017					<0.001	<0.001
6/29/2017				<0.001		
7/11/2017	<0.001					
7/13/2017		<0.001	<0.001			
10/10/2017	<0.001	<0.001	<0.001			
3/28/2018				<0.001	<0.001	<0.001
4/2/2018	<0.001					
4/3/2018			<0.001			
4/4/2018		<0.001				
9/19/2018	<0.001	<0.001	<0.001			
3/5/2019				<0.001		<0.001
3/6/2019					<0.001	
4/2/2019				<0.001		
4/3/2019					<0.001	<0.001
8/20/2019	5.8E-05 (J)	<0.001	<0.001			
9/25/2019				<0.001		
9/26/2019					<0.001	<0.001
10/8/2019	8.4E-05 (J)	<0.001				
10/9/2019			<0.001			
2/11/2020				<0.001	<0.001	<0.001
3/17/2020	<0.001	8E-05 (J)	<0.001			
3/24/2020				<0.001	<0.001	<0.001
8/27/2020	<0.001	<0.001				
8/28/2020			<0.001			
9/23/2020				<0.001	<0.001	<0.001

Time Series

Constituent: Thallium (mg/L) Analysis Run 12/1/2020 12:19 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWA-4I (bg)	YGWA-5D (bg)
6/2/2016					<0.001	<0.001
6/7/2016	<0.001	<0.001				
7/26/2016					<0.001	<0.001
7/27/2016	<0.001					
7/28/2016		<0.001				
9/14/2016					<0.001	<0.001
9/19/2016	<0.001	<0.001				
11/2/2016	<0.001				<0.001	<0.001
11/3/2016		<0.001				
1/12/2017						<0.001
1/13/2017	<0.001	<0.001			<0.001	
3/6/2017	<0.001	<0.001			<0.001	
3/7/2017						<0.001
4/26/2017	<0.001	<0.001				
5/1/2017					<0.001	<0.001
6/27/2017						<0.001
6/29/2017	<0.001	<0.001			<0.001	
10/11/2017			<0.001			
10/12/2017				<0.001		
11/20/2017			<0.001	<0.001		
1/10/2018				<0.001		
1/11/2018			<0.001			
2/19/2018				<0.001		
2/20/2018			<0.001			
3/29/2018	<0.001	<0.001			<0.001	<0.001
4/3/2018			<0.001	<0.001		
6/28/2018			<0.001	<0.001		
8/7/2018			<0.001	<0.001		
9/24/2018			<0.001	<0.001		
9/25/2018		<0.001				
3/4/2019					<0.001	<0.001
3/5/2019	<0.001	<0.001				
4/2/2019		<0.001				
4/3/2019	<0.001				<0.001	<0.001
8/21/2019			<0.001	<0.001		
9/24/2019		<0.001				<0.001
9/25/2019	<0.001				<0.001	
2/12/2020	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
3/24/2020	<0.001	<0.001		<0.001		<0.001
3/25/2020			<0.001		<0.001	
9/22/2020					<0.001	<0.001
9/24/2020	<0.001	<0.001	<0.001	<0.001		

Time Series

Constituent: Thallium (mg/L) Analysis Run 12/1/2020 12:19 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-5I (bg)	GWA-2 (bg)	YGWA-14S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-2I (bg)
5/1/2007		<0.001				
9/11/2007		<0.001				
3/20/2008		<0.001				
8/27/2008		<0.001				
3/3/2009		<0.001				
11/18/2009		<0.001				
3/3/2010		<0.001				
9/8/2010		<0.001				
3/10/2011		<0.001				
9/8/2011		<0.001				
3/5/2012		<0.001				
9/10/2012		<0.001				
2/6/2013		<0.001				
8/12/2013		<0.001				
2/5/2014		<0.001				
8/5/2014		<0.001				
2/4/2015		<0.001				
2/16/2016		<0.001				
6/1/2016				<0.001	<0.001	
6/2/2016	<0.001		<0.001			
7/25/2016					<0.001	
7/26/2016	<0.001		<0.001	<0.001		
8/31/2016		<0.001				
9/13/2016				<0.001	<0.001	
9/14/2016	<0.001					<0.001
9/15/2016			<0.001			
11/1/2016				<0.001		
11/2/2016			<0.001			
11/4/2016	<0.001				<0.001	<0.001
11/28/2016		<0.001				
12/15/2016						<0.001
1/10/2017			<0.001			
1/11/2017				<0.001		
1/12/2017	<0.001					
1/16/2017					<0.001	<0.001
2/22/2017		<0.001				
3/2/2017				<0.001	<0.001	
3/3/2017						<0.001
3/7/2017	<0.001					
3/8/2017			<0.001			
4/26/2017			<0.001			
4/27/2017				<0.001	<0.001	
4/28/2017						<0.001
5/2/2017	<0.001					
5/8/2017		6E-05 (J)				
5/26/2017						<0.001
6/27/2017	<0.001			<0.001	<0.001	
6/28/2017						<0.001
6/30/2017			<0.001			
7/17/2017		6E-05 (J)				
10/16/2017		7E-05 (J)				
2/19/2018		<0.001				

Time Series

Constituent: Thallium (mg/L) Analysis Run 12/1/2020 12:19 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-5I (bg)	GWA-2 (bg)	YGWA-14S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-2I (bg)
3/27/2018			<0.001		<0.001	
3/28/2018						<0.001
3/29/2018	<0.001			<0.001		
8/6/2018		<0.001				
2/25/2019		<0.001				
2/26/2019			<0.001			
2/27/2019				<0.001	<0.001	<0.001
3/4/2019	<0.001					
4/3/2019	<0.001					
6/12/2019		<0.001				
8/19/2019		5.5E-05 (J)				
9/24/2019	<0.001					
10/8/2019		<0.001				
2/10/2020				<0.001	5.5E-05 (J)	
2/11/2020						<0.001
2/12/2020	<0.001		8.9E-05 (J)			
3/17/2020		<0.001				
3/18/2020			<0.001		<0.001	
3/19/2020				<0.001		<0.001
3/24/2020	<0.001					
8/26/2020		<0.001				
9/22/2020	<0.001	<0.001				
9/23/2020				<0.001	<0.001	<0.001
9/25/2020			<0.001			

Time Series

Constituent: Thallium (mg/L) Analysis Run 12/1/2020 12:19 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-30I (bg)	YGWA-3D (bg)	YGWA-3I (bg)	YGWC-46A	YGWC-52
6/1/2016			<0.001		
6/2/2016	<0.001	<0.001			
7/25/2016	<0.001		<0.001		
7/26/2016		0.0001 (J)			
9/1/2016				<0.001	
9/14/2016			<0.001		
9/15/2016		<0.001			
9/19/2016	<0.001				
11/1/2016	<0.001	<0.001	<0.001		
11/16/2016				<0.001	
1/11/2017		<0.001	<0.001		
1/16/2017	<0.001				
2/21/2017	<0.001				
2/27/2017				<0.001	
3/1/2017			<0.001		
3/2/2017		<0.001			
4/26/2017	<0.001	<0.001	<0.001		
5/8/2017				<0.001	
6/28/2017		<0.001	<0.001		
6/30/2017	<0.001				
7/13/2017				<0.001	
10/11/2017				<0.001	
3/27/2018	<0.001				
3/28/2018		<0.001	<0.001		
4/4/2018				<0.001	
9/19/2018				<0.001	
2/26/2019	<0.001				
2/27/2019		<0.001	<0.001		
8/21/2019				<0.001	
10/9/2019				<0.001	
2/11/2020			<0.001		
2/12/2020	<0.001	<0.001			
3/17/2020				<0.001	
3/19/2020	<0.001	<0.001	<0.001		
7/6/2020				7.3E-05 (J)	
8/27/2020					<0.001
8/28/2020				<0.001	
9/23/2020		<0.001	0.00016 (J)		
9/24/2020	<0.001				
11/12/2020				<0.001	<0.001

Time Series

Constituent: Total Dissolved Solids [TDS] (mg/L) Analysis Run 12/1/2020 12:19 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-47 (bg)	YGWC-44	YGWC-45	YGWA-17S (bg)	YGWA-18I (bg)	YGWA-18S (bg)
6/6/2016					120	58
6/7/2016				28		
7/27/2016				74	94	35
8/30/2016	319					
8/31/2016		332	402			
9/16/2016				67		35
9/19/2016					92	
11/3/2016				41	104	48
11/14/2016	280		445			
11/15/2016		356				
1/11/2017				104	133	95
2/24/2017	162					
2/27/2017			346			
2/28/2017		483				
3/1/2017					119	79
3/2/2017				77		
4/26/2017					162	36
5/2/2017				142		
5/8/2017	194	296				
5/9/2017			388			
6/28/2017					98	45
6/29/2017				53		
7/11/2017	193					
7/13/2017		345	433			
10/4/2017				61		45
10/5/2017					104	
10/10/2017	175	311	396			
4/2/2018	192					
4/3/2018			418			
4/4/2018		313				
6/7/2018					68	
6/11/2018				70		74
9/19/2018	186	326	413			
9/25/2018				86	109	63
3/27/2019	170	302	383			
4/2/2019				72		
4/3/2019					89	63
9/25/2019				81		
9/26/2019					126	72
10/8/2019	172	324				
10/9/2019			432			
3/17/2020	165	283	391			
3/24/2020				71	91	59
9/22/2020	141	294				
9/23/2020			404	99	103	81

Time Series

Constituent: Total Dissolved Solids [TDS] (mg/L) Analysis Run 12/1/2020 12:19 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWA-4I (bg)	YGWA-5D (bg)
6/2/2016					96	160
6/7/2016	38	60				
7/26/2016					92	177
7/27/2016	74					
7/28/2016		81				
9/14/2016					102	187
9/19/2016	45	68				
11/2/2016	53				115	181
11/3/2016		61				
1/12/2017						202
1/13/2017	46	76			67	
3/6/2017	164	167			159	
3/7/2017						257
4/26/2017	34	50				
5/1/2017					107	165
6/27/2017						189
6/29/2017	68	94			79	
10/3/2017		149				170
10/4/2017	54					
10/5/2017					95	
10/11/2017			68			
10/12/2017				74		
11/20/2017			139	179		
1/10/2018				140		
1/11/2018			153			
2/19/2018				119		
2/20/2018			87			
4/3/2018			85	106		
6/5/2018		109				
6/6/2018	79					151
6/7/2018					90	
6/28/2018			88	112		
8/7/2018			89	103		
9/24/2018			82	107		
9/25/2018	73	122				
9/26/2018					116	144
3/26/2019				90		
3/27/2019			75			
4/2/2019		134				
4/3/2019	57				111	142
9/24/2019		157				129
9/25/2019	75				117	
10/9/2019			119	98		
3/24/2020	76	117		84		139
3/25/2020			158		146	
9/22/2020					83	104
9/24/2020	69	113	170	77		

Time Series

Constituent: Total Dissolved Solids [TDS] (mg/L) Analysis Run 12/1/2020 12:19 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-5I (bg)	GWA-2 (bg)	YGWA-14S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-2I (bg)
6/1/2016				120	54	
6/2/2016	66		46			
7/25/2016					48	
7/26/2016	78		54	94		
8/31/2016		209				
9/13/2016				105	67	
9/14/2016	73					152
9/15/2016			54			
11/1/2016				44		
11/2/2016			71			
11/4/2016	75				60	148
11/28/2016		102				
12/15/2016						191
1/10/2017			45			
1/11/2017				107		
1/12/2017	86					
1/16/2017					65	180
2/22/2017		164				
3/2/2017				98	61	
3/3/2017						156
3/7/2017	108					
3/8/2017			178			
4/26/2017			52			
4/27/2017				116	31	
4/28/2017						130
5/2/2017	103					
5/8/2017		145				
5/26/2017						223
6/27/2017	73			89	42	
6/28/2017						166
6/30/2017			45			
7/17/2017		185				
10/3/2017	89			119	58	153
10/5/2017			40			
10/16/2017		218				
2/19/2018		173				
6/5/2018				127		
6/6/2018					96	
6/7/2018	142					146
6/8/2018			114			
8/6/2018		158				
9/26/2018	86					
10/1/2018			50	117	60	155
2/25/2019		92				
3/28/2019				87	87	
3/29/2019			63			150
4/3/2019	83					
6/12/2019		226				
9/24/2019	79			124	54	146
9/25/2019			64			
10/8/2019		276				
3/17/2020		185				

Time Series

Constituent: Total Dissolved Solids [TDS] (mg/L) Analysis Run 12/1/2020 12:19 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-5I (bg)	GWA-2 (bg)	YGWA-14S (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-2I (bg)
3/18/2020			57		35	
3/19/2020				116		148
3/24/2020	68					
9/22/2020	75	281				
9/23/2020				108	15	161
9/25/2020			54			

Time Series

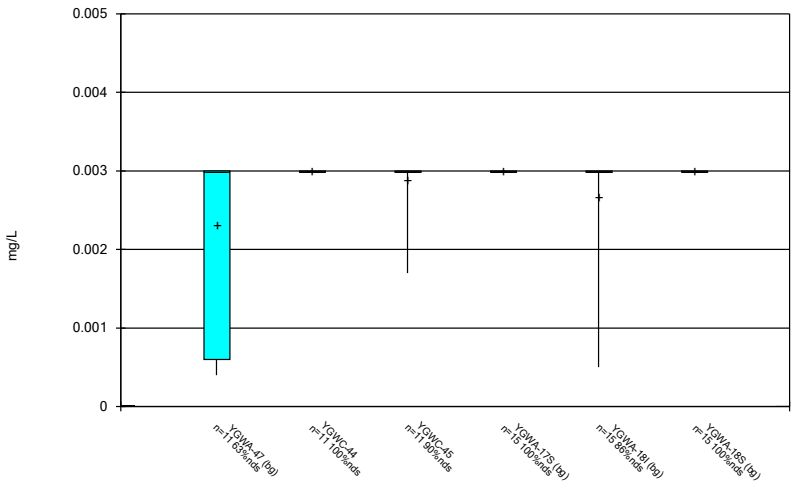
Constituent: Total Dissolved Solids [TDS] (mg/L) Analysis Run 12/1/2020 12:19 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-30I (bg)	YGWA-3D (bg)	YGWA-3I (bg)	YGWC-46A	YGWC-52
6/1/2016			150		
6/2/2016	36	130			
7/25/2016	50		135		
7/26/2016		141			
9/1/2016				1240	
9/14/2016			127		
9/15/2016		153			
9/19/2016	35				
11/1/2016	<25	92	75		
11/16/2016				1220	
1/11/2017		159	148		
1/16/2017	47				
2/21/2017	<25				
2/27/2017				1060	
3/1/2017			182		
3/2/2017		117			
4/26/2017	55	181	92		
5/8/2017				1160	
6/28/2017		169	126		
6/30/2017	42				
7/13/2017				996	
10/4/2017	31	141	147		
10/11/2017				835	
4/4/2018				1470	
6/7/2018		95			
6/8/2018			158		
6/11/2018	59				
9/19/2018				702	
10/1/2018		165	138		
10/2/2018	57				
3/27/2019				641	
4/1/2019	54	149	19 (J)		
9/25/2019	51	157	159		
10/9/2019				809	
3/17/2020				733	
3/19/2020	47	146	148		
7/6/2020				793	
8/27/2020					349
8/28/2020				838	
9/22/2020					296
9/23/2020		157	155	832	
9/24/2020	51				
10/7/2020				842	336
11/12/2020				760	317

FIGURE B.

Box & Whiskers Plot

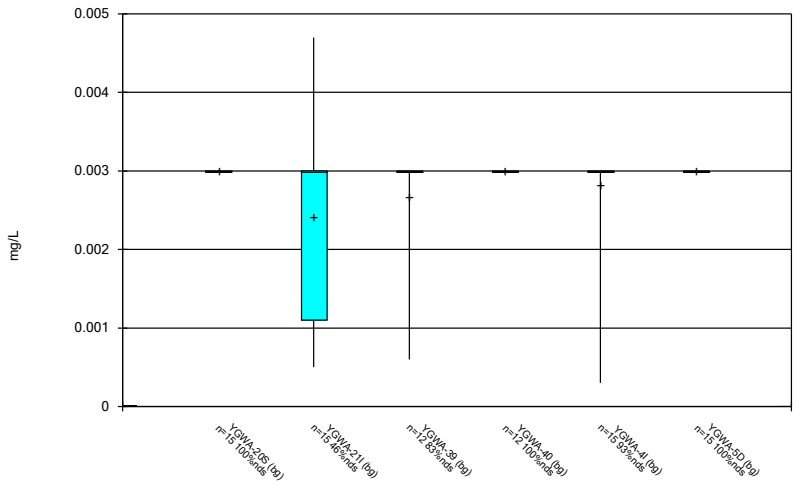


Constituent: Antimony Analysis Run 12/1/2020 12:06 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Box & Whiskers Plot

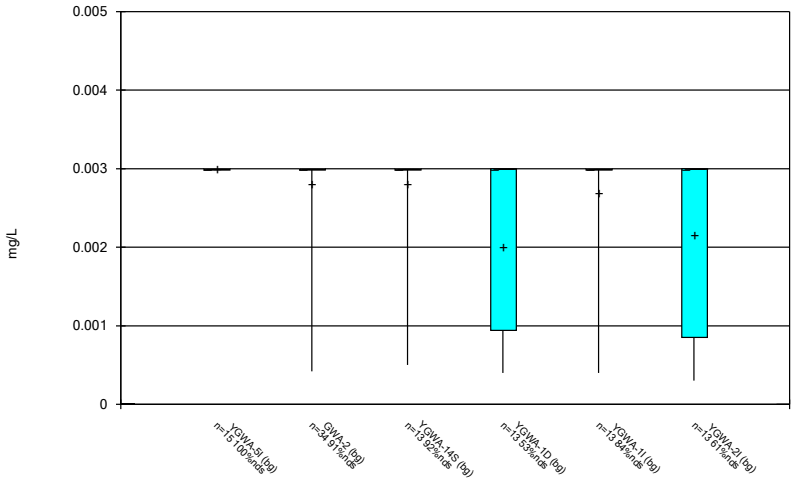


Constituent: Antimony Analysis Run 12/1/2020 12:06 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Box & Whiskers Plot

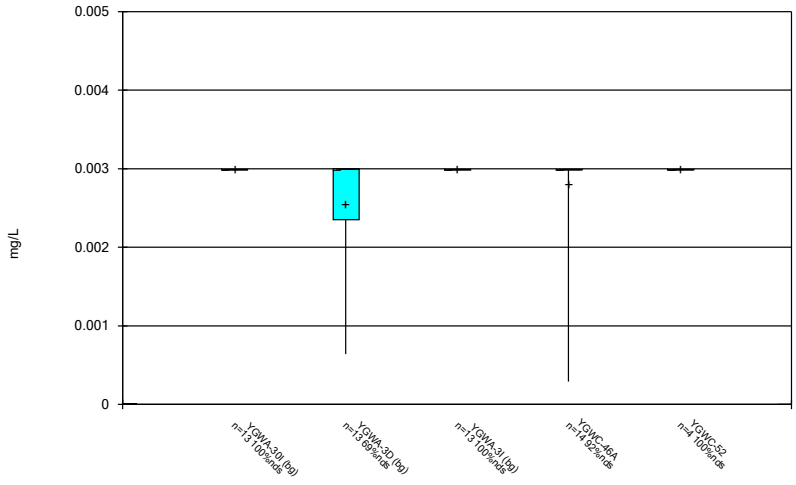


Constituent: Antimony Analysis Run 12/1/2020 12:06 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

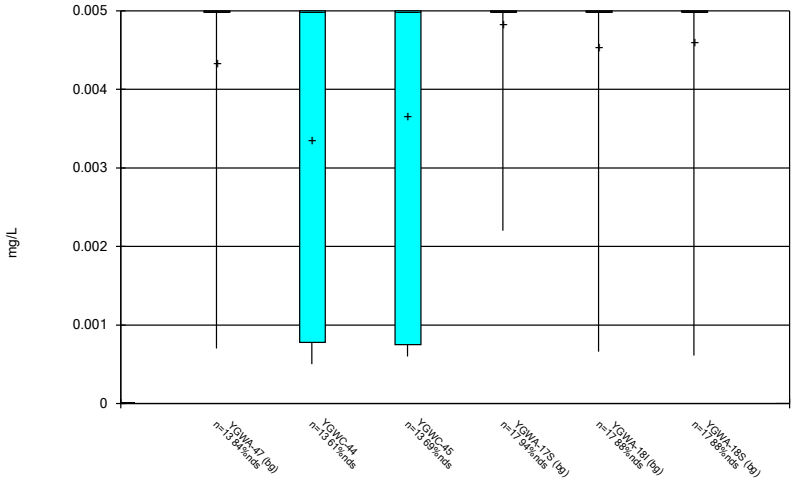
Box & Whiskers Plot



Constituent: Antimony Analysis Run 12/1/2020 12:06 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

Box & Whiskers Plot



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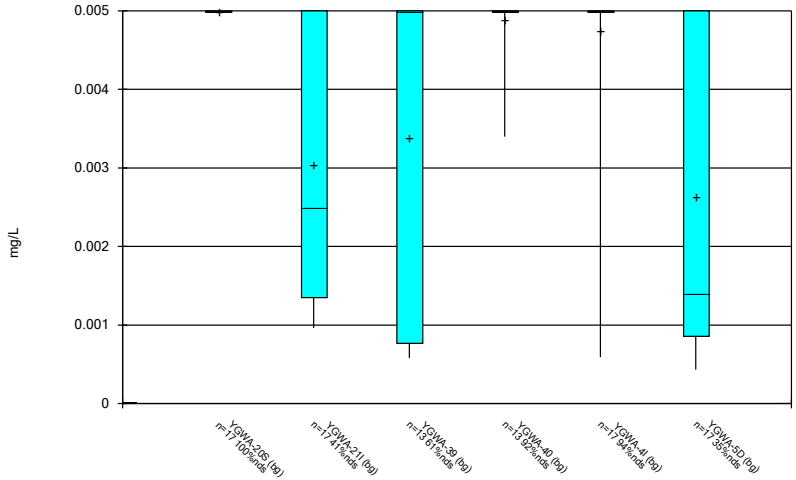
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Box & Whiskers Plot



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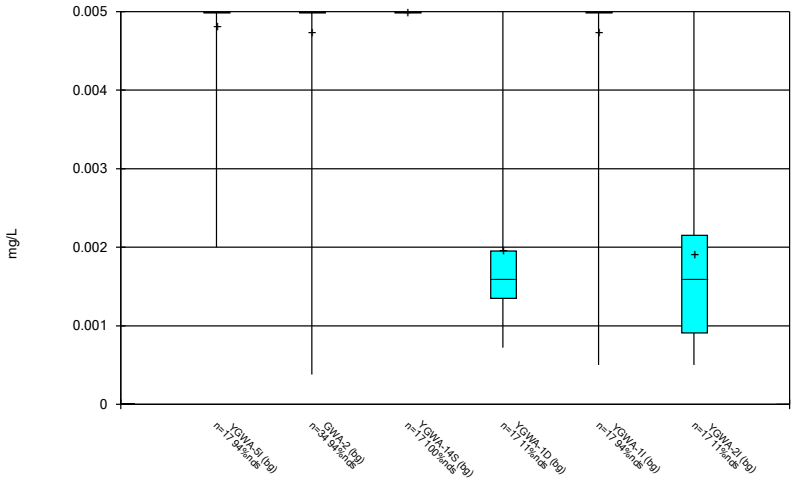
Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Box & Whiskers Plot



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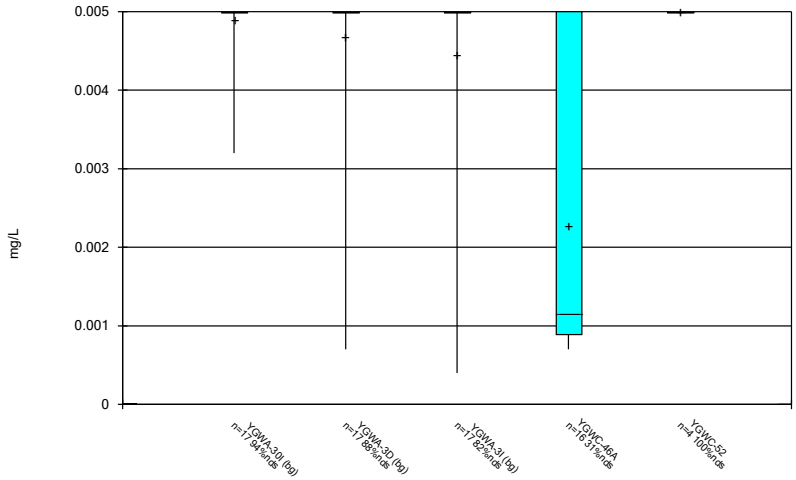
Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Box & Whiskers Plot



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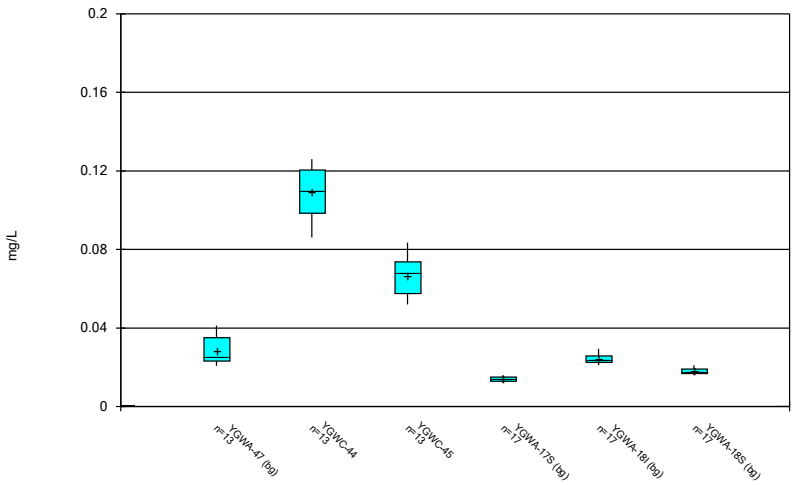
Box & Whiskers Plot



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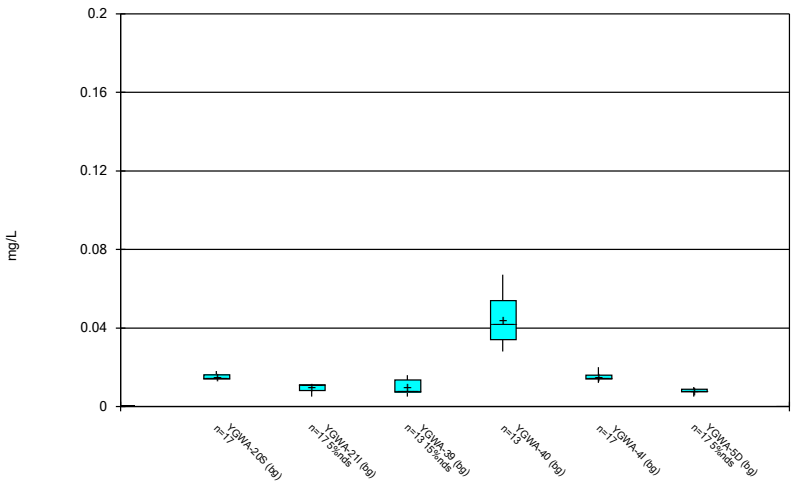
Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Box & Whiskers Plot



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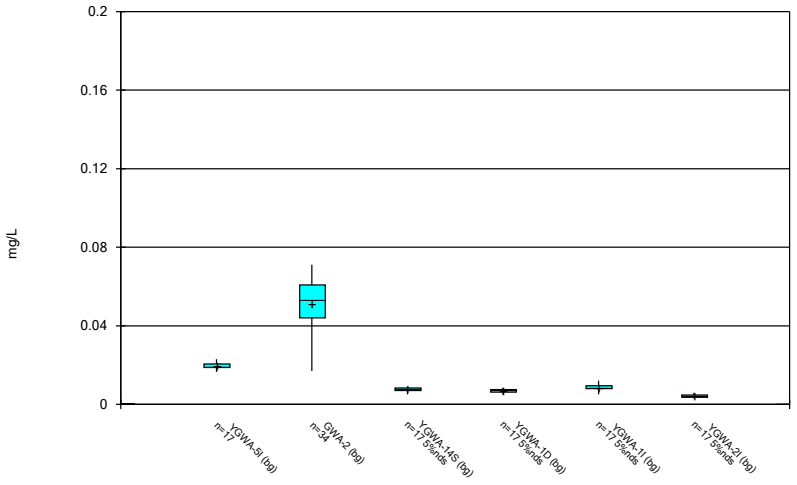
Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Box & Whiskers Plot



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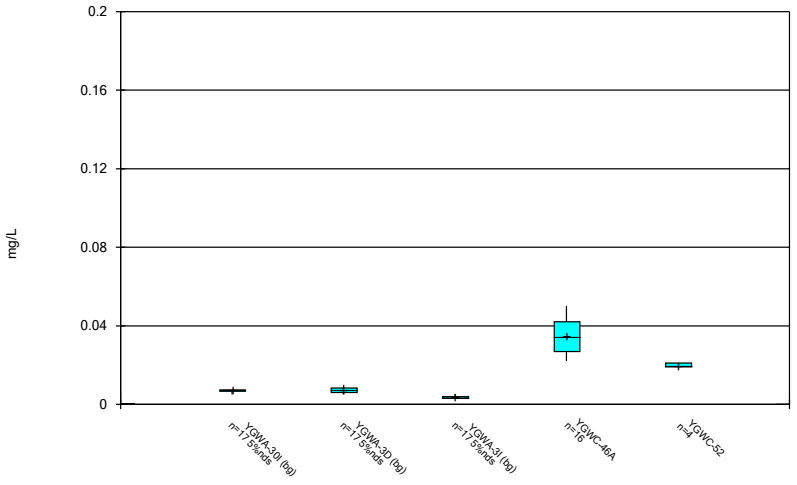
Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Box & Whiskers Plot



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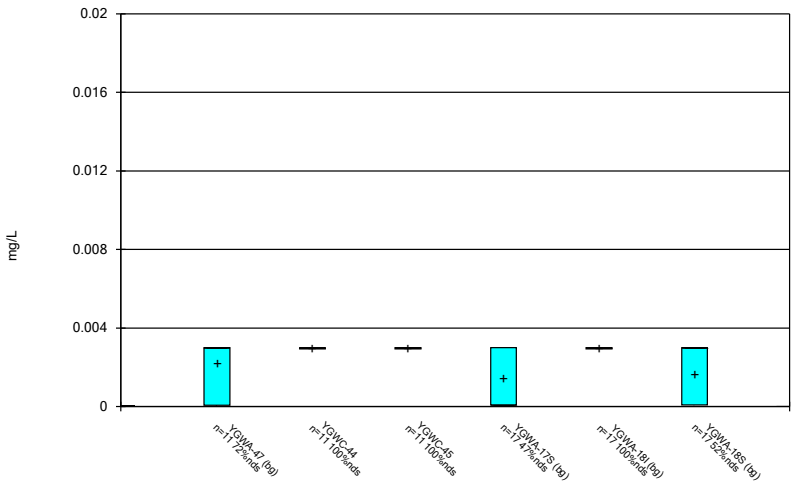
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Box & Whiskers Plot



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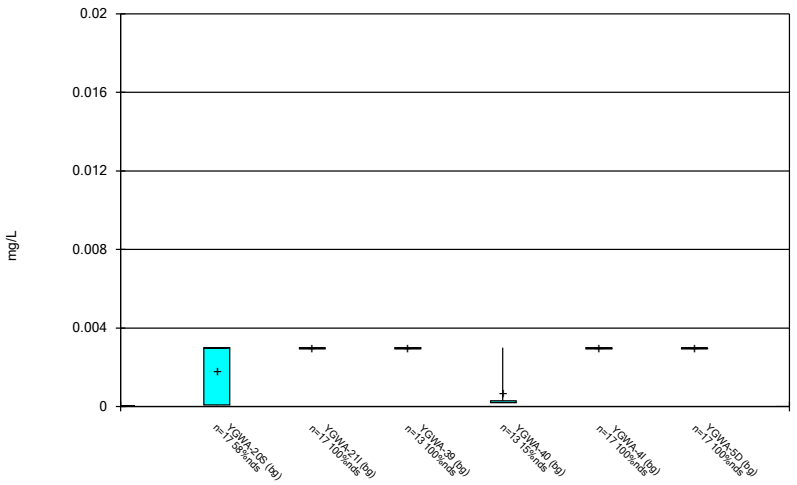
Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Box & Whiskers Plot



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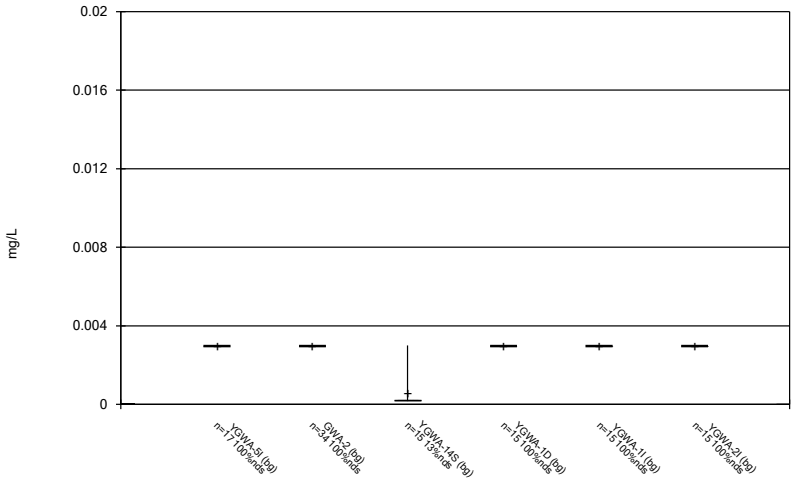
Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Box & Whiskers Plot



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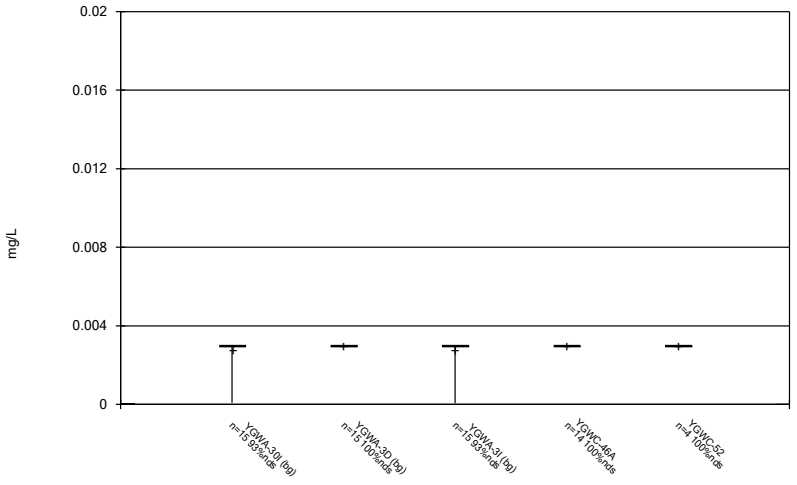
Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Box & Whiskers Plot



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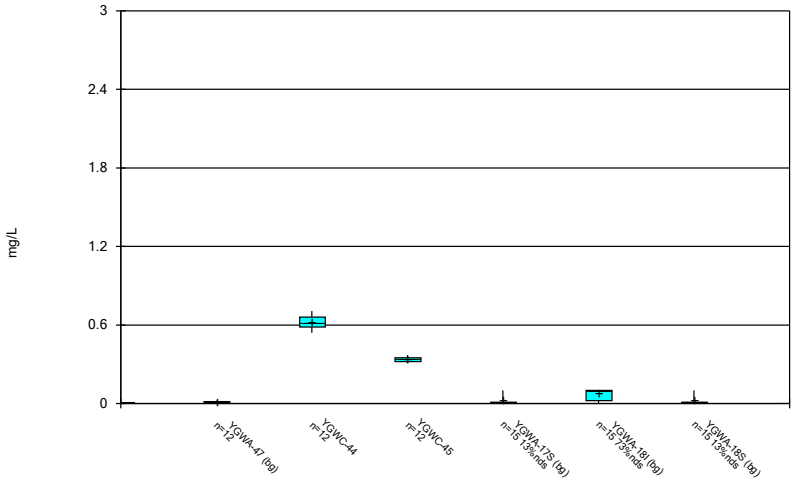
Box & Whiskers Plot



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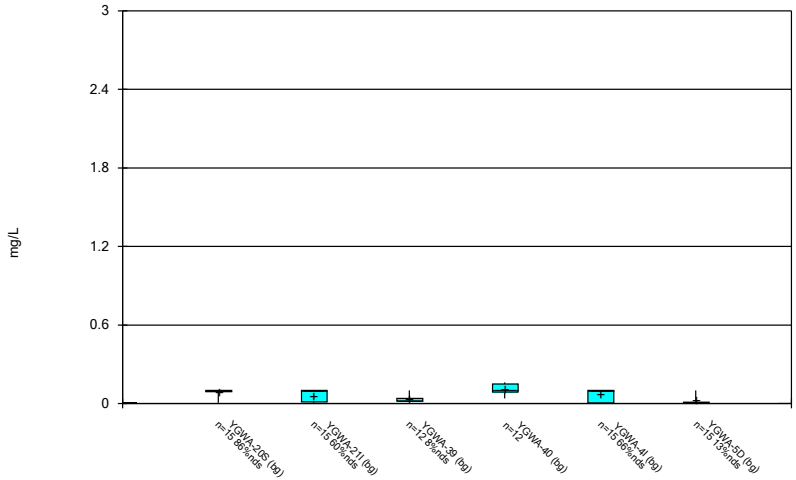
Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Box & Whiskers Plot



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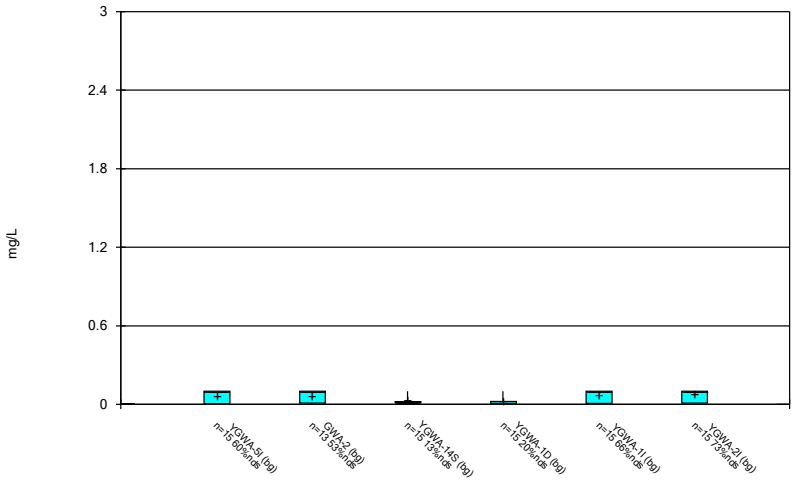
Box & Whiskers Plot



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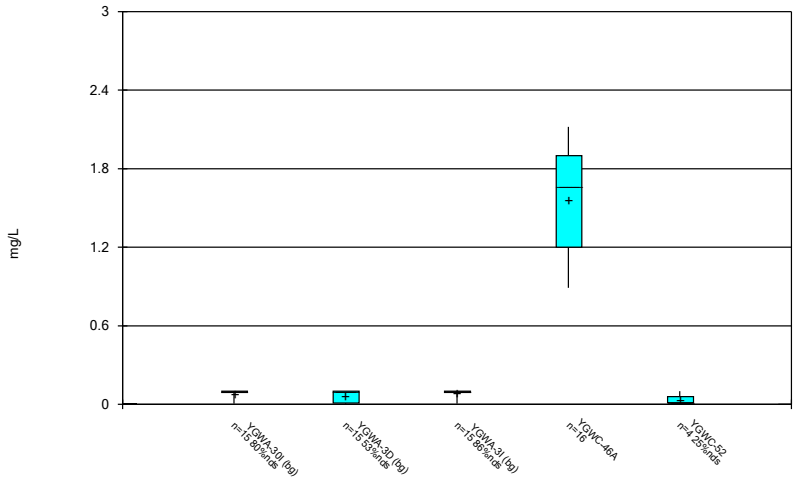
Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Box & Whiskers Plot



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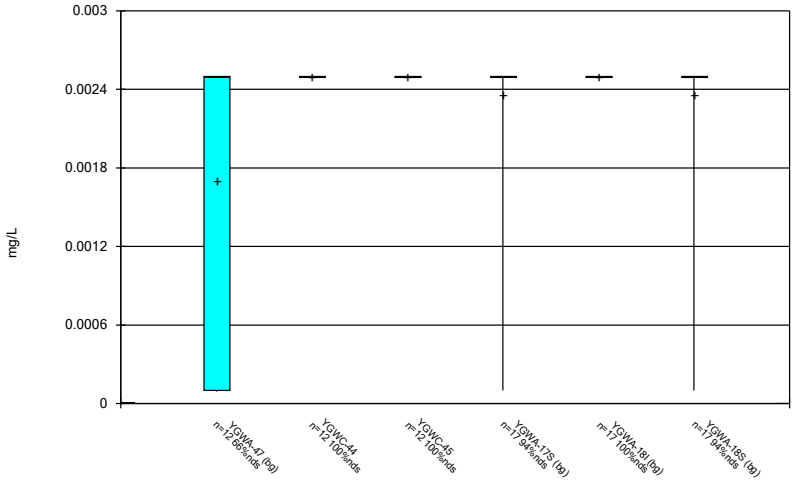
Box & Whiskers Plot



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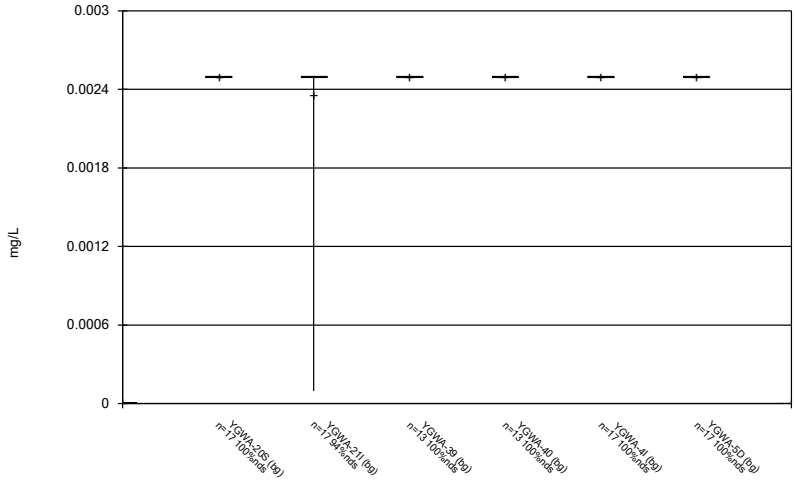
Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Box & Whiskers Plot



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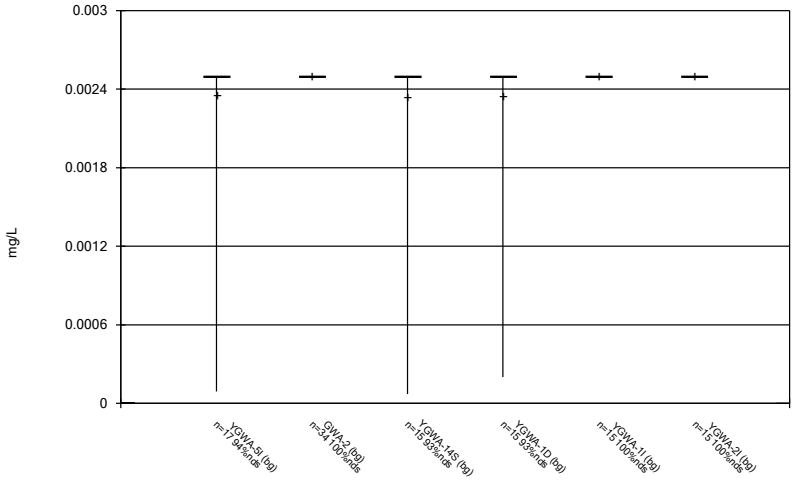
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Box & Whiskers Plot



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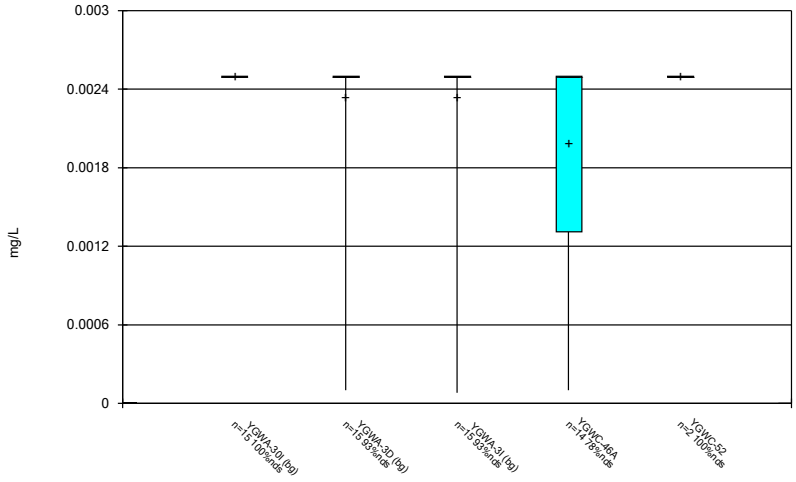
Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Box & Whiskers Plot



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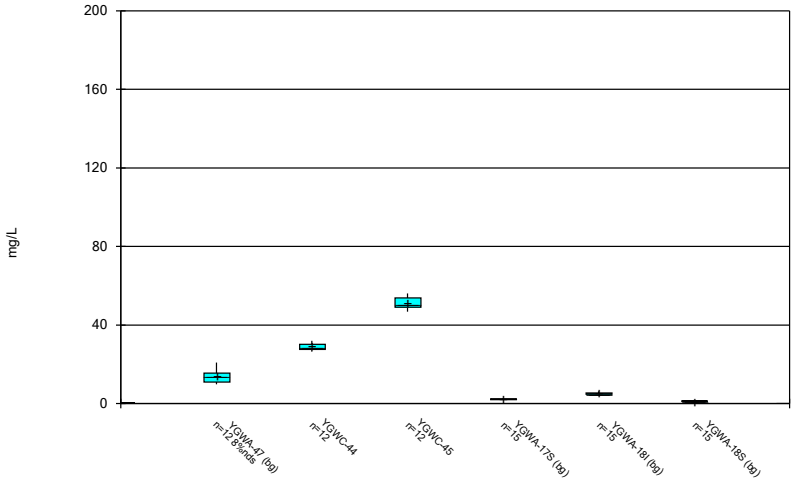
Box & Whiskers Plot



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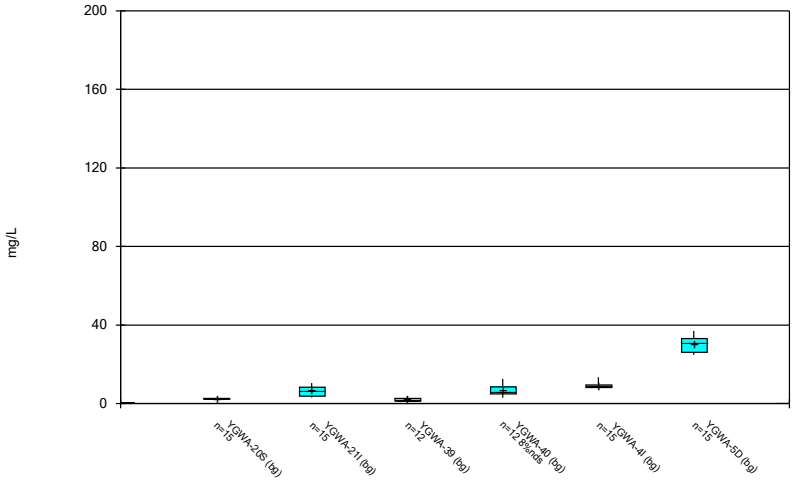
Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Box & Whiskers Plot



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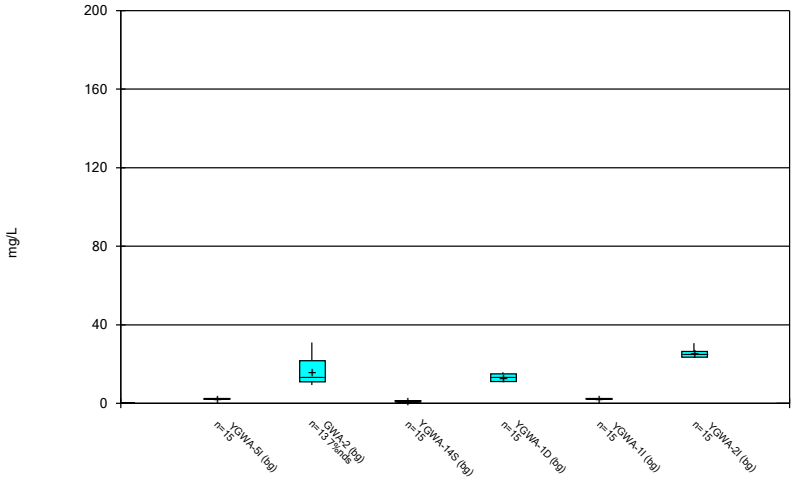
Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Box & Whiskers Plot



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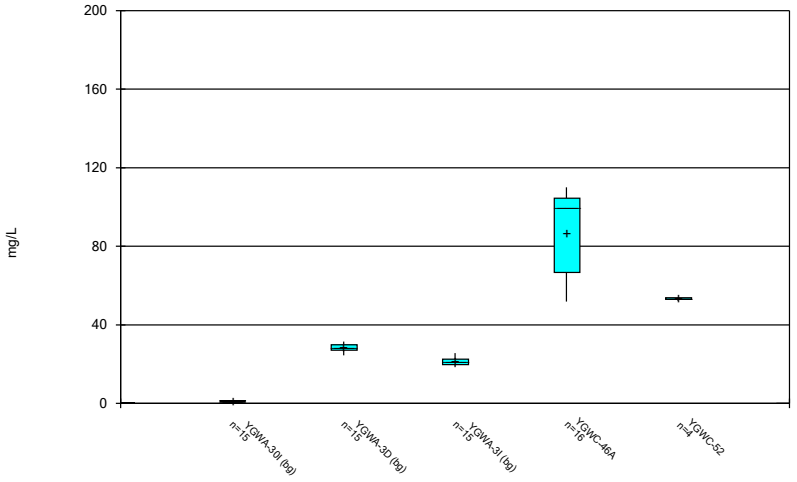
Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Box & Whiskers Plot



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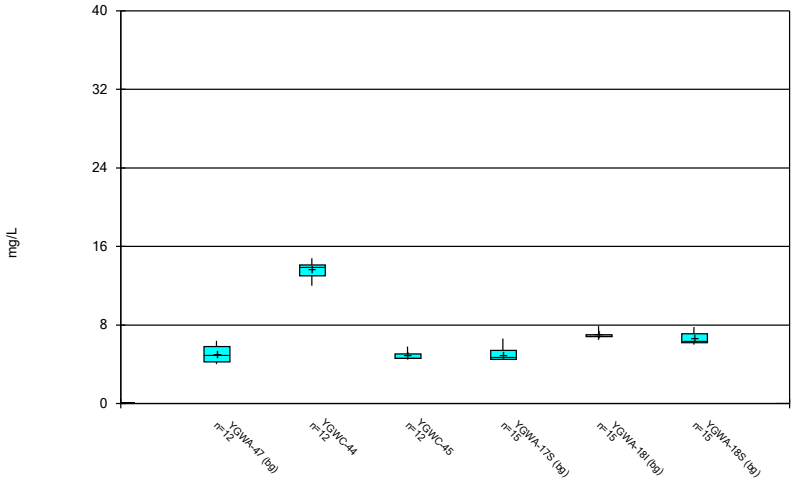
Box & Whiskers Plot



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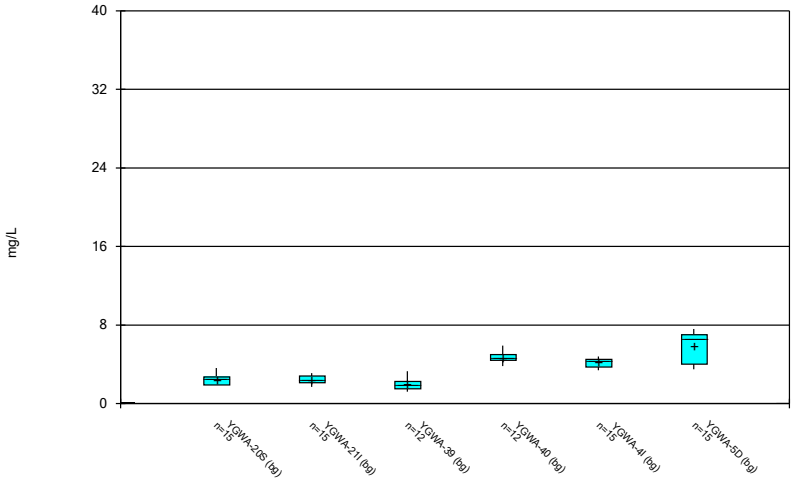
Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Box & Whiskers Plot



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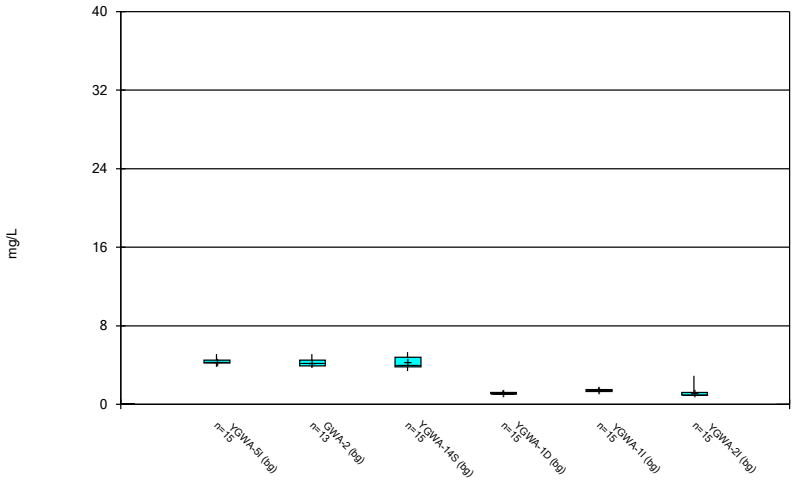
Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Box & Whiskers Plot



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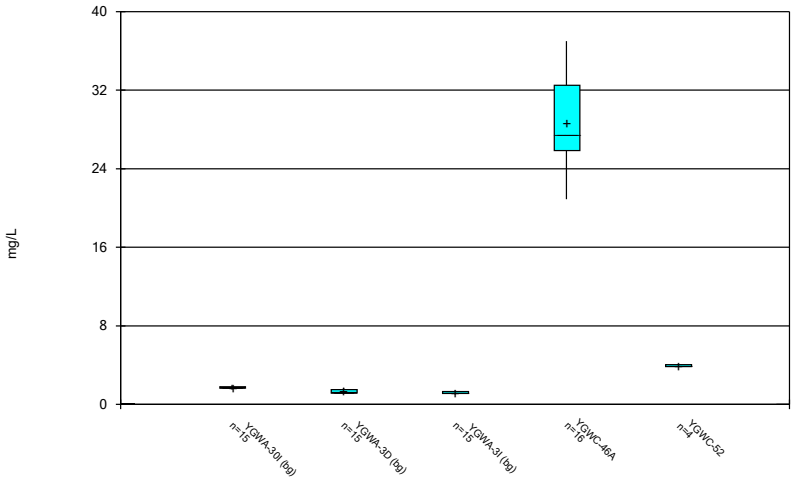
Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Box & Whiskers Plot



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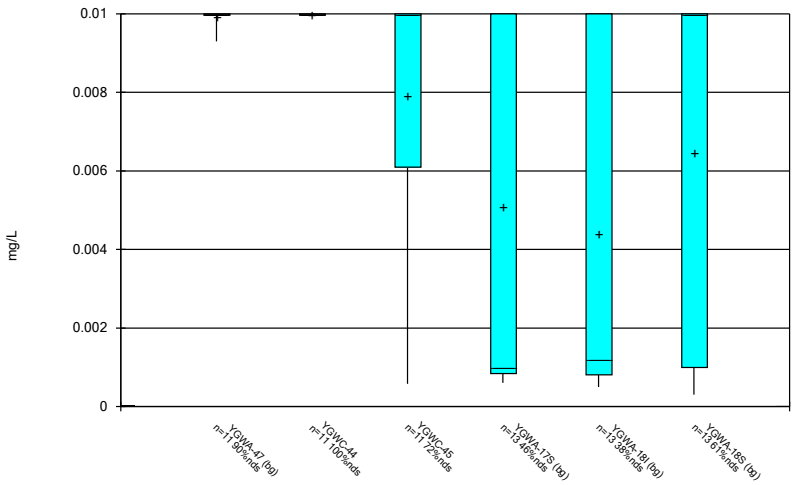
Box & Whiskers Plot

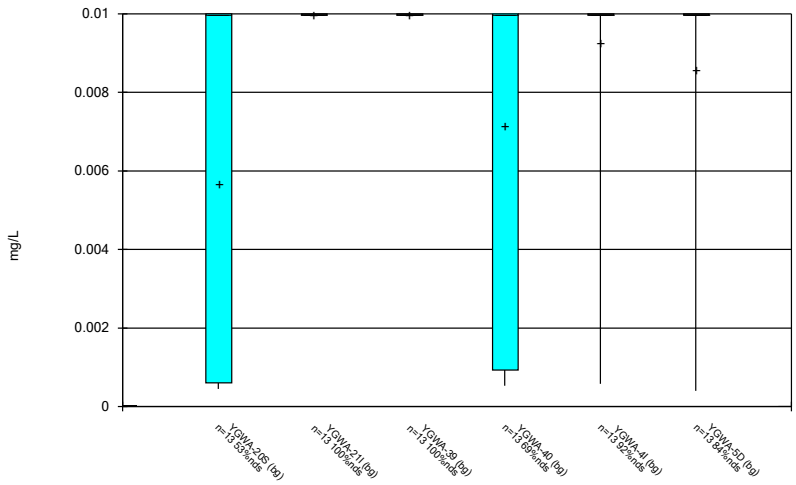


Constituent: Chromium Analysis Run 12/1/2020 12:06 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Box & Whiskers Plot



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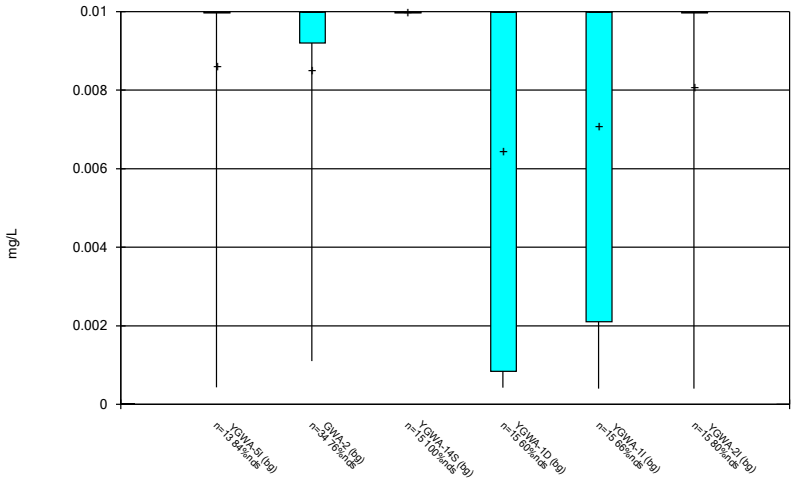
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Box & Whiskers Plot



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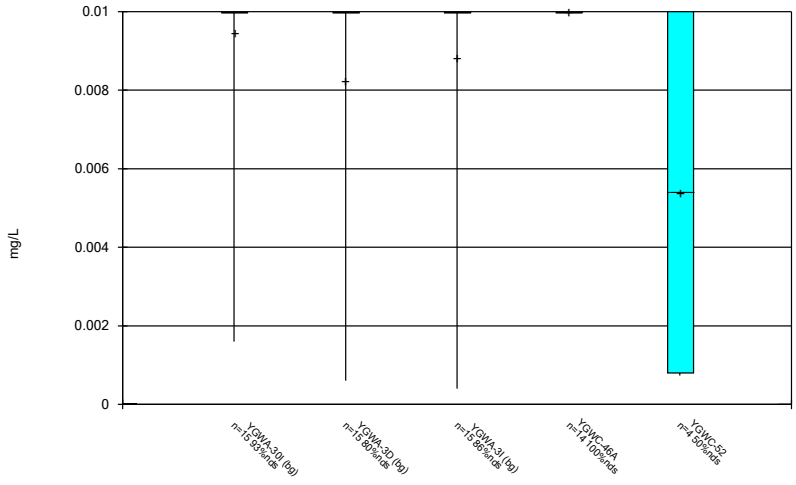
Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Box & Whiskers Plot



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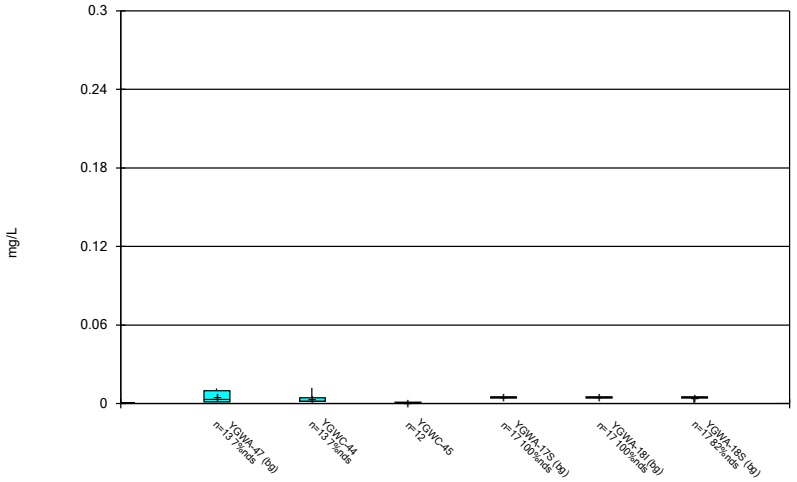
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Box & Whiskers Plot



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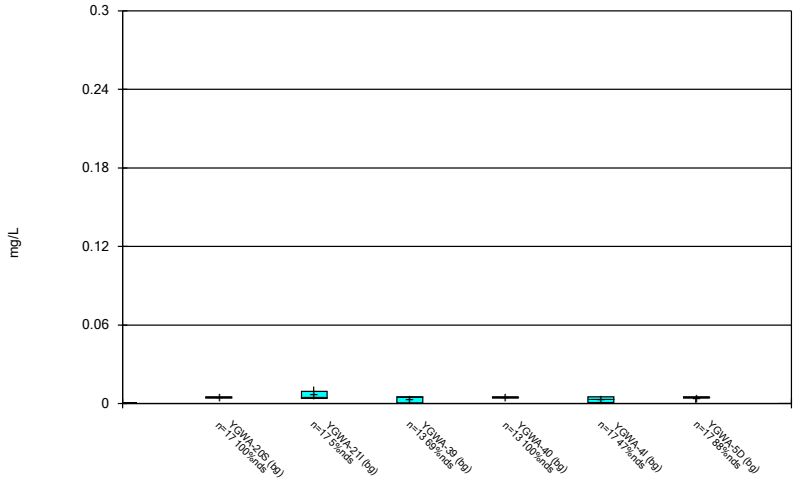
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Box & Whiskers Plot



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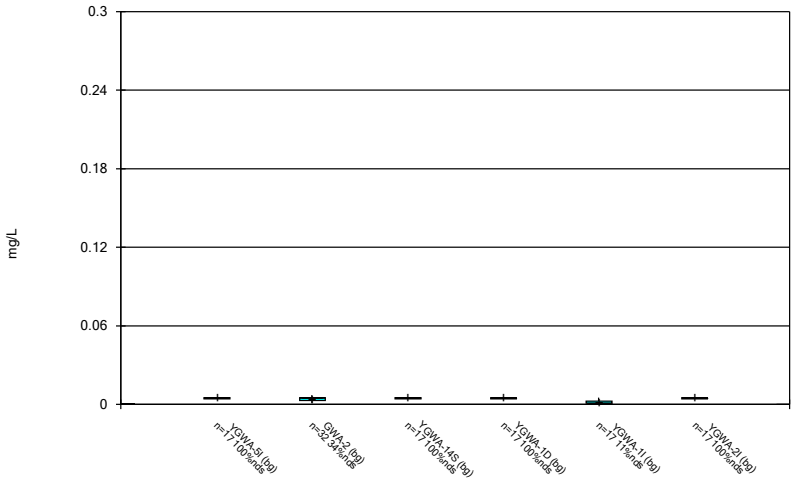
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Box & Whiskers Plot



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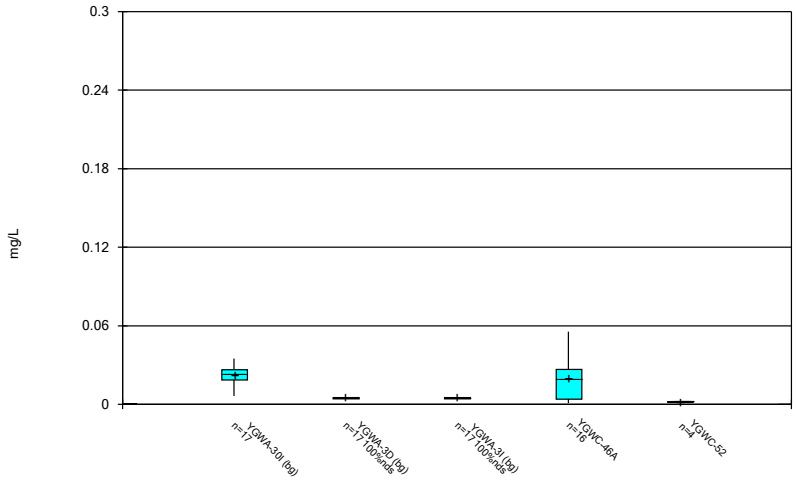
Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Box & Whiskers Plot



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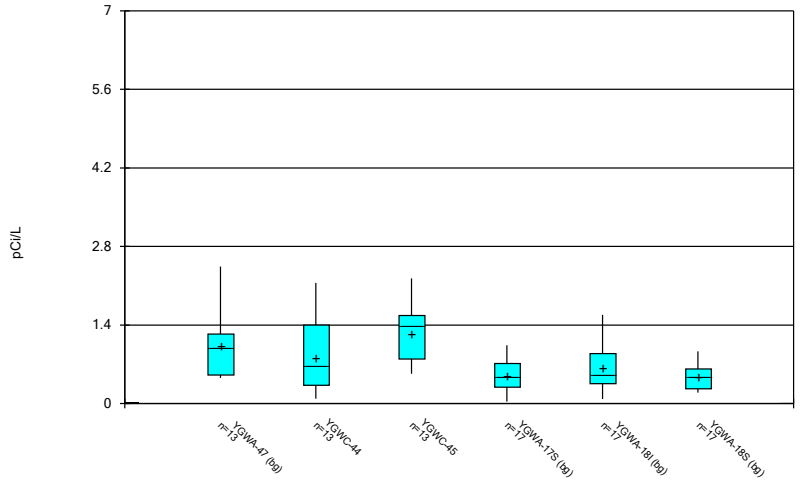
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Box & Whiskers Plot

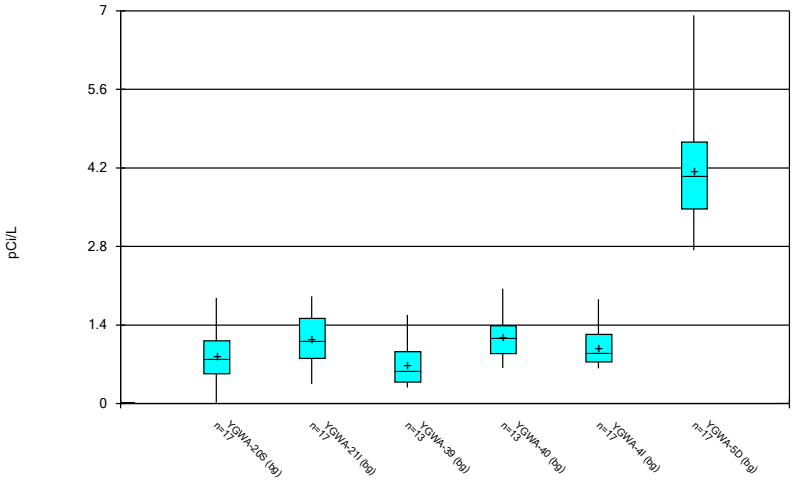


Constituent: Combined Radium 226 + 228 Analysis Run 12/1/2020 12:07 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Box & Whiskers Plot

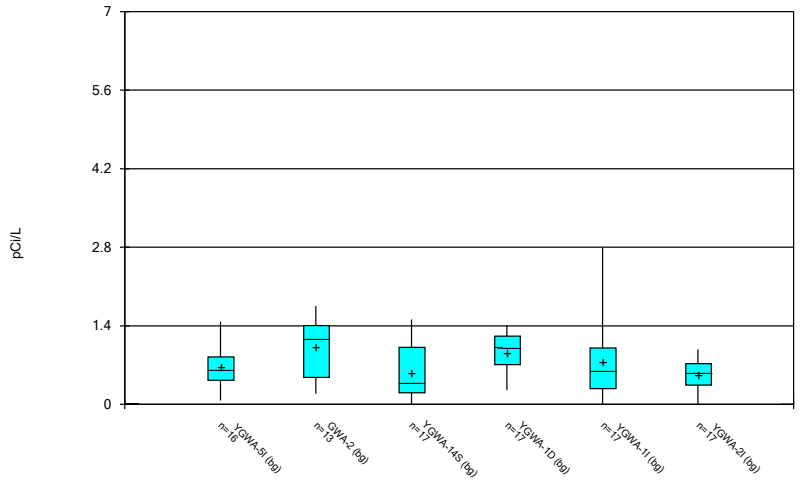


Constituent: Combined Radium 226 + 228 Analysis Run 12/1/2020 12:07 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Box & Whiskers Plot



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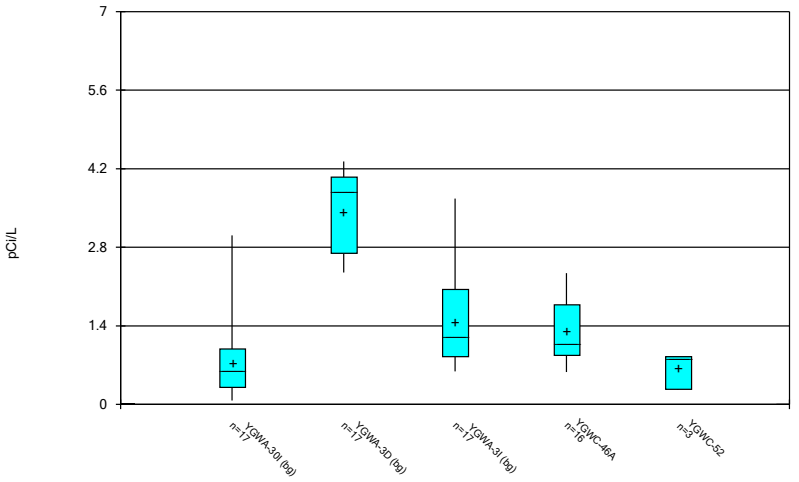
Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Box & Whiskers Plot



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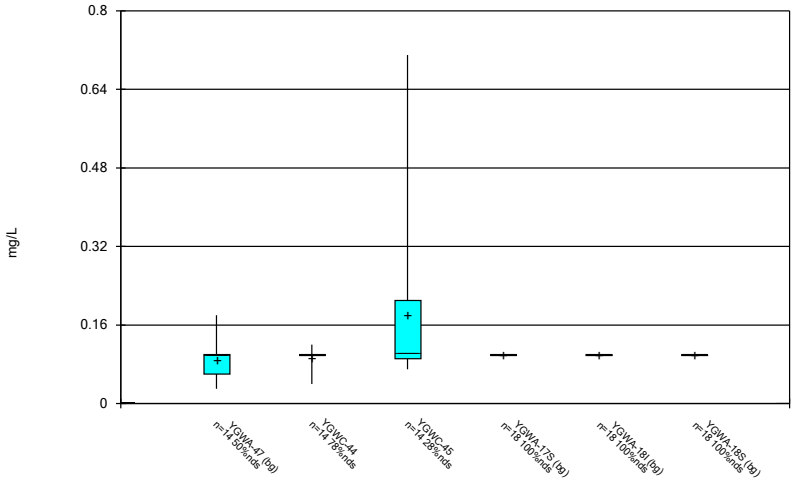
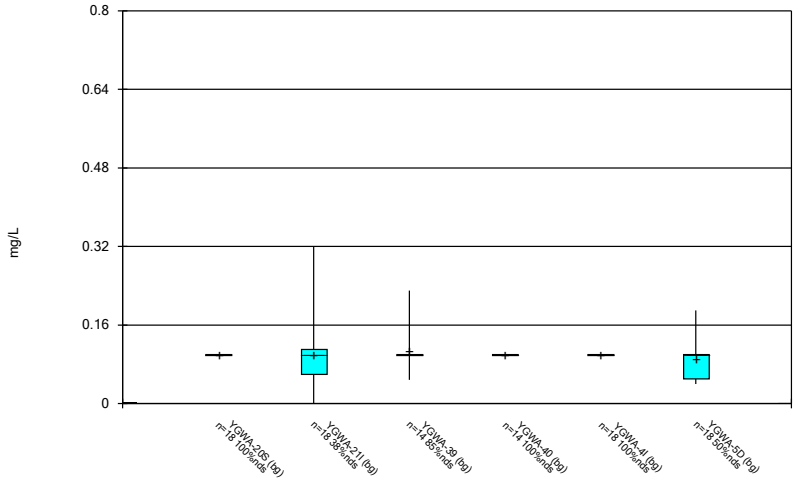
Box & Whiskers Plot



Constituent: Fluoride, total Analysis Run 12/1/2020 12:07 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

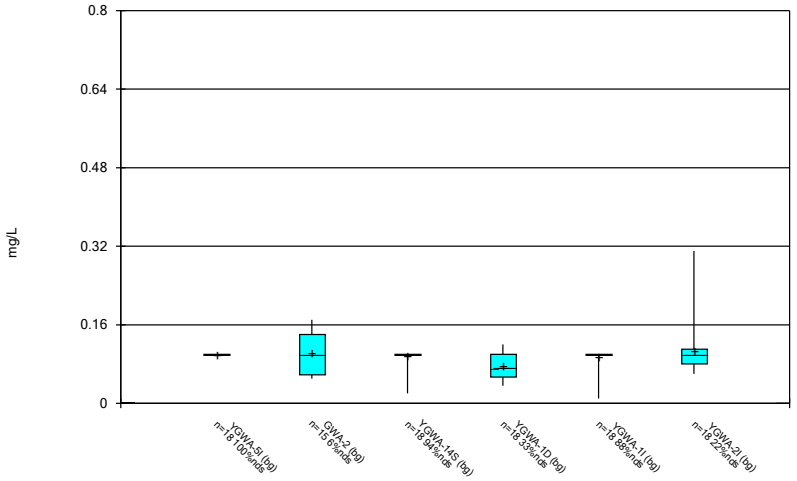
Box & Whiskers Plot



Constituent: Fluoride, total Analysis Run 12/1/2020 12:07 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

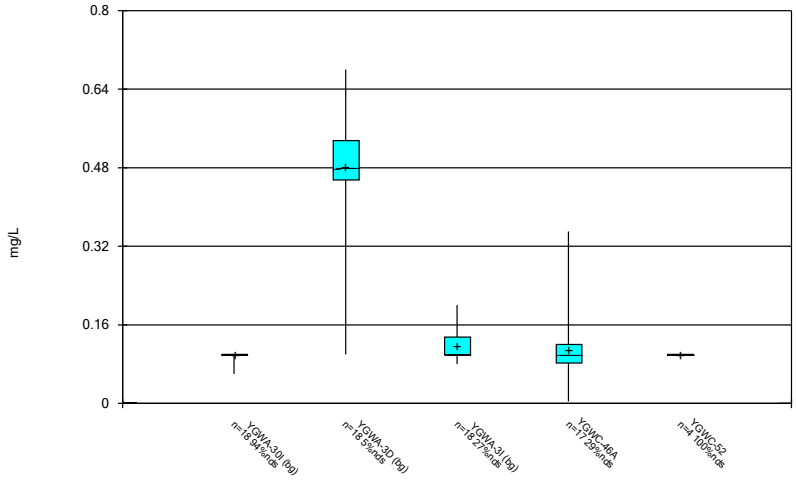
Box & Whiskers Plot



Constituent: Fluoride, total Analysis Run 12/1/2020 12:07 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1

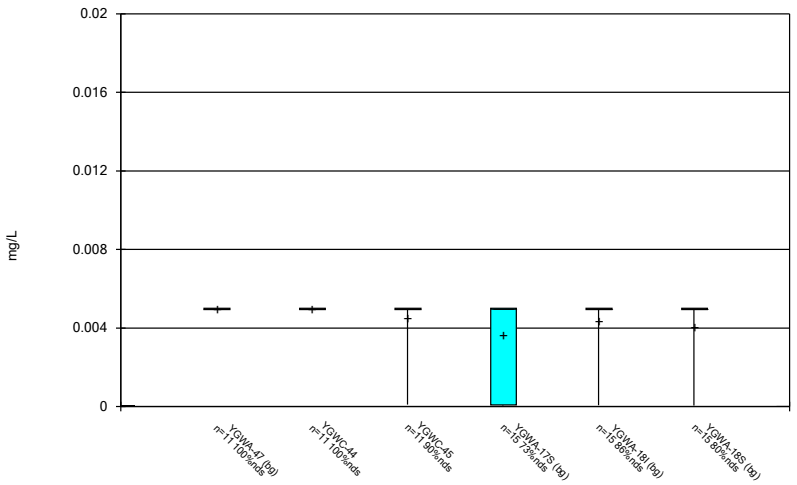
Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Box & Whiskers Plot



Constituent: Fluoride, total Analysis Run 12/1/2020 12:07 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Box & Whiskers Plot



Constituent: Lead Analysis Run 12/1/2020 12:07 PM

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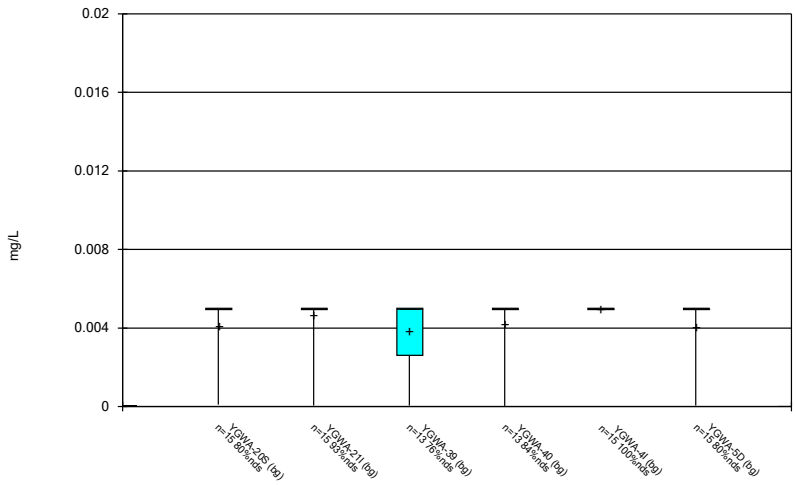
Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Box & Whiskers Plot



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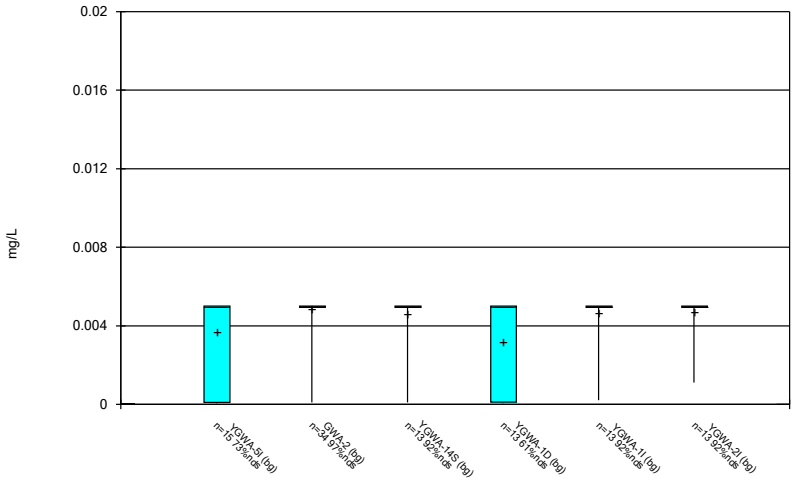
Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Box & Whiskers Plot



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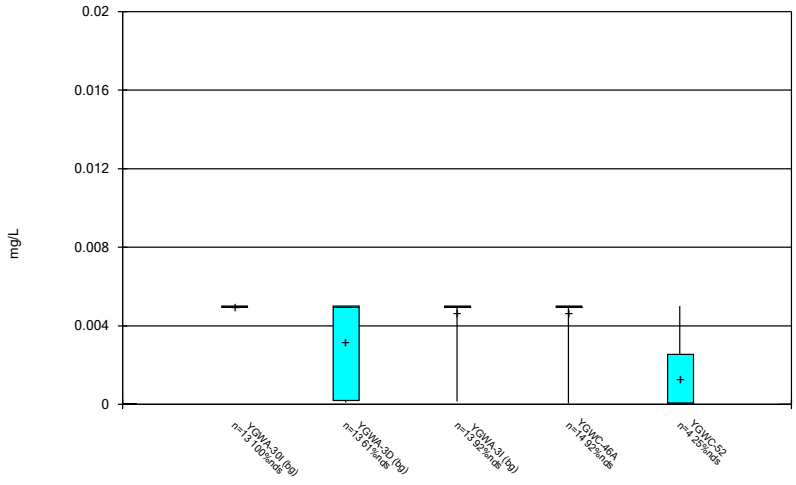
Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Box & Whiskers Plot



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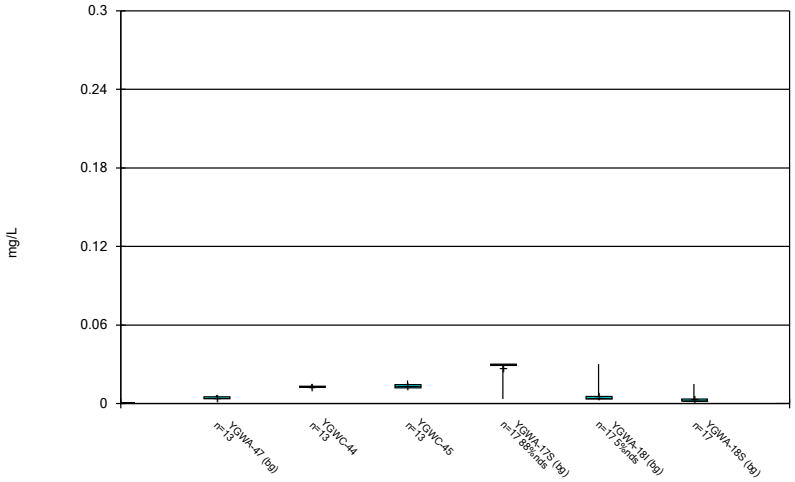
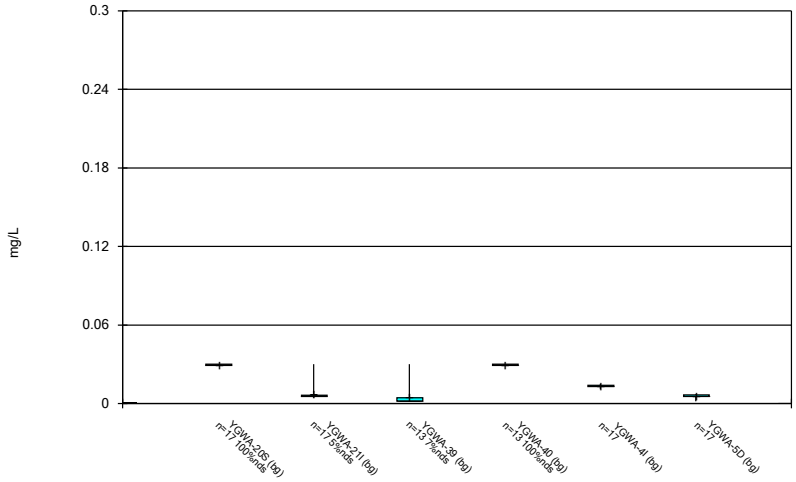


Constituent: Lithium Analysis Run 12/1/2020 12:07 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Box & Whiskers Plot



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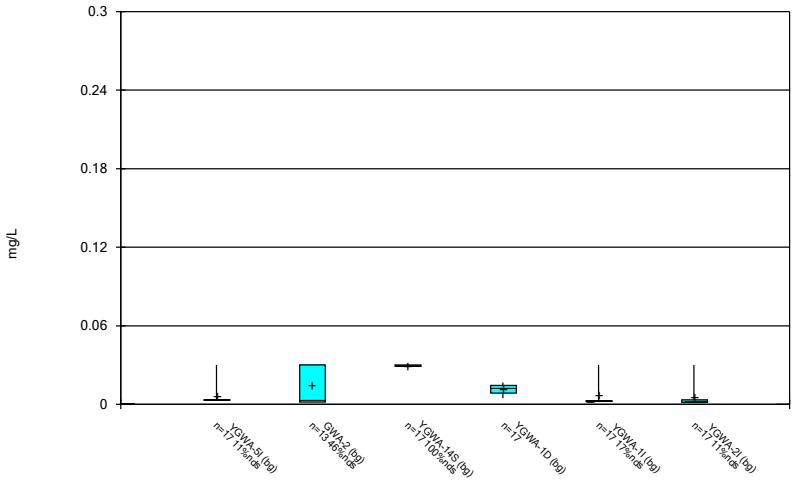
Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Box & Whiskers Plot



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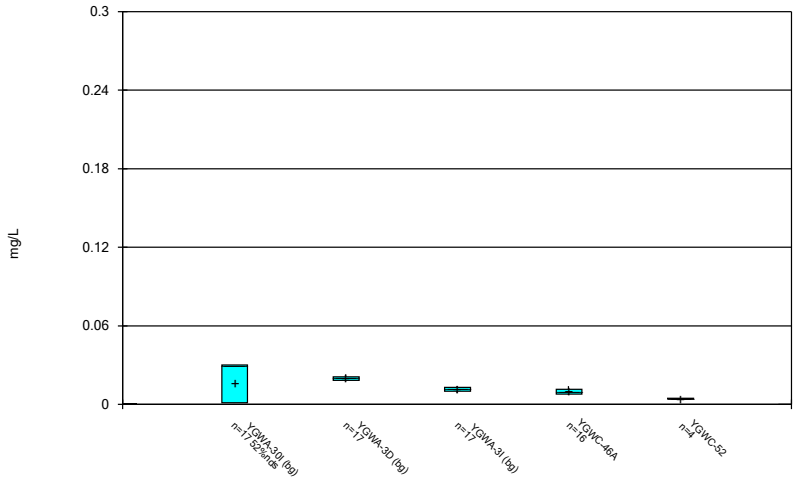
Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

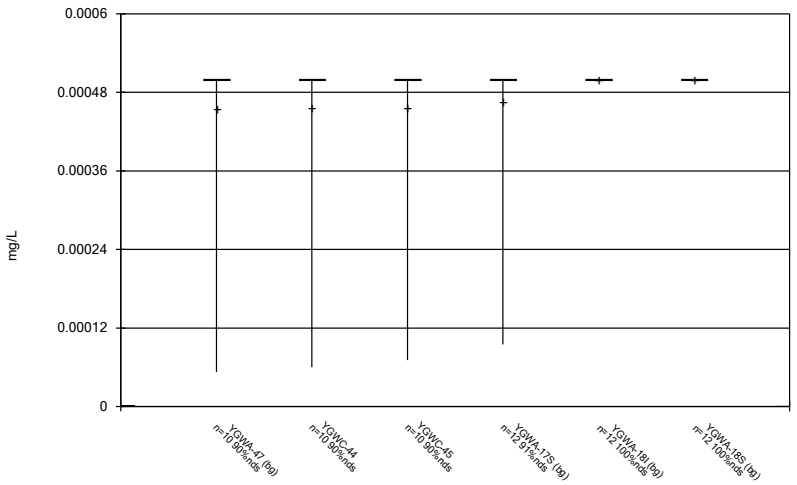
Box & Whiskers Plot



Constituent: Lithium Analysis Run 12/1/2020 12:07 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

Box & Whiskers Plot

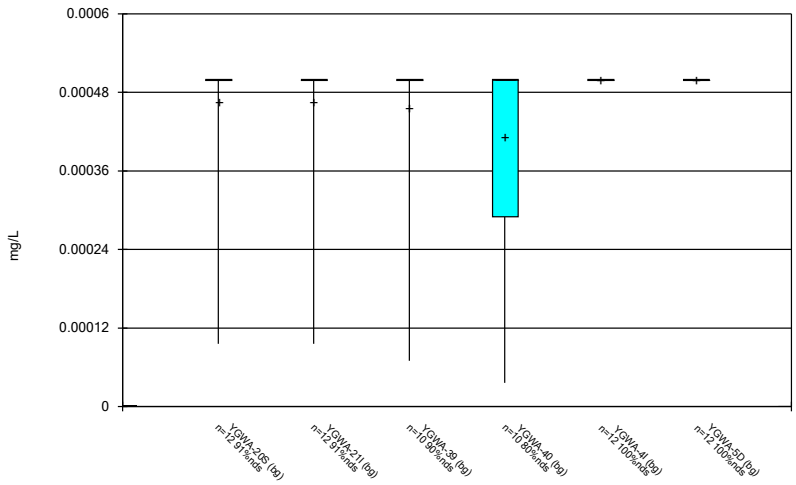


Constituent: Mercury Analysis Run 12/1/2020 12:07 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Box & Whiskers Plot



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Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

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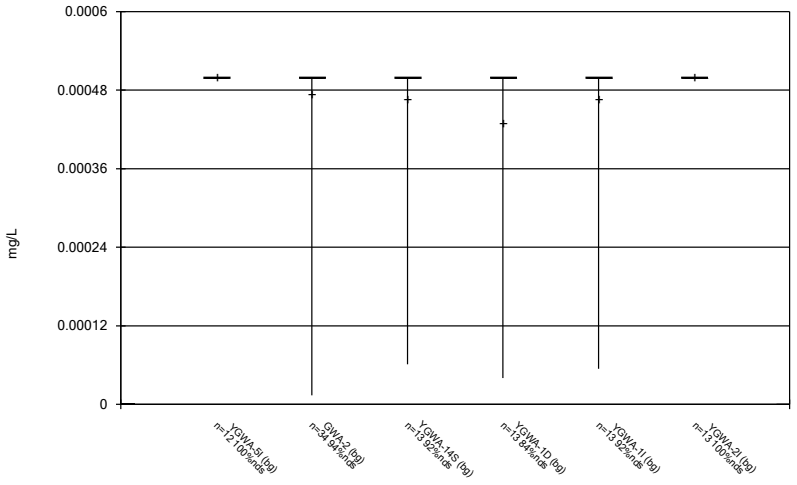

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Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

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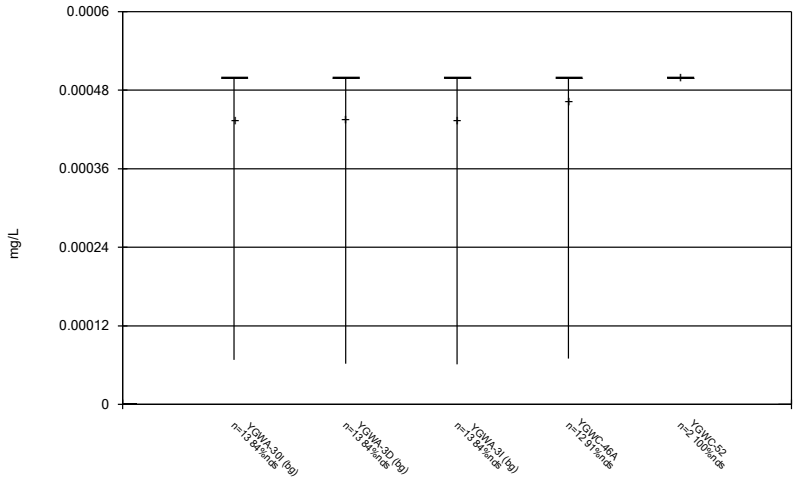

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Plant Yates Client: Southern Company Data: Yates Ash Pond1

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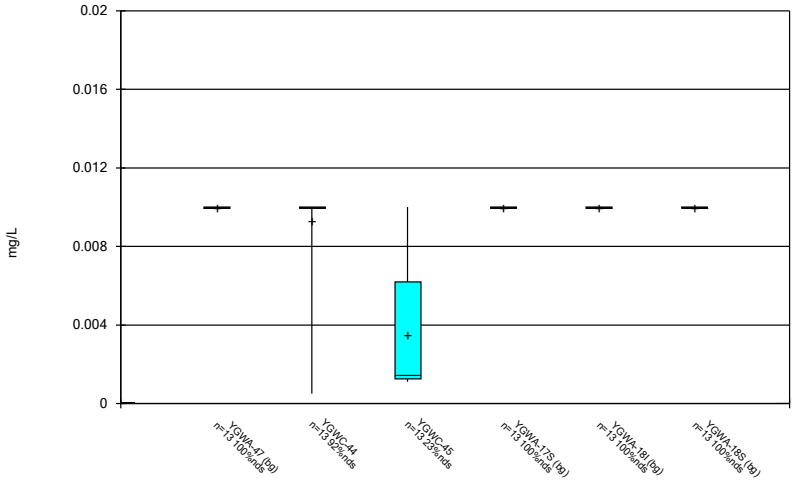
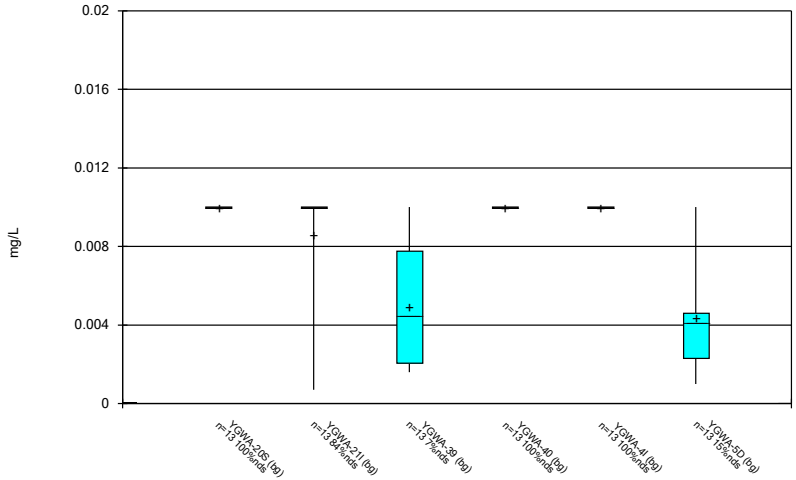


Constituent: Molybdenum Analysis Run 12/1/2020 12:07 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

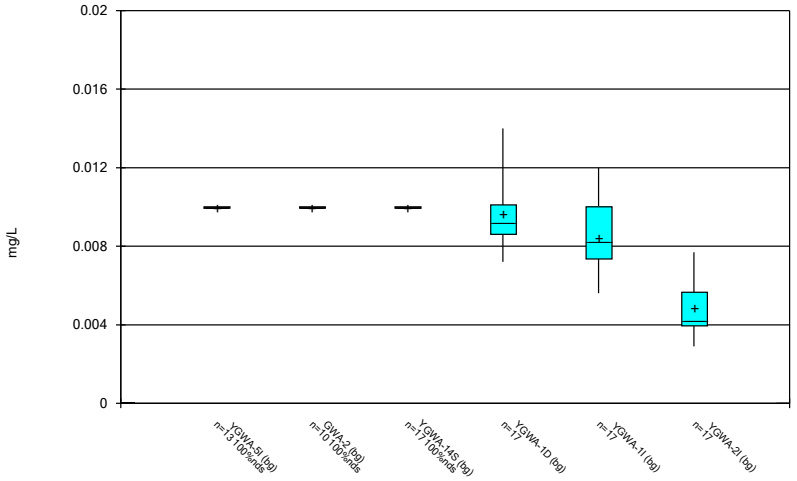
Box & Whiskers Plot



Constituent: Molybdenum Analysis Run 12/1/2020 12:07 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

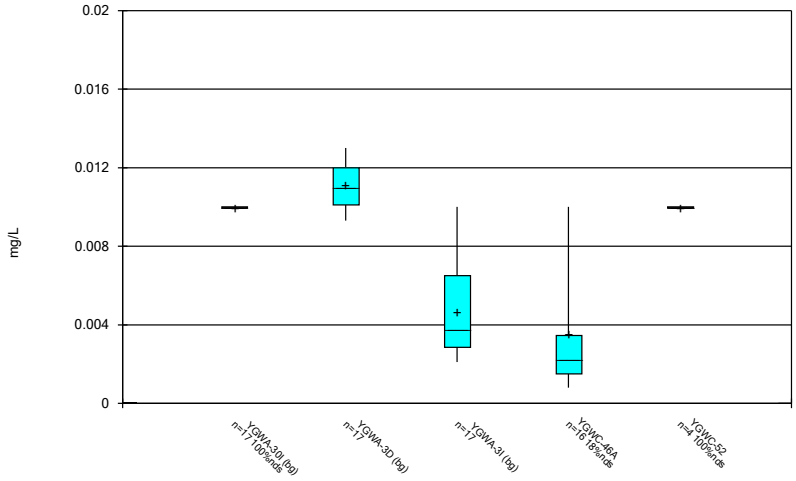
Box & Whiskers Plot



Constituent: Molybdenum Analysis Run 12/1/2020 12:07 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Box & Whiskers Plot



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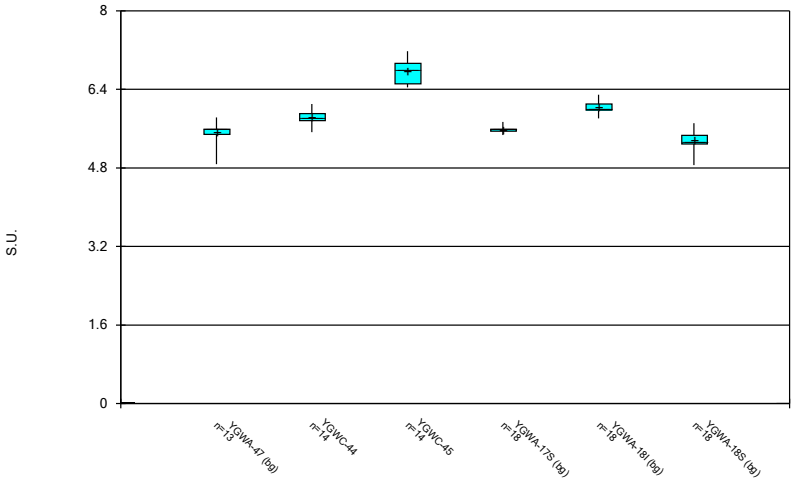
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Box & Whiskers Plot

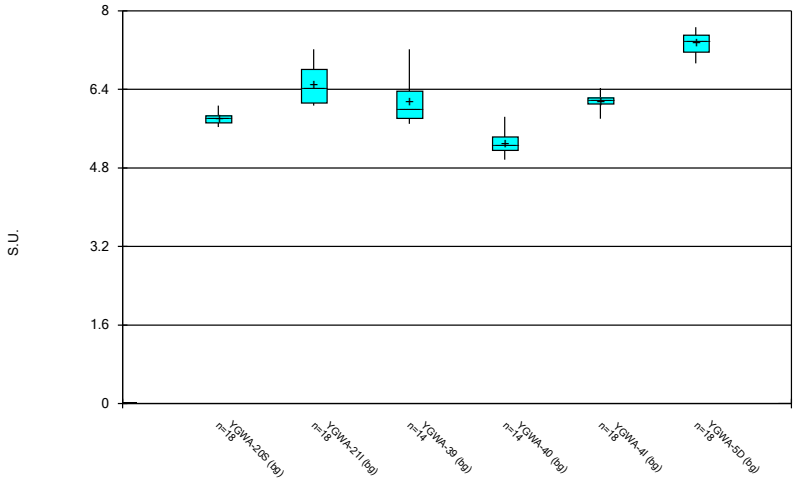


Constituent: pH, Field Analysis Run 12/1/2020 12:07 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Box & Whiskers Plot



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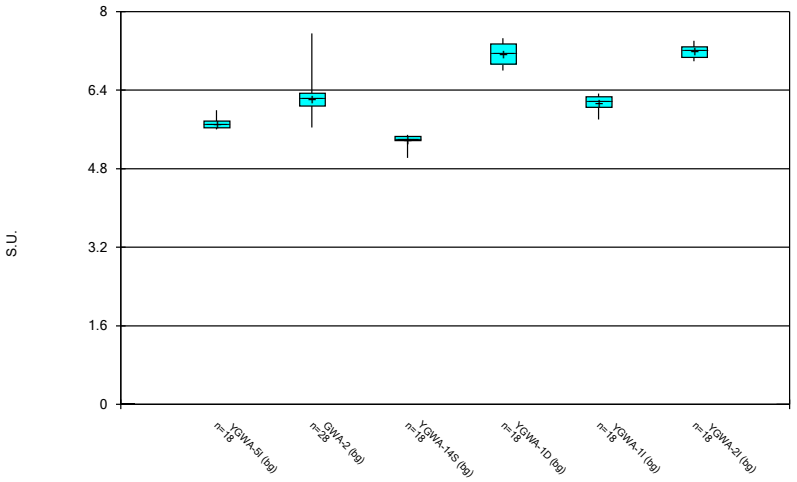
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Box & Whiskers Plot

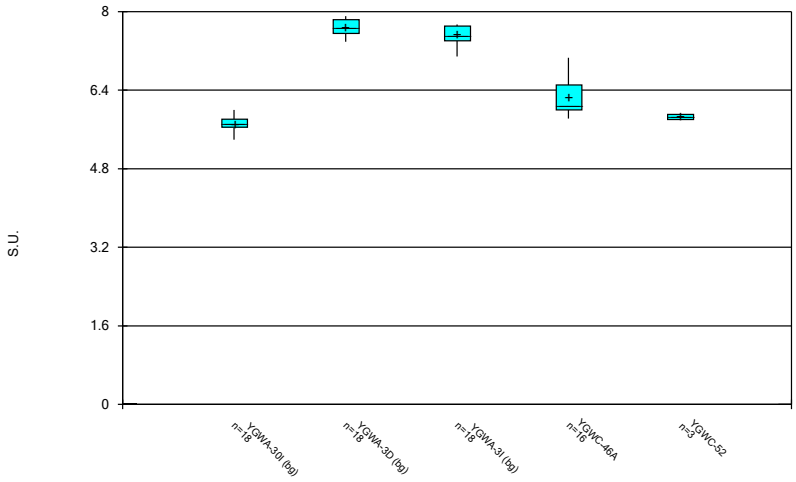


Constituent: pH, Field Analysis Run 12/1/2020 12:07 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

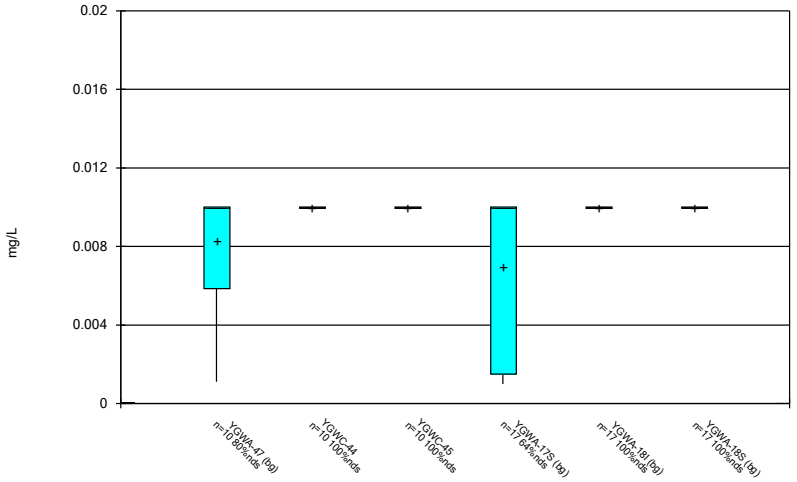
Box & Whiskers Plot



Constituent: pH, Field Analysis Run 12/1/2020 12:07 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

Box & Whiskers Plot

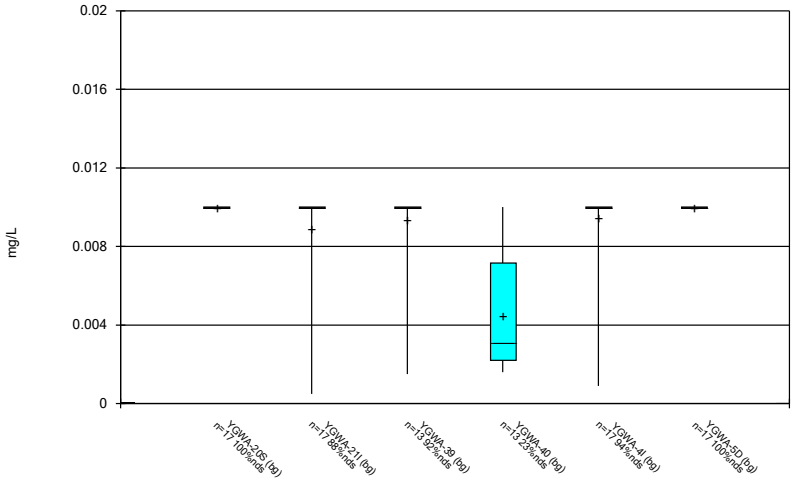


Constituent: Selenium Analysis Run 12/1/2020 12:07 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Box & Whiskers Plot

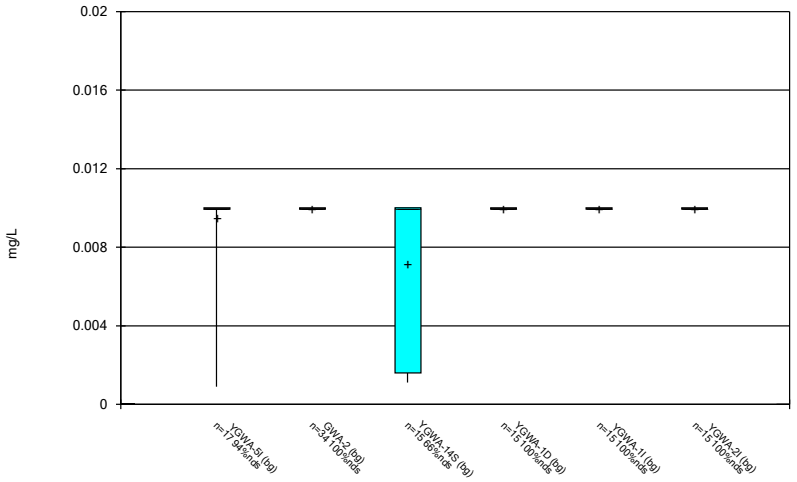


Constituent: Selenium Analysis Run 12/1/2020 12:07 PM

Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Box & Whiskers Plot



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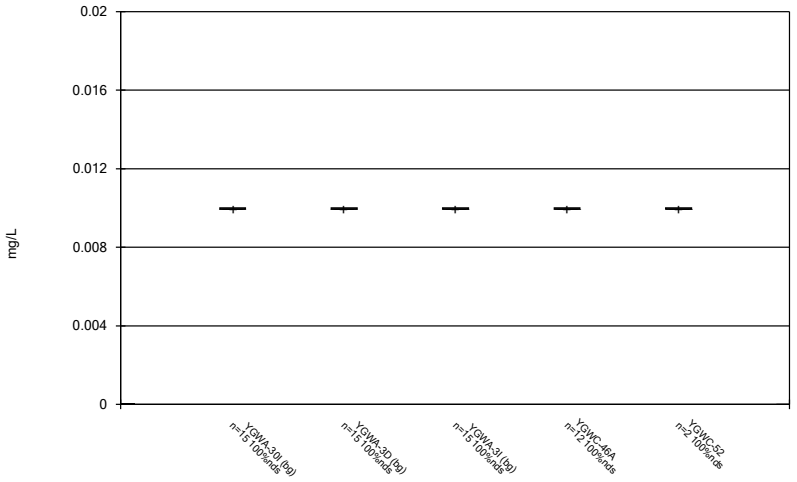
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Box & Whiskers Plot



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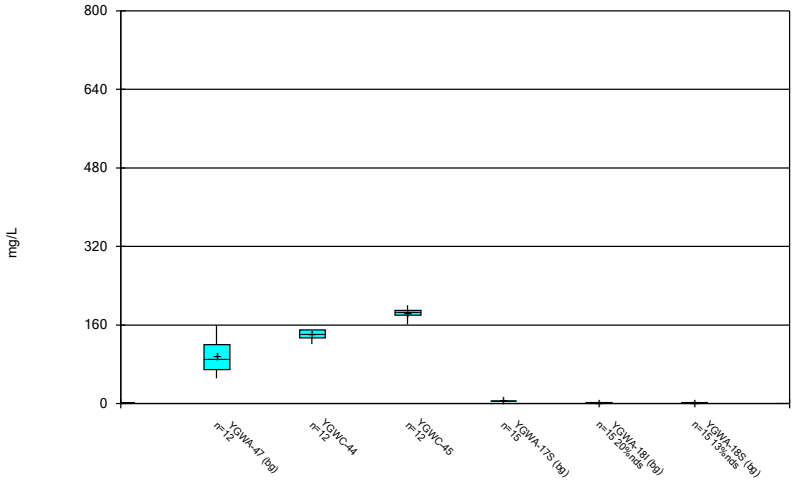
Plant Yates Client: Southern Company Data: Yates Ash Pond1

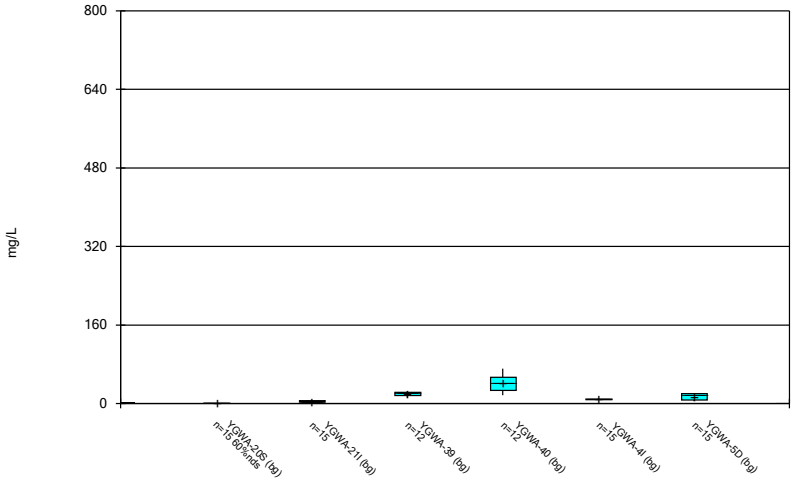
Box & Whiskers Plot



Constituent: Sulfate as SO4 Analysis Run 12/1/2020 12:07 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

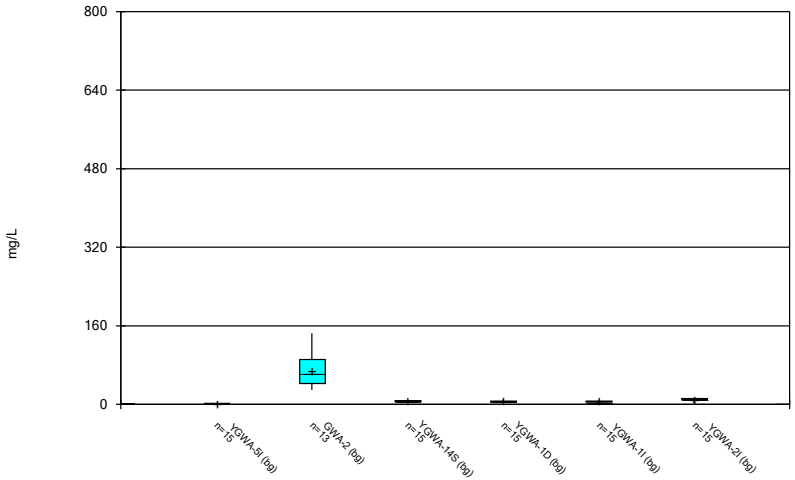
Box & Whiskers Plot



Constituent: Sulfate as SO4 Analysis Run 12/1/2020 12:07 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

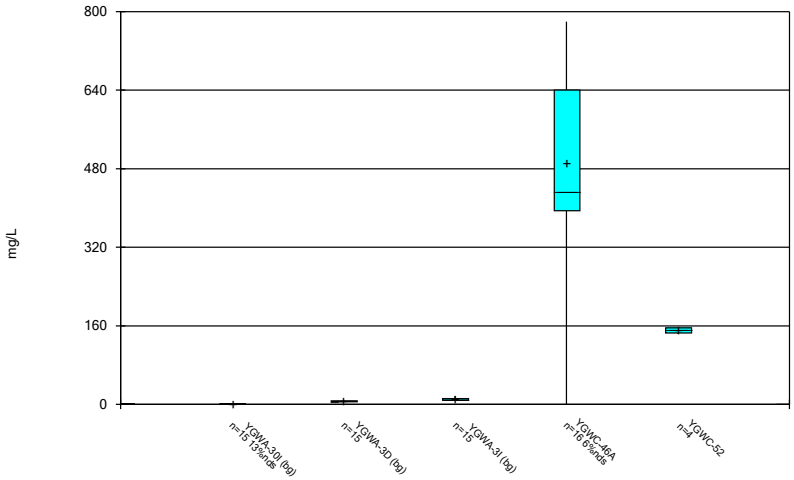
Box & Whiskers Plot



Constituent: Sulfate as SO4 Analysis Run 12/1/2020 12:07 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Box & Whiskers Plot



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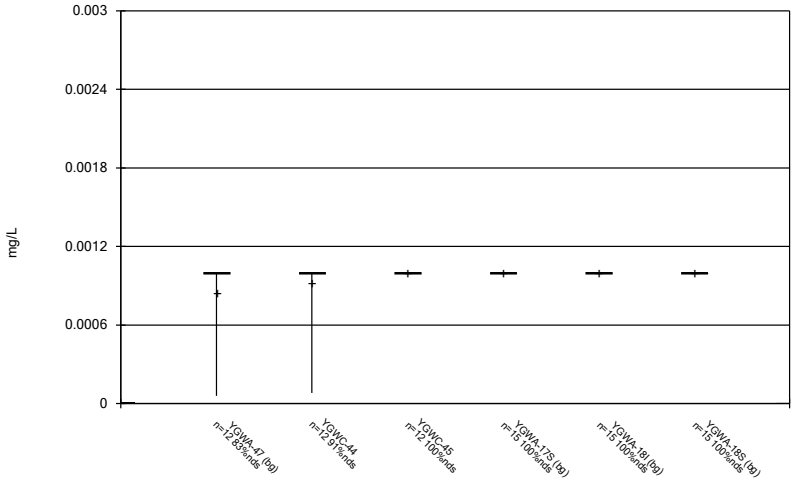
Plant Yates Client: Southern Company Data: Yates Ash Pond1

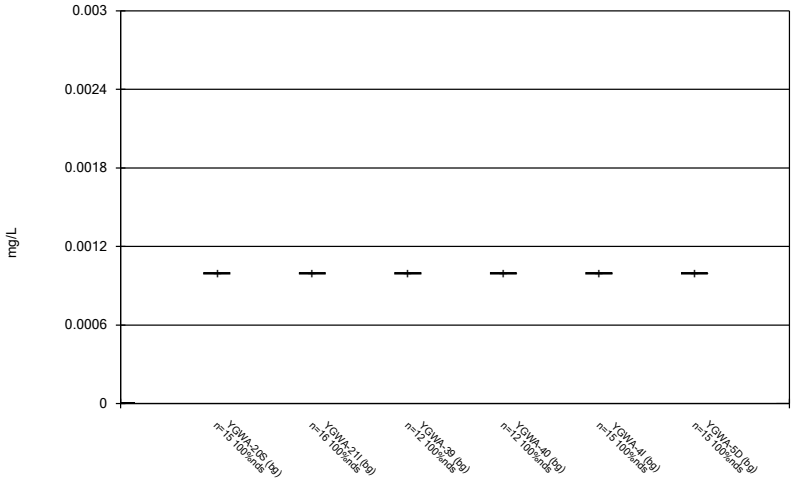
Box & Whiskers Plot



Constituent: Thallium Analysis Run 12/1/2020 12:07 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

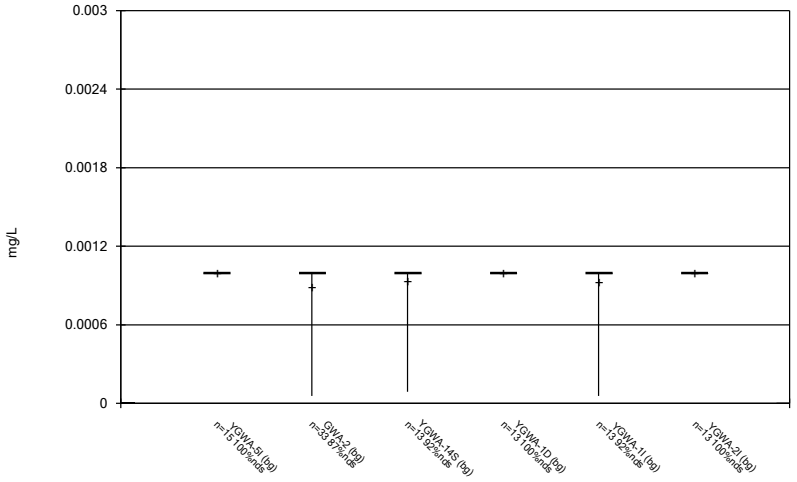
Box & Whiskers Plot



Constituent: Thallium Analysis Run 12/1/2020 12:07 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

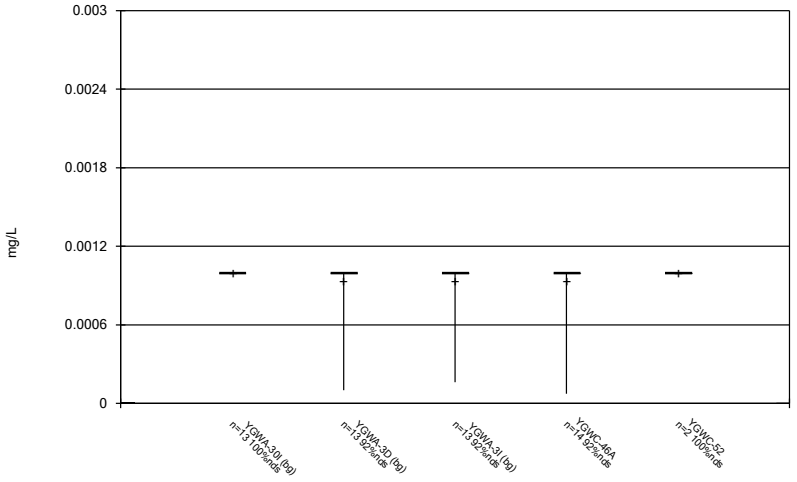
Box & Whiskers Plot



Constituent: Thallium Analysis Run 12/1/2020 12:07 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1

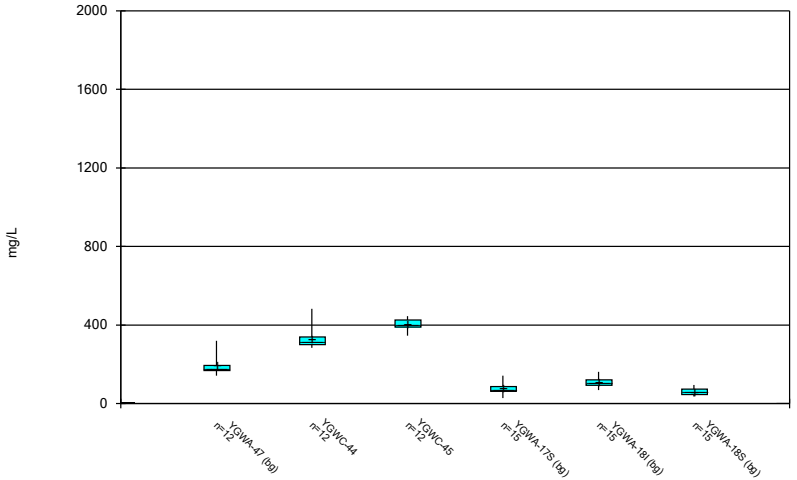
Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Box & Whiskers Plot



Constituent: Thallium Analysis Run 12/1/2020 12:07 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1

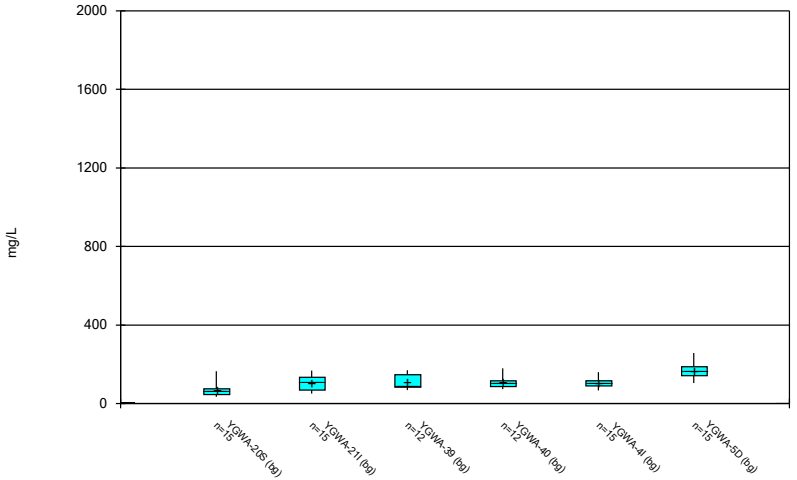
Box & Whiskers Plot



Constituent: Total Dissolved Solids [TDS] Analysis Run 12/1/2020 12:07 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

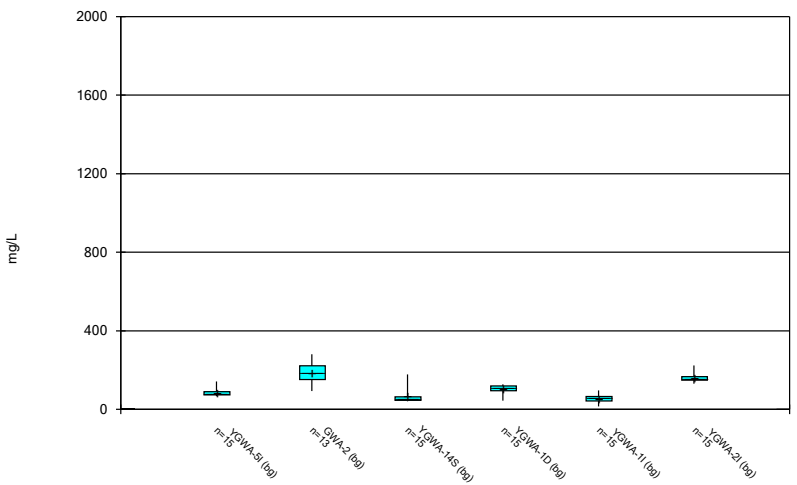
Box & Whiskers Plot



Constituent: Total Dissolved Solids [TDS] Analysis Run 12/1/2020 12:07 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

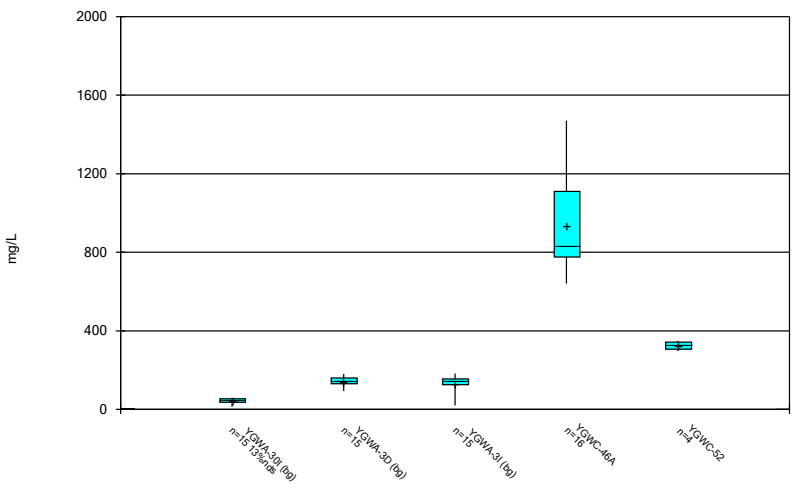
Box & Whiskers Plot



Constituent: Total Dissolved Solids [TDS] Analysis Run 12/1/2020 12:07 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Box & Whiskers Plot



Constituent: Total Dissolved Solids [TDS] Analysis Run 12/1/2020 12:07 PM
Plant Yates Client: Southern Company Data: Yates Ash Pond1

FIGURE C.

Outlier Summary

Plant Yates Client: Southern Company Data: Yates Ash Pond1 Printed 11/23/2020, 2:09 PM

	YGWC-45 Cobalt (mg/L)	GWA-2 Cobalt (mg/L)	YGWA-47 pH (S.U.)
4/2/2018			6.3 (o)
4/3/2018	<0.01 (o)		
8/26/2020		0.2 (o)	
9/22/2020		0.16 (o)	

FIGURE D.

Appendix III - Interwell Prediction Limits - Significant Results

Plant Yates Client: Southern Company Data: Yates Ash Pond1 Printed 11/25/2020, 7:46 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	YGWC-44	0.16	n/a	9/22/2020	0.59	Yes	274	n/a	n/a	45.62	n/a	n/a	0.00004922	NP Inter (normality) 1 of 2
Boron (mg/L)	YGWC-45	0.16	n/a	9/23/2020	0.32	Yes	274	n/a	n/a	45.62	n/a	n/a	0.00004922	NP Inter (normality) 1 of 2
Boron (mg/L)	YGWC-46A	0.16	n/a	9/23/2020	2	Yes	274	n/a	n/a	45.62	n/a	n/a	0.00004922	NP Inter (normality) 1 of 2
Calcium (mg/L)	YGWC-45	37	n/a	9/23/2020	50	Yes	274	n/a	n/a	1.095	n/a	n/a	0.00004922	NP Inter (normality) 1 of 2
Calcium (mg/L)	YGWC-46A	37	n/a	9/23/2020	104	Yes	274	n/a	n/a	1.095	n/a	n/a	0.00004922	NP Inter (normality) 1 of 2
Calcium (mg/L)	YGWC-52	37	n/a	9/22/2020	53.5	Yes	274	n/a	n/a	1.095	n/a	n/a	0.00004922	NP Inter (normality) 1 of 2
Chloride (mg/L)	YGWC-44	7.9	n/a	9/22/2020	14.4	Yes	274	n/a	n/a	0	n/a	n/a	0.00004922	NP Inter (normality) 1 of 2
Chloride (mg/L)	YGWC-46A	7.9	n/a	9/23/2020	28.1	Yes	274	n/a	n/a	0	n/a	n/a	0.00004922	NP Inter (normality) 1 of 2
Sulfate (mg/L)	YGWC-45	160	n/a	9/23/2020	170	Yes	274	n/a	n/a	5.839	n/a	n/a	0.00004922	NP Inter (normality) 1 of 2
Sulfate (mg/L)	YGWC-46A	160	n/a	9/23/2020	430	Yes	274	n/a	n/a	5.839	n/a	n/a	0.00004922	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	YGWC-44	208.9	n/a	9/22/2020	294	Yes	274	10.05	2.547	0.7299	None	sqrt(x)	0.00188	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	YGWC-45	208.9	n/a	9/23/2020	404	Yes	274	10.05	2.547	0.7299	None	sqrt(x)	0.00188	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	YGWC-46A	208.9	n/a	9/23/2020	832	Yes	274	10.05	2.547	0.7299	None	sqrt(x)	0.00188	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	YGWC-52	208.9	n/a	9/22/2020	296	Yes	274	10.05	2.547	0.7299	None	sqrt(x)	0.00188	Param Inter 1 of 2

Appendix III - Interwell Prediction Limits - All Results

Plant Yates Client: Southern Company Data: Yates Ash Pond1 Printed 11/25/2020, 7:46 PM

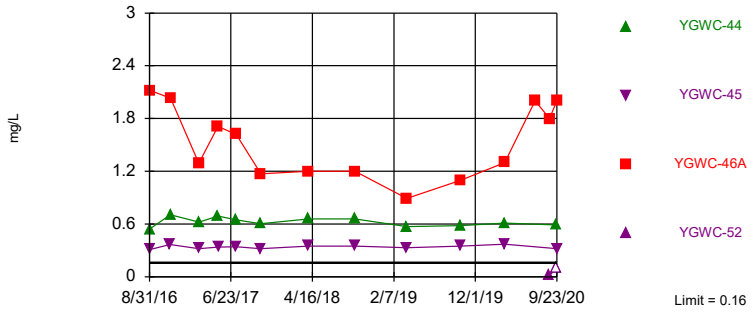
Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	**YGWC-44**	**0.16**	**n/a**	**9/22/2020**	**0.59**	**Yes**	**274**	**n/a**	**n/a**	**45.62**	**n/a**	**n/a**	**0.00004922**	**NP Inter (normality) 1 of 2**
Boron (mg/L)	**YGWC-45**	**0.16**	**n/a**	**9/23/2020**	**0.32**	**Yes**	**274**	**n/a**	**n/a**	**45.62**	**n/a**	**n/a**	**0.00004922**	**NP Inter (normality) 1 of 2**
Boron (mg/L)	**YGWC-46A**	**0.16**	**n/a**	**9/23/2020**	**2**	**Yes**	**274**	**n/a**	**n/a**	**45.62**	**n/a**	**n/a**	**0.00004922**	**NP Inter (normality) 1 of 2**
Boron (mg/L)	YGWC-52	0.16	n/a	9/22/2020	0.1ND	No	274	n/a	n/a	45.62	n/a	n/a	0.00004922	NP Inter (normality) 1 of 2
Calcium (mg/L)	YGWC-44	37	n/a	9/22/2020	30.4	No	274	n/a	n/a	1.095	n/a	n/a	0.00004922	NP Inter (normality) 1 of 2
Calcium (mg/L)	**YGWC-45**	**37**	**n/a**	**9/23/2020**	**50**	**Yes**	**274**	**n/a**	**n/a**	**1.095**	**n/a**	**n/a**	**0.00004922**	**NP Inter (normality) 1 of 2**
Calcium (mg/L)	**YGWC-46A**	**37**	**n/a**	**9/23/2020**	**104**	**Yes**	**274**	**n/a**	**n/a**	**1.095**	**n/a**	**n/a**	**0.00004922**	**NP Inter (normality) 1 of 2**
Calcium (mg/L)	**YGWC-52**	**37**	**n/a**	**9/22/2020**	**53.5**	**Yes**	**274**	**n/a**	**n/a**	**1.095**	**n/a**	**n/a**	**0.00004922**	**NP Inter (normality) 1 of 2**
Chloride (mg/L)	**YGWC-44**	**7.9**	**n/a**	**9/22/2020**	**14.4**	**Yes**	**274**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.00004922**	**NP Inter (normality) 1 of 2**
Chloride (mg/L)	YGWC-45	7.9	n/a	9/23/2020	4.9	No	274	n/a	n/a	0	n/a	n/a	0.00004922	NP Inter (normality) 1 of 2
Chloride (mg/L)	**YGWC-46A**	**7.9**	**n/a**	**9/23/2020**	**28.1**	**Yes**	**274**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.00004922**	**NP Inter (normality) 1 of 2**
Chloride (mg/L)	YGWC-52	7.9	n/a	9/22/2020	4.1	No	274	n/a	n/a	0	n/a	n/a	0.00004922	NP Inter (normality) 1 of 2
Fluoride (mg/L)	YGWC-44	0.68	n/a	9/22/2020	0.1ND	No	327	n/a	n/a	68.5	n/a	n/a	0.00004922	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	YGWC-45	0.68	n/a	9/23/2020	0.082J	No	327	n/a	n/a	68.5	n/a	n/a	0.00004922	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	YGWC-46A	0.68	n/a	9/23/2020	0.12	No	327	n/a	n/a	68.5	n/a	n/a	0.00004922	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	YGWC-52	0.68	n/a	9/22/2020	0.1ND	No	327	n/a	n/a	68.5	n/a	n/a	0.00004922	NP Inter (NDs) 1 of 2
pH (S.U.)	YGWC-44	7.91	4.86	9/22/2020	5.53	No	339	n/a	n/a	0	n/a	n/a	0.00009844	NP Inter (normality) 1 of 2
pH (S.U.)	YGWC-45	7.91	4.86	9/23/2020	6.57	No	339	n/a	n/a	0	n/a	n/a	0.00009844	NP Inter (normality) 1 of 2
pH (S.U.)	YGWC-46A	7.91	4.86	9/23/2020	6.81	No	339	n/a	n/a	0	n/a	n/a	0.00009844	NP Inter (normality) 1 of 2
pH (S.U.)	YGWC-52	7.91	4.86	9/22/2020	5.91	No	339	n/a	n/a	0	n/a	n/a	0.00009844	NP Inter (normality) 1 of 2
Sulfate (mg/L)	YGWC-44	160	n/a	9/22/2020	130	No	274	n/a	n/a	5.839	n/a	n/a	0.00004922	NP Inter (normality) 1 of 2
Sulfate (mg/L)	**YGWC-45**	**160**	**n/a**	**9/23/2020**	**170**	**Yes**	**274**	**n/a**	**n/a**	**5.839**	**n/a**	**n/a**	**0.00004922**	**NP Inter (normality) 1 of 2**
Sulfate (mg/L)	**YGWC-46A**	**160**	**n/a**	**9/23/2020**	**430**	**Yes**	**274**	**n/a**	**n/a**	**5.839**	**n/a**	**n/a**	**0.00004922**	**NP Inter (normality) 1 of 2**
Sulfate (mg/L)	YGWC-52	160	n/a	9/22/2020	156	No	274	n/a	n/a	5.839	n/a	n/a	0.00004922	NP Inter (normality) 1 of 2
Total Dissolved Solids (mg/L)	**YGWC-44**	**208.9**	**n/a**	**9/22/2020**	**294**	**Yes**	**274**	**10.05**	**2.547**	**0.7299**	**None**	**sqrt(x)**	**0.00188**	**Param Inter 1 of 2**
Total Dissolved Solids (mg/L)	**YGWC-45**	**208.9**	**n/a**	**9/23/2020**	**404**	**Yes**	**274**	**10.05**	**2.547**	**0.7299**	**None**	**sqrt(x)**	**0.00188**	**Param Inter 1 of 2**
Total Dissolved Solids (mg/L)	**YGWC-46A**	**208.9**	**n/a**	**9/23/2020**	**832**	**Yes**	**274**	**10.05**	**2.547**	**0.7299**	**None**	**sqrt(x)**	**0.00188**	**Param Inter 1 of 2**
Total Dissolved Solids (mg/L)	**YGWC-52**	**208.9**	**n/a**	**9/22/2020**	**296**	**Yes**	**274**	**10.05**	**2.547**	**0.7299**	**None**	**sqrt(x)**	**0.00188**	**Param Inter 1 of 2**

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Exceeds Limit: YGWC-44, YGWC-45, YGWC-46A

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 274 background values. 45.62% NDs. Annual per-constituent alpha = 0.0003937. Individual comparison alpha = 0.00004922 (1 of 2). Comparing 4 points to limit.

Constituent: Boron Analysis Run 11/25/2020 7:45 PM View: Appendix III

Plant Yates Client: Southern Company Data: Yates Ash Pond1

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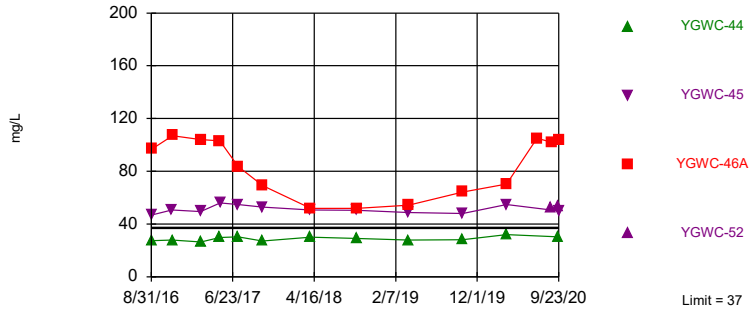
Exceeds Limit: YGWC-45, YGWC-46A, YGWC-52

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 274 background values. 1.095% NDs. Annual per-constituent alpha = 0.0003937. Individual comparison alpha = 0.00004922 (1 of 2). Comparing 4 points to limit.

Constituent: Calcium Analysis Run 11/25/2020 7:45 PM View: Appendix III

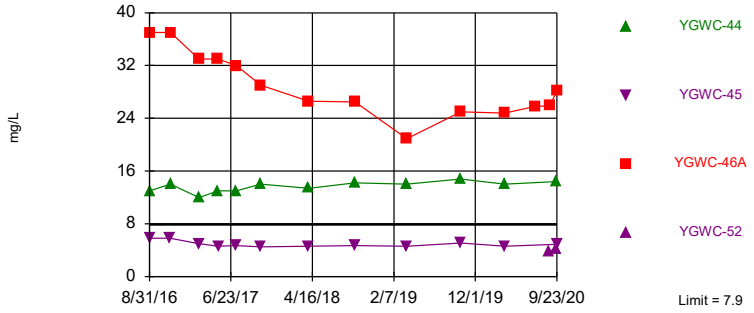
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Exceeds Limit: YGWC-44, YGWC-46A

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 274 background values. Annual per-constituent alpha = 0.0003937. Individual comparison alpha = 0.00004922 (1 of 2). Comparing 4 points to limit.

Constituent: Chloride Analysis Run 11/25/2020 7:45 PM View: Appendix III

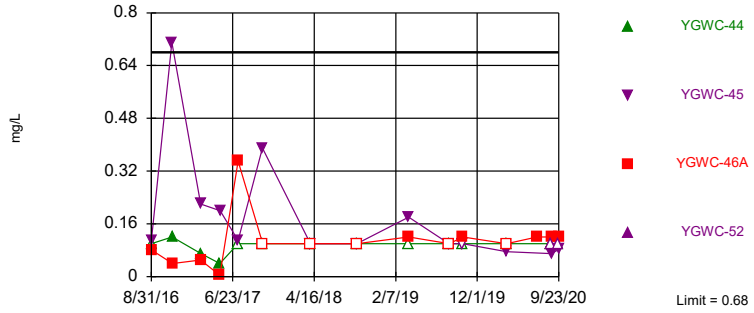
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 327 background values. 68.5% NDs. Annual per-constituent alpha = 0.0003937. Individual comparison alpha = 0.00004922 (1 of 2). Comparing 4 points to limit.

Constituent: Fluoride Analysis Run 11/25/2020 7:45 PM View: Appendix III

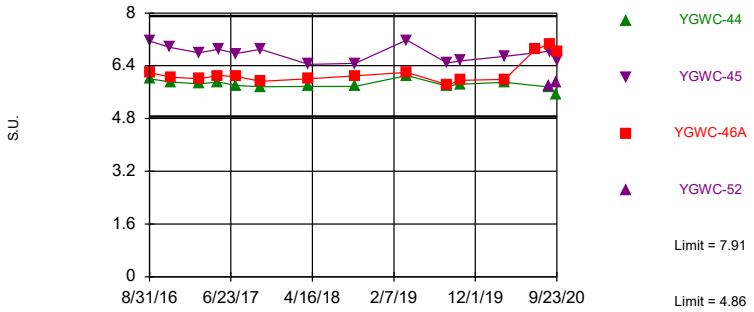
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Within Limits

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limits are highest and lowest of 339 background values. Annual per-constituent alpha = 0.0007874. Individual comparison alpha = 0.00009844 (1 of 2). Comparing 4 points to limit.

Constituent: pH Analysis Run 11/25/2020 7:45 PM View: Appendix III

Plant Yates Client: Southern Company Data: Yates Ash Pond1

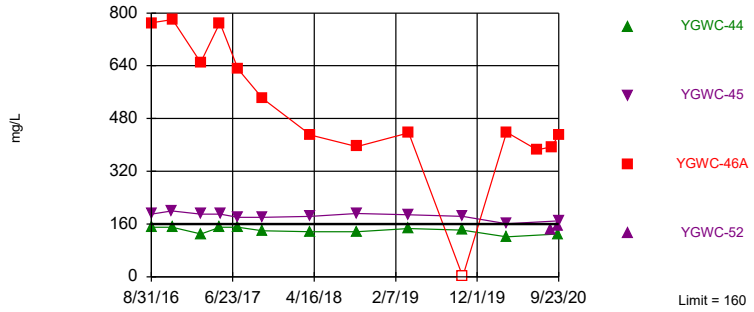
Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Hollow symbols indicate censored values.

Exceeds Limit: YGWC-45, YGWC-46A

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Chi Squared normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 274 background values. 5.839% NDs. Annual per-constituent alpha = 0.0003937. Individual comparison alpha = 0.00004922 (1 of 2). Comparing 4 points to limit.

Constituent: Sulfate Analysis Run 11/25/2020 7:45 PM View: Appendix III

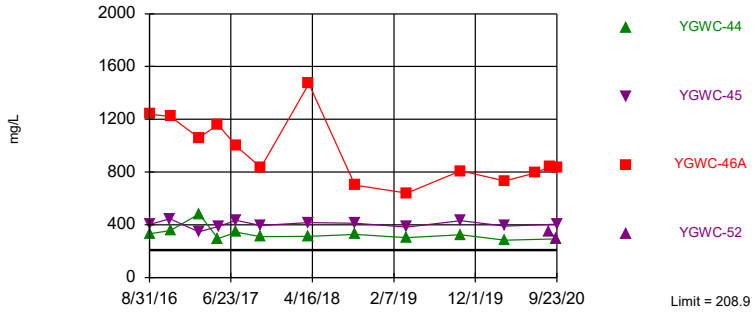
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Exceeds Limit: YGWC-44, YGWC-45, YGWC-46A, YGWC-52

Prediction Limit

Interwell Parametric



Background Data Summary (based on square root transformation): Mean=10.05, Std. Dev.=2.547, n=274, 0.7299% NDs. Normality test: Chi Squared @alpha = 0.01, calculated = 12.86, critical = 14.07. Kappa = 1.728 (c=7, w=4, 1 of 2, event alpha = 0.05132). N exceeds UG tables; Kappa based on n=150. Report alpha = 0.007498. Individual comparison alpha = 0.00188. Comparing 4 points to limit.

Constituent: Total Dissolved Solids Analysis Run 11/25/2020 7:45 PM View: Appendix III

Plant Yates Client: Southern Company Data: Yates Ash Pond1

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 11/25/2020 7:46 PM View: Appendix III

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-1I (bg)	YGWA-3I (bg)	YGWA-1D (bg)	YGWA-4I (bg)	YGWA-5D (bg)	YGWA-3D (bg)	YGWA-5I (bg)	YGWA-30I (bg)	YGWA-14S (bg)
6/1/2016	<0.1	<0.1	<0.1						
6/2/2016				<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
6/6/2016									
6/7/2016									
7/25/2016	<0.1	<0.1						<0.1	
7/26/2016			0.0055 (J)	0.0047 (J)	0.0052 (J)	0.0097 (J)	<0.1		0.0177 (J)
7/27/2016									
7/28/2016									
8/30/2016									
8/31/2016									
9/1/2016									
9/13/2016	<0.1		<0.1						
9/14/2016		<0.1		<0.1	0.0071 (J)		0.01 (J)		
9/15/2016						0.0102 (J)			0.0214 (J)
9/16/2016									
9/19/2016								<0.1	
11/1/2016		<0.1	0.0086 (J)			<0.1		<0.1	
11/2/2016				<0.1	<0.1				<0.1
11/3/2016									
11/4/2016	<0.1						<0.1		
11/14/2016									
11/15/2016									
11/16/2016									
11/28/2016									
12/15/2016									
1/10/2017									0.0198 (J)
1/11/2017		<0.1	0.0074 (J)			<0.1			
1/12/2017					0.0076 (J)		<0.1		
1/13/2017				<0.1					
1/16/2017	<0.1							<0.1	
2/21/2017								<0.1	
2/22/2017									
2/24/2017									
2/27/2017									
2/28/2017									
3/1/2017		<0.1							
3/2/2017	<0.1		0.008 (J)			0.0084 (J)			
3/3/2017									
3/6/2017				<0.1					
3/7/2017					0.0089 (J)		<0.1		
3/8/2017									0.0189 (J)
4/26/2017		<0.1				<0.1		<0.1	0.0161 (J)
4/27/2017	<0.1		0.0066 (J)						
4/28/2017									
5/1/2017				<0.1	0.0061 (J)				
5/2/2017							<0.1		
5/8/2017									
5/9/2017									
5/26/2017									
6/27/2017	0.006 (J)		0.0087 (J)		0.0079 (J)		<0.1		
6/28/2017		<0.1				<0.1			
6/29/2017				<0.1					

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 11/25/2020 7:46 PM View: Appendix III

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-1I (bg)	YGWA-3I (bg)	YGWA-1D (bg)	YGWA-4I (bg)	YGWA-5D (bg)	YGWA-3D (bg)	YGWA-5I (bg)	YGWA-30I (bg)	YGWA-14S (bg)
6/30/2017								<0.1	0.0173 (J)
7/11/2017									
7/13/2017									
7/17/2017									
10/3/2017	0.0071 (J)		0.0072 (J)		0.0094 (J)		<0.1		
10/4/2017		<0.1				<0.1		<0.1	
10/5/2017				<0.1					0.0173 (J)
10/10/2017									
10/11/2017									
10/12/2017									
10/16/2017									
11/20/2017									
1/10/2018									
1/11/2018									
2/19/2018									
2/20/2018									
4/2/2018									
4/3/2018									
4/4/2018									
6/5/2018			0.0052 (J)						
6/6/2018	<0.1				0.0098 (J)				
6/7/2018				0.0045 (J)		0.004 (J)	<0.1		
6/8/2018		<0.1							0.013 (J)
6/11/2018								0.014 (J)	
6/28/2018									
8/6/2018									
8/7/2018									
9/19/2018									
9/24/2018									
9/25/2018									
9/26/2018				0.005 (J)	0.01 (J)		0.0057 (J)		
10/1/2018	0.0049 (J)	<0.1	0.021 (J)			<0.1			0.015 (J)
10/2/2018								<0.1	
2/25/2019									
3/26/2019									
3/27/2019									
3/28/2019	<0.1		0.005 (J)						
3/29/2019									0.014 (J)
4/1/2019		<0.1				<0.1		<0.1	
4/2/2019									
4/3/2019				0.0055 (J)	0.0076 (J)		0.0044 (J)		
6/12/2019									
9/24/2019	0.0055 (J)		0.0064 (J)		0.01 (J)		0.0049 (J)		
9/25/2019		<0.1		<0.1		0.0054 (J)		<0.1	0.018 (J)
9/26/2019									
10/8/2019									
10/9/2019									
3/17/2020									
3/18/2020	0.0087 (J)								0.02 (J)
3/19/2020		0.0053 (J)	0.0085 (J)			0.0073 (J)		0.0052 (J)	
3/24/2020					0.011 (J)		0.0068 (J)		
3/25/2020				0.011 (J)					

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 11/25/2020 7:46 PM View: Appendix III

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-1I (bg)	YGWA-3I (bg)	YGWA-1D (bg)	YGWA-4I (bg)	YGWA-5D (bg)	YGWA-3D (bg)	YGWA-5I (bg)	YGWA-30I (bg)	YGWA-14S (bg)
7/6/2020									
8/27/2020									
8/28/2020									
9/22/2020				<0.1	0.0079 (J)		0.0053 (J)		
9/23/2020	<0.1	0.0073 (J)	<0.1			0.012 (J)			
9/24/2020								0.0075 (J)	
9/25/2020									0.02 (J)

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 11/25/2020 7:46 PM View: Appendix III

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-18I (bg)	YGWA-18S (bg)	YGWA-17S (bg)	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-47 (bg)	YGWC-44	GWA-2 (bg)	YGWC-45
6/1/2016									
6/2/2016									
6/6/2016	<0.1	<0.1							
6/7/2016			<0.1	<0.1	<0.1				
7/25/2016									
7/26/2016									
7/27/2016	<0.1	0.0059 (J)	0.008 (J)	<0.1					
7/28/2016					<0.1				
8/30/2016						0.0166 (J)			
8/31/2016							0.541	0.0315 (J)	0.308
9/1/2016									
9/13/2016									
9/14/2016									
9/15/2016									
9/16/2016		0.0079 (J)	0.0086 (J)						
9/19/2016	<0.1			<0.1	<0.1				
11/1/2016									
11/2/2016				<0.1					
11/3/2016	<0.1	0.0082 (J)	0.0077 (J)		<0.1				
11/4/2016									
11/14/2016						0.0166 (J)			0.368
11/15/2016							0.706		
11/16/2016									
11/28/2016								0.0095 (J)	
12/15/2016									
1/10/2017									
1/11/2017	<0.1	0.0096 (J)	0.0092 (J)						
1/12/2017									
1/13/2017				<0.1	<0.1				
1/16/2017									
2/21/2017									
2/22/2017								<0.1	
2/24/2017						0.0145 (J)			
2/27/2017									0.321
2/28/2017							0.623		
3/1/2017	<0.1	<0.1							
3/2/2017			0.0095 (J)						
3/3/2017									
3/6/2017				<0.1	<0.1				
3/7/2017									
3/8/2017									
4/26/2017	<0.1	0.0091 (J)		<0.1	<0.1				
4/27/2017									
4/28/2017									
5/1/2017									
5/2/2017			<0.1						
5/8/2017						0.0141 (J)	0.69	0.0084 (J)	
5/9/2017									0.338
5/26/2017									
6/27/2017									
6/28/2017	<0.1	0.0079 (J)							
6/29/2017			0.0074 (J)	<0.1	<0.1				

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 11/25/2020 7:46 PM View: Appendix III

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-18I (bg)	YGWA-18S (bg)	YGWA-17S (bg)	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-47 (bg)	YGWC-44	GWA-2 (bg)	YGWC-45
6/30/2017									
7/11/2017						0.0131 (J)			
7/13/2017							0.649		0.34
7/17/2017								0.0092 (J)	
10/3/2017					<0.1				
10/4/2017		0.009 (J)	0.0077 (J)	<0.1					
10/5/2017	<0.1								
10/10/2017						0.0124 (J)	0.603		0.319
10/11/2017									
10/12/2017									
10/16/2017								<0.1	
11/20/2017									
1/10/2018									
1/11/2018									
2/19/2018								<0.1	
2/20/2018									
4/2/2018						0.013 (J)			
4/3/2018									0.35
4/4/2018							0.66		
6/5/2018					0.0092 (J)				
6/6/2018				0.0049 (J)					
6/7/2018	<0.1								
6/8/2018									
6/11/2018		0.0093 (J)	0.01 (J)						
6/28/2018									
8/6/2018								<0.1	
8/7/2018									
9/19/2018						0.012 (J)	0.66		0.35
9/24/2018									
9/25/2018	0.0046 (J)	0.007 (J)	0.0096 (J)	<0.1	0.0054 (J)				
9/26/2018									
10/1/2018									
10/2/2018									
2/25/2019								<0.1	
3/26/2019									
3/27/2019						0.013 (J)	0.57		0.33
3/28/2019									
3/29/2019									
4/1/2019									
4/2/2019			0.0066 (J)		0.011 (J)				
4/3/2019	<0.1	0.0053 (J)		<0.1					
6/12/2019								<0.1	
9/24/2019					0.018 (J)				
9/25/2019			0.0081 (J)	<0.1					
9/26/2019	0.0062 (J)	0.0072 (J)							
10/8/2019						0.012 (J)	0.58	<0.1	
10/9/2019									0.35
3/17/2020						0.023 (J)	0.61	0.0051 (J)	0.37
3/18/2020									
3/19/2020									
3/24/2020	0.0054 (J)	0.01 (J)	0.0092 (J)	<0.1	0.016 (J)				
3/25/2020									

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 11/25/2020 7:46 PM View: Appendix III

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-18I (bg)	YGWA-18S (bg)	YGWA-17S (bg)	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-47 (bg)	YGWC-44	GWA-2 (bg)	YGWC-45
7/6/2020									
8/27/2020									
8/28/2020									
9/22/2020						0.0076 (J)	0.59	0.0079 (J)	
9/23/2020	0.021 (J)	0.006 (J)	0.0066 (J)						0.32
9/24/2020				0.0094 (J)	0.013 (J)				
9/25/2020									

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 11/25/2020 7:46 PM View: Appendix III

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWC-46A	YGWA-2I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWC-52
6/1/2016					
6/2/2016					
6/6/2016					
6/7/2016					
7/25/2016					
7/26/2016					
7/27/2016					
7/28/2016					
8/30/2016					
8/31/2016					
9/1/2016	2.12				
9/13/2016					
9/14/2016		<0.1			
9/15/2016					
9/16/2016					
9/19/2016					
11/1/2016					
11/2/2016					
11/3/2016					
11/4/2016		<0.1			
11/14/2016					
11/15/2016					
11/16/2016	2.03				
11/28/2016					
12/15/2016		0.0107 (J)			
1/10/2017					
1/11/2017					
1/12/2017					
1/13/2017					
1/16/2017		<0.1			
2/21/2017					
2/22/2017					
2/24/2017					
2/27/2017	1.29				
2/28/2017					
3/1/2017					
3/2/2017					
3/3/2017		<0.1			
3/6/2017					
3/7/2017					
3/8/2017					
4/26/2017					
4/27/2017					
4/28/2017		<0.1			
5/1/2017					
5/2/2017					
5/8/2017	1.71				
5/9/2017					
5/26/2017		<0.1			
6/27/2017					
6/28/2017		<0.1			
6/29/2017					

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 11/25/2020 7:46 PM View: Appendix III

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWC-46A	YGWA-2I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWC-52
6/30/2017					
7/11/2017					
7/13/2017	1.62				
7/17/2017					
10/3/2017		<0.1			
10/4/2017					
10/5/2017					
10/10/2017					
10/11/2017	1.17		0.0135 (J)		
10/12/2017				0.0401	
10/16/2017					
11/20/2017			0.0251 (J)	0.156	
1/10/2018				0.15	
1/11/2018			0.0255 (J)		
2/19/2018				0.146	
2/20/2018			<0.1		
4/2/2018					
4/3/2018			0.033 (J)	0.12	
4/4/2018	1.2				
6/5/2018					
6/6/2018					
6/7/2018		<0.1			
6/8/2018					
6/11/2018					
6/28/2018			0.053	0.16	
8/6/2018					
8/7/2018			0.024 (J)	0.12	
9/19/2018	1.2				
9/24/2018			0.028 (J)	0.099	
9/25/2018					
9/26/2018					
10/1/2018		<0.1			
10/2/2018					
2/25/2019					
3/26/2019				0.096	
3/27/2019	0.89		0.017 (J)		
3/28/2019					
3/29/2019		0.0065 (J)			
4/1/2019					
4/2/2019					
4/3/2019					
6/12/2019					
9/24/2019		0.0076 (J)			
9/25/2019					
9/26/2019					
10/8/2019					
10/9/2019	1.1		0.017 (J)	0.079	
3/17/2020	1.3				
3/18/2020					
3/19/2020		0.0073 (J)			
3/24/2020				0.088 (J)	
3/25/2020			0.043 (J)		

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 11/25/2020 7:46 PM View: Appendix III

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWC-46A	YGWA-2I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWC-52
7/6/2020	2				
8/27/2020					0.014 (J)
8/28/2020	1.8				
9/22/2020					<0.1
9/23/2020	2	<0.1			
9/24/2020			0.037 (J)	0.087 (J)	
9/25/2020					

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 11/25/2020 7:46 PM View: Appendix III

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-1I (bg)	YGWA-3I (bg)	YGWA-1D (bg)	YGWA-4I (bg)	YGWA-5D (bg)	YGWA-3D (bg)	YGWA-5I (bg)	YGWA-30I (bg)	YGWA-14S (bg)
6/1/2016	2.5	21	12						
6/2/2016				8.8	33	28	2.4	1.3	1.3
6/6/2016									
6/7/2016									
7/25/2016	2.16	20.3						1.17	
7/26/2016			11	7.69	32.3	24.5	2.12		1.24
7/27/2016									
7/28/2016									
8/30/2016									
8/31/2016									
9/1/2016									
9/13/2016	2.21		11.8						
9/14/2016		19.7		8.49	31		2.18		
9/15/2016						27			1.17
9/16/2016									
9/19/2016								1.05	
11/1/2016		18.4	11			25.6		1.14	
11/2/2016				7.83	30.9				1.23
11/3/2016									
11/4/2016	2.67						2.17 (J)		
11/14/2016									
11/15/2016									
11/16/2016									
11/28/2016									
12/15/2016									
1/10/2017									1.24
1/11/2017		20.3	11.2			27.5			
1/12/2017					35.7		2.37		
1/13/2017				8.08					
1/16/2017	2.45							1.23	
2/21/2017								1.25	
2/22/2017									
2/24/2017									
2/27/2017									
2/28/2017									
3/1/2017		18.6							
3/2/2017	2.57		11			27.5			
3/3/2017									
3/6/2017				8.64					
3/7/2017					32.7		2.34		
3/8/2017									1.21
4/26/2017		25.6				30.4		1.03	1.14
4/27/2017	2.38		11.1						
4/28/2017									
5/1/2017				13.4	37				
5/2/2017							2.17		
5/8/2017									
5/9/2017									
5/26/2017									
6/27/2017	2.36		13.8		36.5		2.13		
6/28/2017		23.9				29.8			
6/29/2017				8.81					

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 11/25/2020 7:46 PM View: Appendix III

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-1I (bg)	YGWA-3I (bg)	YGWA-1D (bg)	YGWA-4I (bg)	YGWA-5D (bg)	YGWA-3D (bg)	YGWA-5I (bg)	YGWA-30I (bg)	YGWA-14S (bg)
6/30/2017								1.13	1.24
7/11/2017									
7/13/2017									
7/17/2017									
10/3/2017	2.21		14		30.9		2.15		
10/4/2017		22.1				29.7		1.09	
10/5/2017				9.29					1.11
10/10/2017									
10/11/2017									
10/12/2017									
10/16/2017									
11/20/2017									
1/10/2018									
1/11/2018									
2/19/2018									
2/20/2018									
4/2/2018									
4/3/2018									
4/4/2018									
6/5/2018			15.2 (J)						
6/6/2018	2.3				26.2				
6/7/2018				8.2		29.1	2.3		
6/8/2018		21.9 (J)							1.1
6/11/2018								1.1	
6/28/2018									
8/6/2018									
8/7/2018									
9/19/2018									
9/24/2018									
9/25/2018									
9/26/2018				9.5 (J)	25.8		2.3		
10/1/2018	1.8	19.7	15.1			26.9			0.99
10/2/2018								1.1	
2/25/2019									
3/26/2019									
3/27/2019									
3/28/2019	2.2		13.3 (J)						
3/29/2019									1.1
4/1/2019		20.4 (J)				30.1		1.3	
4/2/2019									
4/3/2019				8.4	24.7 (J)		2.8		
6/12/2019									
9/24/2019	2.3		15.8		25.8		2.5		
9/25/2019		22.4		9.5		29.5		1.1	1.1
9/26/2019									
10/8/2019									
10/9/2019									
3/17/2020									
3/18/2020	2.1								1.1
3/19/2020		21.9	15			31.5		1.2	
3/24/2020					26.1		2.5		
3/25/2020				10.5					

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 11/25/2020 7:46 PM View: Appendix III

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-1I (bg)	YGWA-3I (bg)	YGWA-1D (bg)	YGWA-4I (bg)	YGWA-5D (bg)	YGWA-3D (bg)	YGWA-5I (bg)	YGWA-30I (bg)	YGWA-14S (bg)
7/6/2020									
8/27/2020									
8/28/2020									
9/22/2020				9.6	27.2		2.6		
9/23/2020	1.8	23.6	14.1			28.6			
9/24/2020								1.1	
9/25/2020									1.3

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 11/25/2020 7:46 PM View: Appendix III

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-18I (bg)	YGWA-18S (bg)	YGWA-17S (bg)	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-47 (bg)	YGWC-44	GWA-2 (bg)	YGWC-45
6/1/2016									
6/2/2016									
6/6/2016	6.2	1.4							
6/7/2016			2.2	2.3	3.7				
7/25/2016									
7/26/2016									
7/27/2016	4.73	1.19	2	2.08					
7/28/2016					3.15				
8/30/2016						20.9			
8/31/2016							27.3	9.31	46.7
9/1/2016									
9/13/2016									
9/14/2016									
9/15/2016									
9/16/2016		1.5	1.97						
9/19/2016	4.76			1.97	3.17				
11/1/2016									
11/2/2016				2.13					
11/3/2016	5.25	1.31	1.99		3.4				
11/4/2016									
11/14/2016						18.6			50.6
11/15/2016							27.8		
11/16/2016									
11/28/2016								9.47 (B)	
12/15/2016									
1/10/2017									
1/11/2017	4.74	1.25	2.28						
1/12/2017									
1/13/2017				2.45	4.98				
1/16/2017									
2/21/2017									
2/22/2017								10.4	
2/24/2017						16.1			
2/27/2017									49.4
2/28/2017							26.4		
3/1/2017	5.37	1.26							
3/2/2017			2.15						
3/3/2017									
3/6/2017				2.48	6.28				
3/7/2017									
3/8/2017									
4/26/2017	4.28	1.05		2.3	6.65				
4/27/2017									
4/28/2017									
5/1/2017									
5/2/2017			1.95						
5/8/2017						14.6	29.9	14.2	
5/9/2017									56
5/26/2017									
6/27/2017									
6/28/2017	4.95	1.06							
6/29/2017			2.02	2.54	6.04				

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 11/25/2020 7:46 PM View: Appendix III

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-18I (bg)	YGWA-18S (bg)	YGWA-17S (bg)	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-47 (bg)	YGWC-44	GWA-2 (bg)	YGWC-45
6/30/2017									
7/11/2017						14.3			
7/13/2017							30.2		54.8
7/17/2017								14.1	
10/3/2017					8.28				
10/4/2017		1.1	2.03	2.25					
10/5/2017	5.28								
10/10/2017						12.1	27.2		52.8
10/11/2017									
10/12/2017									
10/16/2017								13.6	
11/20/2017									
1/10/2018									
1/11/2018									
2/19/2018								<25	
2/20/2018									
4/2/2018						<25			
4/3/2018									50.6
4/4/2018							30.1		
6/5/2018					9.1				
6/6/2018				2.3					
6/7/2018	4.8								
6/8/2018									
6/11/2018		1.4	2.1						
6/28/2018									
8/6/2018								11.4 (J)	
8/7/2018									
9/19/2018						11.1 (J)	29.2		50.5
9/24/2018									
9/25/2018	4.6	1	2.1	2.3	10.4 (J)				
9/26/2018									
10/1/2018									
10/2/2018									
2/25/2019								12.7 (J)	
3/26/2019									
3/27/2019						10.8 (J)	27.9		48.8
3/28/2019									
3/29/2019									
4/1/2019									
4/2/2019			2.5		8.8				
4/3/2019	5.3	1.2		2.9					
6/12/2019								18.9	
9/24/2019					7.7				
9/25/2019			2.6	2.4					
9/26/2019	4.9	1.1							
10/8/2019						9.7	28.1	28.3	
10/9/2019									47.9
3/17/2020						14.8	31.9	24.3	54.8
3/18/2020									
3/19/2020									
3/24/2020	5.3	1	2.7	2.6	6				
3/25/2020									

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 11/25/2020 7:46 PM View: Appendix III

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-18I (bg)	YGWA-18S (bg)	YGWA-17S (bg)	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-47 (bg)	YGWC-44	GWA-2 (bg)	YGWC-45
7/6/2020									
8/27/2020									
8/28/2020									
9/22/2020						10.1	30.4	31	
9/23/2020	5.2	0.91 (J)	2.6						50
9/24/2020				2.6	7.8				
9/25/2020									

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 11/25/2020 7:46 PM View: Appendix III

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWC-46A	YGWA-2I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWC-52
6/1/2016					
6/2/2016					
6/6/2016					
6/7/2016					
7/25/2016					
7/26/2016					
7/27/2016					
7/28/2016					
8/30/2016					
8/31/2016					
9/1/2016	96.8				
9/13/2016					
9/14/2016		23.5			
9/15/2016					
9/16/2016					
9/19/2016					
11/1/2016					
11/2/2016					
11/3/2016					
11/4/2016		23.7			
11/14/2016					
11/15/2016					
11/16/2016	107				
11/28/2016					
12/15/2016		23.1			
1/10/2017					
1/11/2017					
1/12/2017					
1/13/2017					
1/16/2017		23.3			
2/21/2017					
2/22/2017					
2/24/2017					
2/27/2017	104				
2/28/2017					
3/1/2017					
3/2/2017					
3/3/2017		25.1			
3/6/2017					
3/7/2017					
3/8/2017					
4/26/2017					
4/27/2017					
4/28/2017		30.7			
5/1/2017					
5/2/2017					
5/8/2017	103				
5/9/2017					
5/26/2017		26.2			
6/27/2017					
6/28/2017		26.1			
6/29/2017					

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 11/25/2020 7:46 PM View: Appendix III

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWC-46A	YGWA-2I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWC-52
6/30/2017					
7/11/2017					
7/13/2017	83.7				
7/17/2017					
10/3/2017		26.7			
10/4/2017					
10/5/2017					
10/10/2017					
10/11/2017	69		2.74		
10/12/2017				2.9	
10/16/2017					
11/20/2017			1.81	10.4	
1/10/2018				10.2	
1/11/2018			1.54		
2/19/2018				<25	
2/20/2018			1.71		
4/2/2018					
4/3/2018			1.4	6.3	
4/4/2018	51.9				
6/5/2018					
6/6/2018					
6/7/2018		25			
6/8/2018					
6/11/2018					
6/28/2018			1.4	6.7	
8/6/2018					
8/7/2018			1.2	6.3	
9/19/2018	51.9				
9/24/2018			1.1	5.7	
9/25/2018					
9/26/2018					
10/1/2018		25			
10/2/2018					
2/25/2019					
3/26/2019				5.6	
3/27/2019	54.2		1.5		
3/28/2019					
3/29/2019		23.5 (J)			
4/1/2019					
4/2/2019					
4/3/2019					
6/12/2019					
9/24/2019		26.4			
9/25/2019					
9/26/2019					
10/8/2019					
10/9/2019	64.2		2.4	4.9	
3/17/2020	70.4				
3/18/2020					
3/19/2020		27.4			
3/24/2020				4.8	
3/25/2020			2.7		

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 11/25/2020 7:46 PM View: Appendix III

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWC-46A	YGWA-2I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWC-52
7/6/2020	105				
8/27/2020					52.3
8/28/2020	102				
9/22/2020					53.5
9/23/2020	104	26.3			
9/24/2020			3.7	4.4	
9/25/2020					

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 11/25/2020 7:46 PM View: Appendix III

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-1I (bg)	YGWA-3I (bg)	YGWA-1D (bg)	YGWA-4I (bg)	YGWA-5D (bg)	YGWA-3D (bg)	YGWA-5I (bg)	YGWA-30I (bg)	YGWA-14S (bg)
6/1/2016	1.6	1.3	1.3						
6/2/2016				3.7	7.2	1.4	4.3	1.9	4.1
6/6/2016									
6/7/2016									
7/25/2016	1.4	1.3						1.7	
7/26/2016			1.2	3.6	6.6	1.6	4.4		4
7/27/2016									
7/28/2016									
8/30/2016									
8/31/2016									
9/1/2016									
9/13/2016	1.3		1.1						
9/14/2016		1.3		3.4	6.6		3.8		
9/15/2016						1.5			4.2
9/16/2016									
9/19/2016								1.6	
11/1/2016		1.4	1.3			1.7		1.8	
11/2/2016				4.5	7.6				4.9
11/3/2016									
11/4/2016	1.6						4.8		
11/14/2016									
11/15/2016									
11/16/2016									
11/28/2016									
12/15/2016									
1/10/2017									4.1
1/11/2017		1.1	1.1			1.2			
1/12/2017					6.8		3.8		
1/13/2017				4.2					
1/16/2017	1.4							1.7	
2/21/2017								1.7	
2/22/2017									
2/24/2017									
2/27/2017									
2/28/2017									
3/1/2017		1.1							
3/2/2017	1.3		1			1.2			
3/3/2017									
3/6/2017				3.6					
3/7/2017					6.8		4.5		
3/8/2017									4.2
4/26/2017		1.1				1.2		1.7	4.1
4/27/2017	1.3		1						
4/28/2017									
5/1/2017				4.3	7.2				
5/2/2017							4.6		
5/8/2017									
5/9/2017									
5/26/2017									
6/27/2017	1.4		1.1		7		4.3		
6/28/2017		1.2				1.3			
6/29/2017				4.2					

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 11/25/2020 7:46 PM View: Appendix III

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-1I (bg)	YGWA-3I (bg)	YGWA-1D (bg)	YGWA-4I (bg)	YGWA-5D (bg)	YGWA-3D (bg)	YGWA-5I (bg)	YGWA-30I (bg)	YGWA-14S (bg)
6/30/2017								1.8	3.7
7/11/2017									
7/13/2017									
7/17/2017									
10/3/2017	1.7		1.1		6.5		4.2		
10/4/2017		1.2				1.5		1.8	
10/5/2017				4.7					3.8
10/10/2017									
10/11/2017									
10/12/2017									
10/16/2017									
11/20/2017									
1/10/2018									
1/11/2018									
2/19/2018									
2/20/2018									
4/2/2018									
4/3/2018									
4/4/2018									
6/5/2018			1.1						
6/6/2018	1.4				4.7				
6/7/2018				4.4		1.2	4.5		
6/8/2018		1.2							3.4
6/11/2018								2	
6/28/2018									
8/6/2018									
8/7/2018									
9/19/2018									
9/24/2018									
9/25/2018									
9/26/2018				4.8	4.8		5.1		
10/1/2018	1.4	1.2	1.1			1.5			3.8
10/2/2018								1.8	
2/25/2019									
3/26/2019									
3/27/2019									
3/28/2019	1.5		1.4						
3/29/2019									4.2
4/1/2019		1.1				1.2		1.7	
4/2/2019									
4/3/2019				4.3	4		4.2		
6/12/2019									
9/24/2019	1.3		1.1		3.7		4.5		
9/25/2019		1.1		4.5		1.1		1.6	4.8
9/26/2019									
10/8/2019									
10/9/2019									
3/17/2020									
3/18/2020	1.4								5.2
3/19/2020		1.1	1.1			1.2		1.8	
3/24/2020					3.5		4.3		
3/25/2020				3.9					

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 11/25/2020 7:46 PM View: Appendix III

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-1I (bg)	YGWA-3I (bg)	YGWA-1D (bg)	YGWA-4I (bg)	YGWA-5D (bg)	YGWA-3D (bg)	YGWA-5I (bg)	YGWA-30I (bg)	YGWA-14S (bg)
7/6/2020									
8/27/2020									
8/28/2020									
9/22/2020				4.5	3.6		4.2		
9/23/2020	1.2	1	0.99 (J)			1.1			
9/24/2020								1.5	
9/25/2020									5.3

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 11/25/2020 7:46 PM View: Appendix III

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-18I (bg)	YGWA-18S (bg)	YGWA-17S (bg)	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-47 (bg)	YGWC-44	GWA-2 (bg)	YGWC-45
6/1/2016									
6/2/2016									
6/6/2016	6.8	6.4							
6/7/2016			4.5	1.9	2.8				
7/25/2016									
7/26/2016									
7/27/2016	6.7	6.2	4.5	1.9					
7/28/2016					2.6				
8/30/2016						5.2			
8/31/2016							13	4	5.8
9/1/2016									
9/13/2016									
9/14/2016									
9/15/2016									
9/16/2016		6.1	4.5						
9/19/2016	7			1.9	2.4				
11/1/2016									
11/2/2016				2.6					
11/3/2016	7.5	7.4	5.4		2.9				
11/4/2016									
11/14/2016						6.4			5.8
11/15/2016							14		
11/16/2016									
11/28/2016								4.2	
12/15/2016									
1/10/2017									
1/11/2017	6.5	6.1	4.7						
1/12/2017									
1/13/2017				2.3	2.5				
1/16/2017									
2/21/2017									
2/22/2017								3.7	
2/24/2017						5.5			
2/27/2017									5
2/28/2017							12		
3/1/2017	6.9	6							
3/2/2017			4.8						
3/3/2017									
3/6/2017				1.9	2.1				
3/7/2017									
3/8/2017									
4/26/2017	7	6.5		2	2.1				
4/27/2017									
4/28/2017									
5/1/2017									
5/2/2017			4.6						
5/8/2017						5.8	13	4.2	
5/9/2017									4.6
5/26/2017									
6/27/2017									
6/28/2017	7	6.4							
6/29/2017			4.5	2.6	2.8				

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 11/25/2020 7:46 PM View: Appendix III

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-18I (bg)	YGWA-18S (bg)	YGWA-17S (bg)	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-47 (bg)	YGWC-44	GWA-2 (bg)	YGWC-45
6/30/2017									
7/11/2017						5.8			
7/13/2017							13		4.7
7/17/2017								3.8	
10/3/2017					2.2				
10/4/2017		6.8	4.7	2.6					
10/5/2017	7								
10/10/2017						5.9	14		4.5
10/11/2017									
10/12/2017									
10/16/2017								4.2	
11/20/2017									
1/10/2018									
1/11/2018									
2/19/2018								4.3	
2/20/2018									
4/2/2018						4.8			
4/3/2018									4.6
4/4/2018							13.4		
6/5/2018					1.7				
6/6/2018				2.7					
6/7/2018	6.8								
6/8/2018									
6/11/2018		6.8	4.9						
6/28/2018									
8/6/2018								3.8	
8/7/2018									
9/19/2018						4	14.2		4.7
9/24/2018									
9/25/2018	7.9	7.8	5.6	3.6	2.2				
9/26/2018									
10/1/2018									
10/2/2018									
2/25/2019								4.1	
3/26/2019									
3/27/2019						4.3	14		4.6
3/28/2019									
3/29/2019									
4/1/2019									
4/2/2019			4.8		2.5				
4/3/2019	6.9	6.3		3.1					
6/12/2019								4.7	
9/24/2019					3.1				
9/25/2019			5.7	2.8					
9/26/2019	7	7.1							
10/8/2019						4.4	14.8	5.1	
10/9/2019									5.1
3/17/2020						4.1	14	4.8	4.6
3/18/2020									
3/19/2020									
3/24/2020	7	6.8	5	2.7	2.8				
3/25/2020									

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 11/25/2020 7:46 PM View: Appendix III

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-18I (bg)	YGWA-18S (bg)	YGWA-17S (bg)	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-47 (bg)	YGWC-44	GWA-2 (bg)	YGWC-45
7/6/2020									
8/27/2020									
8/28/2020									
9/22/2020						4.2	14.4	4.2	
9/23/2020	7.2	7.2	6.6						4.9
9/24/2020				2.7	2				
9/25/2020									

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 11/25/2020 7:46 PM View: Appendix III

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWC-46A	YGWA-2I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWC-52
6/1/2016					
6/2/2016					
6/6/2016					
6/7/2016					
7/25/2016					
7/26/2016					
7/27/2016					
7/28/2016					
8/30/2016					
8/31/2016					
9/1/2016	37				
9/13/2016					
9/14/2016		1.1			
9/15/2016					
9/16/2016					
9/19/2016					
11/1/2016					
11/2/2016					
11/3/2016					
11/4/2016		1.4			
11/14/2016					
11/15/2016					
11/16/2016	37				
11/28/2016					
12/15/2016		2.9			
1/10/2017					
1/11/2017					
1/12/2017					
1/13/2017					
1/16/2017		0.98			
2/21/2017					
2/22/2017					
2/24/2017					
2/27/2017	33				
2/28/2017					
3/1/2017					
3/2/2017					
3/3/2017		1.1			
3/6/2017					
3/7/2017					
3/8/2017					
4/26/2017					
4/27/2017					
4/28/2017		0.91			
5/1/2017					
5/2/2017					
5/8/2017	33				
5/9/2017					
5/26/2017		0.93			
6/27/2017					
6/28/2017		1			
6/29/2017					

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 11/25/2020 7:46 PM View: Appendix III

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWC-46A	YGWA-2I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWC-52
6/30/2017					
7/11/2017					
7/13/2017	32				
7/17/2017					
10/3/2017		1.2			
10/4/2017					
10/5/2017					
10/10/2017					
10/11/2017	29		2.4		
10/12/2017				3.8	
10/16/2017					
11/20/2017			1.8	4.4	
1/10/2018				4.6	
1/11/2018			1.6		
2/19/2018				4.6	
2/20/2018			2		
4/2/2018					
4/3/2018			3.3	5.9	
4/4/2018	26.6				
6/5/2018					
6/6/2018					
6/7/2018		1			
6/8/2018					
6/11/2018					
6/28/2018			2.1	5	
8/6/2018					
8/7/2018			1.2	4.3	
9/19/2018	26.5				
9/24/2018			1.3	4.9	
9/25/2018					
9/26/2018					
10/1/2018		1.1			
10/2/2018					
2/25/2019					
3/26/2019				4.4	
3/27/2019	20.9		1.4		
3/28/2019					
3/29/2019		1.2			
4/1/2019					
4/2/2019					
4/3/2019					
6/12/2019					
9/24/2019		0.95 (J)			
9/25/2019					
9/26/2019					
10/8/2019					
10/9/2019	25		2.1	5.1	
3/17/2020	24.8				
3/18/2020					
3/19/2020		0.97 (J)			
3/24/2020				4.7	
3/25/2020			1.9		

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 11/25/2020 7:46 PM View: Appendix III

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWC-46A	YGWA-2I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWC-52
7/6/2020	25.8				
8/27/2020					3.9
8/28/2020	25.9				
9/22/2020					4.1
9/23/2020	28.1	0.88 (J)			
9/24/2020			2.7	5	
9/25/2020					

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 11/25/2020 7:46 PM View: Appendix III

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-1I (bg)	YGWA-3I (bg)	YGWA-1D (bg)	YGWA-4I (bg)	YGWA-3D (bg)	YGWA-5D (bg)	YGWA-5I (bg)	YGWA-14S (bg)	YGWA-30I (bg)
6/1/2016	<0.1	0.15 (J)	0.12 (J)						
6/2/2016				<0.1	0.62	0.11 (J)	<0.1	<0.1	<0.1
6/6/2016									
6/7/2016									
7/25/2016	0.06 (J)	0.14 (J)							0.06 (J)
7/26/2016			0.08 (J)	<0.1	0.49	0.05 (J)	<0.1	0.02 (J)	
7/27/2016									
7/28/2016									
8/30/2016									
8/31/2016									
9/1/2016									
9/13/2016	<0.1		0.11 (J)						
9/14/2016		0.18 (J)		<0.1		0.04 (J)	<0.1		
9/15/2016					0.54			<0.1	
9/16/2016									
9/19/2016									<0.1
11/1/2016		<0.1	<0.1		0.68				<0.1
11/2/2016				<0.1		<0.1		<0.1	
11/3/2016									
11/4/2016	<0.1						<0.1		
11/14/2016									
11/15/2016									
11/16/2016									
11/28/2016									
12/15/2016									
1/10/2017								<0.1	
1/11/2017		0.09 (J)	0.05 (J)		0.49				
1/12/2017						0.04 (J)	<0.1		
1/13/2017				<0.1					
1/16/2017	<0.1								<0.1
2/21/2017									<0.1
2/22/2017									
2/24/2017									
2/27/2017									
2/28/2017									
3/1/2017		<0.1							
3/2/2017	<0.1		<0.1		0.48				
3/3/2017									
3/6/2017				<0.1					
3/7/2017						<0.1	<0.1		
3/8/2017								<0.1	
4/26/2017		0.08 (J)			0.48			<0.1	<0.1
4/27/2017	0.01 (J)		0.04 (J)						
4/28/2017									
5/1/2017				<0.1		<0.1			
5/2/2017							<0.1		
5/8/2017									
5/9/2017									
5/26/2017									
6/27/2017	<0.1		<0.1			<0.1	<0.1		
6/28/2017		0.12 (J)			0.47				
6/29/2017				<0.1					

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 11/25/2020 7:46 PM View: Appendix III

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-1I (bg)	YGWA-3I (bg)	YGWA-1D (bg)	YGWA-4I (bg)	YGWA-3D (bg)	YGWA-5D (bg)	YGWA-5I (bg)	YGWA-14S (bg)	YGWA-30I (bg)
6/30/2017								<0.1	<0.1
7/11/2017									
7/13/2017									
7/17/2017									
10/3/2017	<0.1		<0.1			<0.1	<0.1		
10/4/2017		<0.1			<0.1				<0.1
10/5/2017				<0.1				<0.1	
10/10/2017									
10/11/2017									
10/12/2017									
10/16/2017									
11/20/2017									
1/10/2018									
1/11/2018									
2/19/2018									
2/20/2018									
3/27/2018	<0.1							<0.1	<0.1
3/28/2018		<0.1			0.56				
3/29/2018			<0.1	<0.1		<0.1	<0.1		
4/2/2018									
4/3/2018									
4/4/2018									
6/5/2018			0.055 (J)						
6/6/2018	<0.1					0.15 (J)			
6/7/2018				<0.1	0.48		<0.1		
6/8/2018		0.2 (J)						<0.1	
6/11/2018									<0.1
6/28/2018									
8/6/2018									
8/7/2018									
9/19/2018									
9/24/2018									
9/25/2018									
9/26/2018				<0.1		<0.1	<0.1		
10/1/2018	<0.1	<0.1	<0.1		0.44			<0.1	
10/2/2018									<0.1
2/25/2019									
2/26/2019								<0.1	<0.1
2/27/2019	<0.1	0.13 (J)	0.052 (J)		0.53				
3/4/2019				<0.1		0.19 (J)	<0.1		
3/5/2019									
3/6/2019									
3/26/2019									
3/27/2019									
3/28/2019	<0.1		0.036 (J)						
3/29/2019								<0.1	
4/1/2019		0.1 (J)			0.45				<0.1
4/2/2019									
4/3/2019				<0.1		0.047 (J)	<0.1		
6/12/2019									
8/19/2019									
8/20/2019									

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 11/25/2020 7:46 PM View: Appendix III

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-1I (bg)	YGWA-3I (bg)	YGWA-1D (bg)	YGWA-4I (bg)	YGWA-3D (bg)	YGWA-5D (bg)	YGWA-5I (bg)	YGWA-14S (bg)	YGWA-30I (bg)
8/21/2019									
9/24/2019	<0.1		0.063 (J)			0.05 (J)	<0.1		
9/25/2019		0.1 (J)		<0.1	0.46			<0.1	<0.1
9/26/2019									
10/8/2019									
10/9/2019									
2/10/2020	<0.1		0.061 (J)						
2/11/2020		0.094 (J)							
2/12/2020				<0.1	0.4	<0.1	<0.1	<0.1	<0.1
3/17/2020									
3/18/2020	<0.1							<0.1	
3/19/2020		0.11 (J)	0.064 (J)		0.51				<0.1
3/24/2020						<0.1	<0.1		
3/25/2020				<0.1					
7/6/2020									
8/26/2020									
8/27/2020									
8/28/2020									
9/22/2020				<0.1		0.056 (J)	<0.1		
9/23/2020	<0.1	0.098 (J)	0.058 (J)		0.47				
9/24/2020									<0.1
9/25/2020								<0.1	

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 11/25/2020 7:46 PM View: Appendix III

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-18I (bg)	YGWA-18S (bg)	YGWA-21I (bg)	YGWA-17S (bg)	YGWA-20S (bg)	YGWA-47 (bg)	YGWC-44	YGWC-45	GWA-2 (bg)
6/1/2016									
6/2/2016									
6/6/2016	<0.1	<0.1							
6/7/2016			<0.1	<0.1	<0.1				
7/25/2016									
7/26/2016									
7/27/2016	<0.1	<0.1		<0.1	<0.1				
7/28/2016			0.02 (J)						
8/30/2016						0.09 (J)			
8/31/2016							<0.1	0.11 (J)	0.14 (J)
9/1/2016									
9/13/2016									
9/14/2016									
9/15/2016									
9/16/2016		<0.1		<0.1					
9/19/2016	<0.1		0.02 (J)		<0.1				
11/1/2016									
11/2/2016					<0.1				
11/3/2016	<0.1	<0.1	<0.1	<0.1					
11/4/2016									
11/14/2016						0.18 (J)		0.71	
11/15/2016							0.12 (J)		
11/16/2016									
11/28/2016									0.12 (J)
12/15/2016									
1/10/2017									
1/11/2017	<0.1	<0.1		<0.1					
1/12/2017									
1/13/2017			<0.1		<0.1				
1/16/2017									
2/21/2017									
2/22/2017									0.09 (J)
2/24/2017						0.05 (J)			
2/27/2017								0.22 (J)	
2/28/2017							0.07 (J)		
3/1/2017	<0.1	<0.1							
3/2/2017				<0.1					
3/3/2017									
3/6/2017			<0.1		<0.1				
3/7/2017									
3/8/2017									
4/26/2017	<0.1	<0.1	0.04 (J)		<0.1				
4/27/2017									
4/28/2017									
5/1/2017									
5/2/2017				<0.1					
5/8/2017						0.03 (J)	0.04 (J)		0.05 (J)
5/9/2017								0.2 (J)	
5/26/2017									
6/27/2017									
6/28/2017	<0.1	<0.1							
6/29/2017			<0.1	<0.1	<0.1				

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 11/25/2020 7:46 PM View: Appendix III

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-18I (bg)	YGWA-18S (bg)	YGWA-21I (bg)	YGWA-17S (bg)	YGWA-20S (bg)	YGWA-47 (bg)	YGWC-44	YGWC-45	GWA-2 (bg)
6/30/2017									
7/11/2017						0.07 (J)			
7/13/2017							<0.1	0.11 (J)	
7/17/2017									0.14 (J)
10/3/2017			<0.1						
10/4/2017		<0.1		<0.1	<0.1				
10/5/2017	<0.1								
10/10/2017						<0.1	<0.1	0.39	
10/11/2017									
10/12/2017									
10/16/2017									0.12 (J)
11/20/2017									
1/10/2018									
1/11/2018									
2/19/2018									0.17
2/20/2018									
3/27/2018									
3/28/2018	<0.1	<0.1		<0.1					
3/29/2018			<0.1		<0.1				
4/2/2018						<0.1			
4/3/2018								<0.1	
4/4/2018							<0.1		
6/5/2018			0.13 (J)						
6/6/2018					<0.1				
6/7/2018	<0.1								
6/8/2018									
6/11/2018		<0.1		<0.1					
6/28/2018									
8/6/2018									0.087 (J)
8/7/2018									
9/19/2018						<0.1	<0.1	<0.1	
9/24/2018									
9/25/2018	<0.1	<0.1	0 (J)	<0.1	<0.1				
9/26/2018									
10/1/2018									
10/2/2018									
2/25/2019									0.14 (J)
2/26/2019									
2/27/2019									
3/4/2019									
3/5/2019		<0.1	0.32	<0.1	<0.1				
3/6/2019	<0.1								
3/26/2019									
3/27/2019						0.081 (J)	<0.1	0.18 (J)	
3/28/2019									
3/29/2019									
4/1/2019									
4/2/2019			0.12 (J)	<0.1					
4/3/2019	<0.1	<0.1			<0.1				
6/12/2019									0.12 (J)
8/19/2019									<0.1
8/20/2019						<0.1	<0.1	<0.1	

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 11/25/2020 7:46 PM View: Appendix III

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-18I (bg)	YGWA-18S (bg)	YGWA-21I (bg)	YGWA-17S (bg)	YGWA-20S (bg)	YGWA-47 (bg)	YGWC-44	YGWC-45	GWA-2 (bg)
8/21/2019									
9/24/2019			0.15 (J)						
9/25/2019				<0.1	<0.1				
9/26/2019	<0.1	<0.1							
10/8/2019						0.034 (J)	<0.1		0.052 (J)
10/9/2019								<0.1	
2/10/2020									
2/11/2020	<0.1	<0.1		<0.1					
2/12/2020			0.1 (J)		<0.1				
3/17/2020						<0.1	<0.1	0.076 (J)	0.053 (J)
3/18/2020									
3/19/2020									
3/24/2020	<0.1	<0.1	0.081 (J)	<0.1	<0.1				
3/25/2020									
7/6/2020									
8/26/2020									0.068 (J)
8/27/2020						<0.1	<0.1		
8/28/2020								0.07 (J)	
9/22/2020						<0.1	<0.1		0.058 (J)
9/23/2020	<0.1	<0.1		<0.1				0.082 (J)	
9/24/2020			0.079 (J)		<0.1				
9/25/2020									

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 11/25/2020 7:46 PM View: Appendix III

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWC-46A	YGWA-2I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWC-52
6/1/2016					
6/2/2016					
6/6/2016					
6/7/2016					
7/25/2016					
7/26/2016					
7/27/2016					
7/28/2016					
8/30/2016					
8/31/2016					
9/1/2016	0.08 (J)				
9/13/2016					
9/14/2016		0.08 (J)			
9/15/2016					
9/16/2016					
9/19/2016					
11/1/2016					
11/2/2016					
11/3/2016					
11/4/2016		<0.1			
11/14/2016					
11/15/2016					
11/16/2016	0.04 (J)				
11/28/2016					
12/15/2016		0.06 (J)			
1/10/2017					
1/11/2017					
1/12/2017					
1/13/2017					
1/16/2017		0.1 (J)			
2/21/2017					
2/22/2017					
2/24/2017					
2/27/2017	0.05 (J)				
2/28/2017					
3/1/2017					
3/2/2017					
3/3/2017		<0.1			
3/6/2017					
3/7/2017					
3/8/2017					
4/26/2017					
4/27/2017					
4/28/2017		0.06 (J)			
5/1/2017					
5/2/2017					
5/8/2017	0.004 (J)				
5/9/2017					
5/26/2017		0.09 (J)			
6/27/2017					
6/28/2017		0.11 (J)			
6/29/2017					

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 11/25/2020 7:46 PM View: Appendix III

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWC-46A	YGWA-2I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWC-52
6/30/2017					
7/11/2017					
7/13/2017	0.35				
7/17/2017					
10/3/2017		<0.1			
10/4/2017					
10/5/2017					
10/10/2017					
10/11/2017	<0.1		<0.1		
10/12/2017				<0.1	
10/16/2017					
11/20/2017			<0.1	<0.1	
1/10/2018				<0.1	
1/11/2018			<0.1		
2/19/2018				<0.1	
2/20/2018			0.23		
3/27/2018					
3/28/2018		0.31			
3/29/2018					
4/2/2018					
4/3/2018			<0.1	<0.1	
4/4/2018	<0.1				
6/5/2018					
6/6/2018					
6/7/2018		0.11 (J)			
6/8/2018					
6/11/2018					
6/28/2018			<0.1	<0.1	
8/6/2018					
8/7/2018			0.048 (J)	<0.1	
9/19/2018	<0.1				
9/24/2018			<0.1	<0.1	
9/25/2018					
9/26/2018					
10/1/2018		<0.1			
10/2/2018					
2/25/2019					
2/26/2019					
2/27/2019		0.12 (J)			
3/4/2019					
3/5/2019					
3/6/2019					
3/26/2019				<0.1	
3/27/2019	0.12 (J)		<0.1		
3/28/2019					
3/29/2019		0.13 (J)			
4/1/2019					
4/2/2019					
4/3/2019					
6/12/2019					
8/19/2019					
8/20/2019					

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 11/25/2020 7:46 PM View: Appendix III

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWC-46A	YGWA-2I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWC-52
8/21/2019	<0.1		<0.1	<0.1	
9/24/2019		0.081 (J)			
9/25/2019					
9/26/2019					
10/8/2019					
10/9/2019	0.12 (J)		<0.1	<0.1	
2/10/2020					
2/11/2020		0.075 (J)			
2/12/2020			<0.1	<0.1	
3/17/2020	<0.1				
3/18/2020					
3/19/2020		0.093 (J)			
3/24/2020				<0.1	
3/25/2020			<0.1		
7/6/2020	0.12				
8/26/2020					
8/27/2020					<0.1
8/28/2020	0.12				
9/22/2020					<0.1
9/23/2020	0.12	0.08 (J)			
9/24/2020			<0.1	<0.1	
9/25/2020					

Prediction Limit

Constituent: pH (S.U.) Analysis Run 11/25/2020 7:46 PM View: Appendix III

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	GWA-2 (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-3I (bg)	YGWA-14S (bg)	YGWA-5I (bg)	YGWA-5D (bg)	YGWA-4I (bg)	YGWA-3D (bg)
8/27/2008	6.53								
3/3/2009	6.35								
11/18/2009	6.47								
3/3/2010	6.53								
3/10/2011	5.83								
9/8/2011	5.69								
3/5/2012	6.27								
9/10/2012	6.23								
2/6/2013	7.56								
8/12/2013	6.68								
2/5/2014	6.32								
8/3/2015	6.13 (D)								
2/16/2016	5.64								
6/1/2016		7.46	6.33	7.72					
6/2/2016					5.46	5.75	7.67	6.36	7.84
6/6/2016									
6/7/2016									
7/25/2016			6.21	7.74					
7/26/2016		7.43			5.45	5.72	7.66	6.22	7.88
7/27/2016									
7/28/2016									
8/30/2016									
8/31/2016									
9/1/2016									
9/13/2016		7.44	6.16						
9/14/2016				7.65		5.74	7.6	6.23	
9/15/2016					5.45				7.74
9/16/2016									
9/19/2016									
11/1/2016		7.24		7.7					7.75
11/2/2016					5.41		7.35	6.08	
11/3/2016									
11/4/2016			6.29			5.61			
11/14/2016									
11/15/2016									
11/16/2016									
11/28/2016	6.23								
12/15/2016									
1/10/2017					5.37				
1/11/2017		7.3		7.53					7.66
1/12/2017						5.71	7.49		
1/13/2017								6.19	
1/16/2017			6.29						
2/21/2017									
2/22/2017	6.21								
2/24/2017									
2/27/2017									
2/28/2017									
3/1/2017				7.42					
3/2/2017		7.23	6.28						7.68
3/3/2017									
3/6/2017								6.2	

Prediction Limit

Constituent: pH (S.U.) Analysis Run 11/25/2020 7:46 PM View: Appendix III

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	GWA-2 (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-3I (bg)	YGWA-14S (bg)	YGWA-5I (bg)	YGWA-5D (bg)	YGWA-4I (bg)	YGWA-3D (bg)
3/7/2017						5.66	7.43		
3/8/2017					5.41				
4/26/2017				7.4	5.02				7.45
4/27/2017		6.99	6.09						
4/28/2017									
5/1/2017							7.22	6.21	
5/2/2017						5.65			
5/8/2017	6.12								
5/9/2017									
5/26/2017									
6/27/2017		6.87	6.21			5.7	7.32		
6/28/2017				7.5					7.65
6/29/2017								6.21	
6/30/2017					5.39				
7/11/2017									
7/13/2017									
7/17/2017	6.03								
10/3/2017		6.81	5.98			5.79	7.48		
10/4/2017				7.45					7.49
10/5/2017					5.49			6.16	
10/10/2017									
10/11/2017									
10/12/2017									
10/16/2017	6.12								
11/20/2017									
1/10/2018									
1/11/2018									
2/19/2018	6.13								
2/20/2018									
3/27/2018			6.25		5.47				
3/28/2018				7.74					7.91
3/29/2018		7.38				5.63	7.02	6.09	
4/2/2018									
4/3/2018									
4/4/2018									
6/5/2018		7.16							
6/6/2018			6.17				7.43		
6/7/2018						5.63		6.12	7.69
6/8/2018				7.64	5.45				
6/11/2018									
6/28/2018									
8/6/2018	6.01								
8/7/2018									
9/19/2018									
9/24/2018									
9/25/2018									
9/26/2018						5.63	7.13	5.84	
10/1/2018		6.8	5.9	7.47	5.39				7.39
10/2/2018									
2/25/2019	6.51								
2/26/2019					5.46				
2/27/2019		6.84	5.8	7.54					7.55

Prediction Limit

Constituent: pH (S.U.) Analysis Run 11/25/2020 7:46 PM View: Appendix III

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	GWA-2 (bg)	YGWA-1D (bg)	YGWA-1I (bg)	YGWA-3I (bg)	YGWA-14S (bg)	YGWA-5I (bg)	YGWA-5D (bg)	YGWA-4I (bg)	YGWA-3D (bg)
3/4/2019						5.75	7.46	6.18	
3/5/2019									
3/6/2019									
3/26/2019									
3/27/2019									
3/28/2019		6.99	6.15						
3/29/2019					5.34				
4/1/2019				7.74					7.87
4/2/2019									
4/3/2019						5.63	7.11	6.43	
6/12/2019	6.3								
8/19/2019	6.23								
8/20/2019									
8/21/2019									
9/24/2019		7.07	6.23			5.6	6.93		
9/25/2019				7.47	5.19			6.2	7.64
9/26/2019									
10/8/2019	6.28								
10/9/2019									
2/10/2020		7.2	6.1						
2/11/2020				7.09					
2/12/2020					5.48	5.83	7.52	6.15	7.83
3/17/2020	6.14								
3/18/2020			6.19		5.38				
3/19/2020		7.03		7.31					7.65
3/24/2020						5.81	7.34		
3/25/2020								6.26	
5/6/2020	6.24								
7/6/2020									
8/26/2020	5.67								
8/27/2020									
8/28/2020									
9/22/2020	5.78					5.99	7.19	5.8	
9/23/2020		7.15	6.01	7.37					7.57
9/24/2020									
9/25/2020					5.44				

Prediction Limit

Constituent: pH (S.U.) Analysis Run 11/25/2020 7:46 PM View: Appendix III

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-30I (bg)	YGWA-18S (bg)	YGWA-18I (bg)	YGWA-21I (bg)	YGWA-17S (bg)	YGWA-20S (bg)	YGWA-47 (bg)	YGWC-45	YGWC-44
8/27/2008									
3/3/2009									
11/18/2009									
3/3/2010									
3/10/2011									
9/8/2011									
3/5/2012									
9/10/2012									
2/6/2013									
8/12/2013									
2/5/2014									
8/3/2015									
2/16/2016									
6/1/2016									
6/2/2016	5.75								
6/6/2016		5.71	6.17						
6/7/2016				6.1	5.62	5.77			
7/25/2016	5.82								
7/26/2016									
7/27/2016		5.46	6.14		5.59	5.79			
7/28/2016				6.12					
8/30/2016							5.75		
8/31/2016								7.15	6.01
9/1/2016									
9/13/2016									
9/14/2016									
9/15/2016									
9/16/2016					5.58				
9/19/2016	5.78 (D)	5.59	6.04	6.12		5.73			
11/1/2016	5.62								
11/2/2016						5.67			
11/3/2016		5.39	5.97	6.07	5.59				
11/4/2016									
11/14/2016							5.59	6.96	
11/15/2016									5.91
11/16/2016									
11/28/2016									
12/15/2016									
1/10/2017									
1/11/2017		5.48	6.05		5.59				
1/12/2017									
1/13/2017				6.41		5.79			
1/16/2017	5.72								
2/21/2017	5.67								
2/22/2017									
2/24/2017							5.49		
2/27/2017								6.79	
2/28/2017									5.85
3/1/2017		5.41	5.94						
3/2/2017					5.54				
3/3/2017									
3/6/2017				6.34		5.63			

Prediction Limit

Constituent: pH (S.U.) Analysis Run 11/25/2020 7:46 PM View: Appendix III

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-30I (bg)	YGWA-18S (bg)	YGWA-18I (bg)	YGWA-21I (bg)	YGWA-17S (bg)	YGWA-20S (bg)	YGWA-47 (bg)	YGWC-45	YGWC-44
3/7/2017									
3/8/2017									
4/26/2017	5.56	5.4	5.99	6.32		5.66			
4/27/2017									
4/28/2017									
5/1/2017									
5/2/2017					5.47				
5/8/2017							5.58		5.91
5/9/2017								6.9	
5/26/2017									
6/27/2017									
6/28/2017		5.36	6						
6/29/2017				6.47	5.56	5.85			
6/30/2017	5.72								
7/11/2017							5.58		
7/13/2017								6.77	5.8
7/17/2017									
10/3/2017				6.56					
10/4/2017	5.87	5.32			5.57	5.83			
10/5/2017			6.11						
10/10/2017							5.49	6.9	5.76
10/11/2017									
10/12/2017									
10/16/2017									
11/20/2017									
1/10/2018									
1/11/2018									
2/19/2018									
2/20/2018									
3/27/2018	5.83								
3/28/2018		5.34	6.1		5.59				
3/29/2018				6.75		5.93			
4/2/2018							6.3 (o)		
4/3/2018								6.44	
4/4/2018									5.77
6/5/2018				6.09					
6/6/2018						5.86			
6/7/2018			5.98						
6/8/2018									
6/11/2018	5.69	5.28			5.58				
6/28/2018									
8/6/2018									
8/7/2018									
9/19/2018							5.48	6.47	5.77
9/24/2018									
9/25/2018		4.86	5.81	6.67	5.59	5.84			
9/26/2018									
10/1/2018									
10/2/2018	5.39								
2/25/2019									
2/26/2019	5.77								
2/27/2019									

Prediction Limit

Constituent: pH (S.U.) Analysis Run 11/25/2020 7:46 PM View: Appendix III

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-30I (bg)	YGWA-18S (bg)	YGWA-18I (bg)	YGWA-21I (bg)	YGWA-17S (bg)	YGWA-20S (bg)	YGWA-47 (bg)	YGWC-45	YGWC-44
3/4/2019									
3/5/2019		5.26		7.22	5.48	6.07			
3/6/2019			5.99						
3/26/2019									
3/27/2019							5.83	7.18	6.1
3/28/2019									
3/29/2019									
4/1/2019	5.62								
4/2/2019				6.94	5.74				
4/3/2019		5.47	6.29			5.71			
6/12/2019									
8/19/2019									
8/20/2019							5.58	6.48	5.78
8/21/2019									
9/24/2019				6.87					
9/25/2019	5.69				5.49	5.86			
9/26/2019		5.2	6.04						
10/8/2019							5.59		5.84
10/9/2019								6.55	
2/10/2020									
2/11/2020		5.3	6.07		5.58				
2/12/2020	5.8			7.13		6			
3/17/2020							5.57	6.69	5.9
3/18/2020									
3/19/2020	6								
3/24/2020		5.33	5.98	6.35	5.57	5.86			
3/25/2020									
5/6/2020									
7/6/2020									
8/26/2020									
8/27/2020							4.88		5.75
8/28/2020								6.84	
9/22/2020							5.46		5.53
9/23/2020		5.29	6.01		5.58			6.57	
9/24/2020	5.67			6.7		5.8			
9/25/2020									

Prediction Limit

Constituent: pH (S.U.) Analysis Run 11/25/2020 7:46 PM View: Appendix III

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWC-46A	YGWA-2I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWC-52
8/27/2008					
3/3/2009					
11/18/2009					
3/3/2010					
3/10/2011					
9/8/2011					
3/5/2012					
9/10/2012					
2/6/2013					
8/12/2013					
2/5/2014					
8/3/2015					
2/16/2016					
6/1/2016					
6/2/2016					
6/6/2016					
6/7/2016					
7/25/2016					
7/26/2016					
7/27/2016					
7/28/2016					
8/30/2016					
8/31/2016					
9/1/2016	6.19				
9/13/2016		7.41			
9/14/2016					
9/15/2016					
9/16/2016					
9/19/2016					
11/1/2016					
11/2/2016					
11/3/2016					
11/4/2016		7.12			
11/14/2016					
11/15/2016					
11/16/2016	6.05				
11/28/2016					
12/15/2016		7.24			
1/10/2017					
1/11/2017					
1/12/2017					
1/13/2017					
1/16/2017		7.24			
2/21/2017					
2/22/2017					
2/24/2017					
2/27/2017	6.01				
2/28/2017					
3/1/2017					
3/2/2017					
3/3/2017		7.22			
3/6/2017					

Prediction Limit

Constituent: pH (S.U.) Analysis Run 11/25/2020 7:46 PM View: Appendix III

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWC-46A	YGWA-2I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWC-52
3/7/2017					
3/8/2017					
4/26/2017					
4/27/2017					
4/28/2017		7.21			
5/1/2017					
5/2/2017					
5/8/2017	6.1				
5/9/2017					
5/26/2017		7.13			
6/27/2017					
6/28/2017		7.06			
6/29/2017					
6/30/2017					
7/11/2017					
7/13/2017	6.07				
7/17/2017					
10/3/2017		6.99			
10/4/2017					
10/5/2017					
10/10/2017					
10/11/2017	5.93		6.4		
10/12/2017				5.43	
10/16/2017					
11/20/2017			6.33	5.1	
1/10/2018				4.97	
1/11/2018			6.29		
2/19/2018				5.6	
2/20/2018			7.22		
3/27/2018					
3/28/2018		7.3			
3/29/2018					
4/2/2018					
4/3/2018			6.87	5.84	
4/4/2018	6.01				
6/5/2018					
6/6/2018					
6/7/2018		7.29			
6/8/2018					
6/11/2018					
6/28/2018			6.18	5.24	
8/6/2018					
8/7/2018			6.08	5.18	
9/19/2018	6.09				
9/24/2018			5.81	5.14	
9/25/2018					
9/26/2018					
10/1/2018		7.07			
10/2/2018					
2/25/2019					
2/26/2019					
2/27/2019		7.27			

Prediction Limit

Constituent: pH (S.U.) Analysis Run 11/25/2020 7:46 PM View: Appendix III

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWC-46A	YGWA-2I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWC-52
3/4/2019					
3/5/2019					
3/6/2019					
3/26/2019				5.3	
3/27/2019	6.2		5.84		
3/28/2019					
3/29/2019		7.06			
4/1/2019					
4/2/2019					
4/3/2019					
6/12/2019					
8/19/2019					
8/20/2019					
8/21/2019	5.82		5.96	5.26	
9/24/2019		7.01			
9/25/2019					
9/26/2019					
10/8/2019					
10/9/2019	5.96		5.81	5.22	
2/10/2020					
2/11/2020		7.38			
2/12/2020			5.97	5.3	
3/17/2020	5.99				
3/18/2020					
3/19/2020		7.22			
3/24/2020				5.29	
3/25/2020			5.78		
5/6/2020					
7/6/2020	6.89				
8/26/2020					
8/27/2020					5.8
8/28/2020	7.05				
9/22/2020					5.91
9/23/2020	6.81	7.22			
9/24/2020			5.7	5.43	
9/25/2020					

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 11/25/2020 7:46 PM View: Appendix III

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-1I (bg)	YGWA-3I (bg)	YGWA-1D (bg)	YGWA-4I (bg)	YGWA-5D (bg)	YGWA-3D (bg)	YGWA-5I (bg)	YGWA-30I (bg)	YGWA-14S (bg)
6/1/2016	4.2	12	5						
6/2/2016				8	20	5.8	1.9	1.3	6.6
6/6/2016									
6/7/2016									
7/25/2016	3.7	8.4						1.2	
7/26/2016			5.4	7.7	20	6.7	1.8		6.1
7/27/2016									
7/28/2016									
8/30/2016									
8/31/2016									
9/1/2016									
9/13/2016	5.2		2.9						
9/14/2016		8.6		7.5	19		1.8		
9/15/2016						6			6.1
9/16/2016									
9/19/2016								1.2	
11/1/2016		8.9	3.9			4.9		1.3	
11/2/2016				8.2	20				6.3
11/3/2016									
11/4/2016	5						2		
11/14/2016									
11/15/2016									
11/16/2016									
11/28/2016									
12/15/2016									
1/10/2017									5.9
1/11/2017		8.6	3.7			4.5			
1/12/2017					19		1.9		
1/13/2017				8.1					
1/16/2017	7.9							<1	
2/21/2017								1.4	
2/22/2017									
2/24/2017									
2/27/2017									
2/28/2017									
3/1/2017		9.3							
3/2/2017	7.4		4.6			4.4			
3/3/2017									
3/6/2017				8					
3/7/2017					20		2.1		
3/8/2017									7
4/26/2017		11				5.1		1.4	7
4/27/2017	7.4		5.2						
4/28/2017									
5/1/2017				8.4	20				
5/2/2017							2		
5/8/2017									
5/9/2017									
5/26/2017									
6/27/2017	6.4		5.9		18		2.1		
6/28/2017		12				5.4			
6/29/2017				9.2					

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 11/25/2020 7:46 PM View: Appendix III

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-1I (bg)	YGWA-3I (bg)	YGWA-1D (bg)	YGWA-4I (bg)	YGWA-5D (bg)	YGWA-3D (bg)	YGWA-5I (bg)	YGWA-30I (bg)	YGWA-14S (bg)
6/30/2017								<1	6.5
7/11/2017									
7/13/2017									
7/17/2017									
10/3/2017	5.9		6.6		16		2.3		
10/4/2017		12				6.2		1.4	
10/5/2017				9.6					7.9
10/10/2017									
10/11/2017									
10/12/2017									
10/16/2017									
11/20/2017									
1/10/2018									
1/11/2018									
2/19/2018									
2/20/2018									
4/2/2018									
4/3/2018									
4/4/2018									
6/5/2018			6.4						
6/6/2018	4.4				8.3				
6/7/2018				8.5		6.7	2		
6/8/2018		9.6							6.4
6/11/2018								1.1	
6/28/2018									
8/6/2018									
8/7/2018									
9/19/2018									
9/24/2018									
9/25/2018									
9/26/2018				10.2	7.9		2.3		
10/1/2018	4	9.1	5.6			7.1			6.8
10/2/2018								1	
2/25/2019									
3/26/2019									
3/27/2019									
3/28/2019	4.3		8						
3/29/2019									7.3
4/1/2019		8.5				7.2		0.96 (J)	
4/2/2019									
4/3/2019				8.5	7		2.1		
6/12/2019									
9/24/2019	4.3		5.3		5.5		2.4		
9/25/2019		13.8		8.5		7		0.81 (J)	6.6
9/26/2019									
10/8/2019									
10/9/2019									
3/17/2020									
3/18/2020	5.3								8.1
3/19/2020		12.9	10			9		1.6	
3/24/2020					5.9		2.1		
3/25/2020				8.8					

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 11/25/2020 7:46 PM View: Appendix III

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-1I (bg)	YGWA-3I (bg)	YGWA-1D (bg)	YGWA-4I (bg)	YGWA-5D (bg)	YGWA-3D (bg)	YGWA-5I (bg)	YGWA-30I (bg)	YGWA-14S (bg)
7/6/2020									
8/27/2020									
8/28/2020									
9/22/2020				8.2	5.5		2.1		
9/23/2020	3.4	16.8	8.1			6.9			
9/24/2020								0.69 (J)	
9/25/2020									6.1

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 11/25/2020 7:46 PM View: Appendix III

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-18I (bg)	YGWA-18S (bg)	YGWA-17S (bg)	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-47 (bg)	YGWC-44	GWA-2 (bg)	YGWC-45
6/1/2016									
6/2/2016									
6/6/2016	1.2	1.8							
6/7/2016			4.4	<1	5.2				
7/25/2016									
7/26/2016									
7/27/2016	1.7	1.9	4.7	0.08 (J)					
7/28/2016					5.1				
8/30/2016						160			
8/31/2016							150	29	190
9/1/2016									
9/13/2016									
9/14/2016									
9/15/2016									
9/16/2016		1.7	4.8						
9/19/2016	1.8			0.08 (J)	4.8				
11/1/2016									
11/2/2016				0.1 (J)					
11/3/2016	0.69 (J)	1.9	5.3		5				
11/4/2016									
11/14/2016						150			200
11/15/2016							150		
11/16/2016									
11/28/2016								36	
12/15/2016									
1/10/2017									
1/11/2017	<1	1.7	5.2						
1/12/2017									
1/13/2017				<1	4.3				
1/16/2017									
2/21/2017									
2/22/2017								43	
2/24/2017						120			
2/27/2017									190
2/28/2017							130		
3/1/2017	1.8	<1							
3/2/2017			5						
3/3/2017									
3/6/2017				<1	4.5				
3/7/2017									
3/8/2017									
4/26/2017	1.6	1.9		<1	4.9				
4/27/2017									
4/28/2017									
5/1/2017									
5/2/2017			5						
5/8/2017						120	150	60	
5/9/2017									190
5/26/2017									
6/27/2017									
6/28/2017	<1	<1							
6/29/2017			5.2	<1	5.5				

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 11/25/2020 7:46 PM View: Appendix III

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-18I (bg)	YGWA-18S (bg)	YGWA-17S (bg)	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-47 (bg)	YGWC-44	GWA-2 (bg)	YGWC-45
6/30/2017									
7/11/2017						110			
7/13/2017							150		180
7/17/2017								63	
10/3/2017					5.8				
10/4/2017		1.7	5.3	<1					
10/5/2017	1.6								
10/10/2017						93	140		180
10/11/2017									
10/12/2017									
10/16/2017								62	
11/20/2017									
1/10/2018									
1/11/2018									
2/19/2018								64.6	
2/20/2018									
4/2/2018						88.8			
4/3/2018									183
4/4/2018							137		
6/5/2018					6.1				
6/6/2018				0.049 (J)					
6/7/2018	0.68 (J)								
6/8/2018									
6/11/2018		0.95 (J)	5.2						
6/28/2018									
8/6/2018								42.1	
8/7/2018									
9/19/2018						75	137		192
9/24/2018									
9/25/2018	1	1.5	6.1	0.13 (J)	7				
9/26/2018									
10/1/2018									
10/2/2018									
2/25/2019								42.1	
3/26/2019									
3/27/2019						65.9	146		188
3/28/2019									
3/29/2019									
4/1/2019									
4/2/2019			5.1		3.8				
4/3/2019	0.82 (J)	1.3		0.12 (J)					
6/12/2019								83.4	
9/24/2019					1				
9/25/2019			5.5	<1					
9/26/2019	0.64 (J)	1							
10/8/2019						52.3	142	128	
10/9/2019									183
3/17/2020						71.6	121	98.6	161
3/18/2020									
3/19/2020									
3/24/2020	<1	0.99 (J)	5.4	<1	3				
3/25/2020									

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 11/25/2020 7:46 PM View: Appendix III

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-18I (bg)	YGWA-18S (bg)	YGWA-17S (bg)	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-47 (bg)	YGWC-44	GWA-2 (bg)	YGWC-45
7/6/2020									
8/27/2020									
8/28/2020									
9/22/2020						51.5	130	145	
9/23/2020	0.53 (J)	1.1	5.1						170
9/24/2020				<1	3.6				
9/25/2020									

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 11/25/2020 7:46 PM View: Appendix III

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWC-46A	YGWA-2I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWC-52
6/1/2016					
6/2/2016					
6/6/2016					
6/7/2016					
7/25/2016					
7/26/2016					
7/27/2016					
7/28/2016					
8/30/2016					
8/31/2016					
9/1/2016	770				
9/13/2016					
9/14/2016		9.4			
9/15/2016					
9/16/2016					
9/19/2016					
11/1/2016					
11/2/2016					
11/3/2016					
11/4/2016		13			
11/14/2016					
11/15/2016					
11/16/2016	780				
11/28/2016					
12/15/2016		1.8			
1/10/2017					
1/11/2017					
1/12/2017					
1/13/2017					
1/16/2017		11			
2/21/2017					
2/22/2017					
2/24/2017					
2/27/2017	650				
2/28/2017					
3/1/2017					
3/2/2017					
3/3/2017		8.8			
3/6/2017					
3/7/2017					
3/8/2017					
4/26/2017					
4/27/2017					
4/28/2017		10			
5/1/2017					
5/2/2017					
5/8/2017	770				
5/9/2017					
5/26/2017		12			
6/27/2017					
6/28/2017		11			
6/29/2017					

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 11/25/2020 7:46 PM View: Appendix III

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWC-46A	YGWA-2I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWC-52
6/30/2017					
7/11/2017					
7/13/2017	630				
7/17/2017					
10/3/2017		7.9			
10/4/2017					
10/5/2017					
10/10/2017					
10/11/2017	540		20		
10/12/2017				17	
10/16/2017					
11/20/2017			24	71	
1/10/2018				66	
1/11/2018			23		
2/19/2018				57.2	
2/20/2018			20.6		
4/2/2018					
4/3/2018			24.5	49.4	
4/4/2018	430				
6/5/2018					
6/6/2018					
6/7/2018		8.8			
6/8/2018					
6/11/2018					
6/28/2018			22	43.8	
8/6/2018					
8/7/2018			20.7	40.5	
9/19/2018	395				
9/24/2018			21.2	39.7	
9/25/2018					
9/26/2018					
10/1/2018		9.1			
10/2/2018					
2/25/2019					
3/26/2019				34.3	
3/27/2019	437		17.7		
3/28/2019					
3/29/2019		9			
4/1/2019					
4/2/2019					
4/3/2019					
6/12/2019					
9/24/2019		9.1			
9/25/2019					
9/26/2019					
10/8/2019					
10/9/2019	<1		15	27.9	
3/17/2020	439				
3/18/2020					
3/19/2020		12.4			
3/24/2020				25.2	
3/25/2020			14.3		

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 11/25/2020 7:46 PM View: Appendix III

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWC-46A	YGWA-2I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWC-52
7/6/2020	385				
8/27/2020					144
8/28/2020	394				
9/22/2020					156
9/23/2020	430	11.8			
9/24/2020			11.7	22.9	
9/25/2020					

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 11/25/2020 7:46 PM View: Appendix III

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-1I (bg)	YGWA-3I (bg)	YGWA-1D (bg)	YGWA-4I (bg)	YGWA-5D (bg)	YGWA-3D (bg)	YGWA-5I (bg)	YGWA-30I (bg)	YGWA-14S (bg)
6/1/2016	54	150	120						
6/2/2016				96	160	130	66	36	46
6/6/2016									
6/7/2016									
7/25/2016	48	135						50	
7/26/2016			94	92	177	141	78		54
7/27/2016									
7/28/2016									
8/30/2016									
8/31/2016									
9/1/2016									
9/13/2016	67		105						
9/14/2016		127		102	187		73		
9/15/2016						153			54
9/16/2016									
9/19/2016								35	
11/1/2016		75	44			92		<25	
11/2/2016				115	181				71
11/3/2016									
11/4/2016	60						75		
11/14/2016									
11/15/2016									
11/16/2016									
11/28/2016									
12/15/2016									
1/10/2017									45
1/11/2017		148	107			159			
1/12/2017					202		86		
1/13/2017				67					
1/16/2017	65							47	
2/21/2017								<25	
2/22/2017									
2/24/2017									
2/27/2017									
2/28/2017									
3/1/2017		182							
3/2/2017	61		98			117			
3/3/2017									
3/6/2017				159					
3/7/2017					257		108		
3/8/2017									178
4/26/2017		92				181		55	52
4/27/2017	31		116						
4/28/2017									
5/1/2017				107	165				
5/2/2017							103		
5/8/2017									
5/9/2017									
5/26/2017									
6/27/2017	42		89		189		73		
6/28/2017		126				169			
6/29/2017				79					

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 11/25/2020 7:46 PM View: Appendix III

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-1I (bg)	YGWA-3I (bg)	YGWA-1D (bg)	YGWA-4I (bg)	YGWA-5D (bg)	YGWA-3D (bg)	YGWA-5I (bg)	YGWA-30I (bg)	YGWA-14S (bg)
6/30/2017								42	45
7/11/2017									
7/13/2017									
7/17/2017									
10/3/2017	58		119		170		89		
10/4/2017		147				141		31	
10/5/2017				95					40
10/10/2017									
10/11/2017									
10/12/2017									
10/16/2017									
11/20/2017									
1/10/2018									
1/11/2018									
2/19/2018									
2/20/2018									
4/2/2018									
4/3/2018									
4/4/2018									
6/5/2018			127						
6/6/2018	96				151				
6/7/2018				90		95	142		
6/8/2018		158							114
6/11/2018								59	
6/28/2018									
8/6/2018									
8/7/2018									
9/19/2018									
9/24/2018									
9/25/2018									
9/26/2018				116	144		86		
10/1/2018	60	138	117			165			50
10/2/2018								57	
2/25/2019									
3/26/2019									
3/27/2019									
3/28/2019	87		87						
3/29/2019									63
4/1/2019		19 (J)				149		54	
4/2/2019									
4/3/2019				111	142		83		
6/12/2019									
9/24/2019	54		124		129		79		
9/25/2019		159		117		157		51	64
9/26/2019									
10/8/2019									
10/9/2019									
3/17/2020									
3/18/2020	35								57
3/19/2020		148	116			146		47	
3/24/2020					139		68		
3/25/2020				146					

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 11/25/2020 7:46 PM View: Appendix III

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-1I (bg)	YGWA-3I (bg)	YGWA-1D (bg)	YGWA-4I (bg)	YGWA-5D (bg)	YGWA-3D (bg)	YGWA-5I (bg)	YGWA-30I (bg)	YGWA-14S (bg)
7/6/2020									
8/27/2020									
8/28/2020									
9/22/2020				83	104		75		
9/23/2020	15	155	108			157			
9/24/2020								51	
9/25/2020									54

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 11/25/2020 7:46 PM View: Appendix III

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-18I (bg)	YGWA-18S (bg)	YGWA-17S (bg)	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-47 (bg)	YGWC-44	GWA-2 (bg)	YGWC-45
6/1/2016									
6/2/2016									
6/6/2016	120	58							
6/7/2016			28	38	60				
7/25/2016									
7/26/2016									
7/27/2016	94	35	74	74					
7/28/2016					81				
8/30/2016						319			
8/31/2016							332	209	402
9/1/2016									
9/13/2016									
9/14/2016									
9/15/2016									
9/16/2016		35	67						
9/19/2016	92			45	68				
11/1/2016									
11/2/2016				53					
11/3/2016	104	48	41		61				
11/4/2016									
11/14/2016						280			445
11/15/2016							356		
11/16/2016									
11/28/2016								102	
12/15/2016									
1/10/2017									
1/11/2017	133	95	104						
1/12/2017									
1/13/2017				46	76				
1/16/2017									
2/21/2017									
2/22/2017								164	
2/24/2017						162			
2/27/2017									346
2/28/2017							483		
3/1/2017	119	79							
3/2/2017			77						
3/3/2017									
3/6/2017				164	167				
3/7/2017									
3/8/2017									
4/26/2017	162	36		34	50				
4/27/2017									
4/28/2017									
5/1/2017									
5/2/2017			142						
5/8/2017						194	296	145	
5/9/2017									388
5/26/2017									
6/27/2017									
6/28/2017	98	45							
6/29/2017			53	68	94				

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 11/25/2020 7:46 PM View: Appendix III

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-18I (bg)	YGWA-18S (bg)	YGWA-17S (bg)	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-47 (bg)	YGWC-44	GWA-2 (bg)	YGWC-45
6/30/2017									
7/11/2017						193			
7/13/2017							345		433
7/17/2017								185	
10/3/2017					149				
10/4/2017		45	61	54					
10/5/2017	104								
10/10/2017						175	311		396
10/11/2017									
10/12/2017									
10/16/2017								218	
11/20/2017									
1/10/2018									
1/11/2018									
2/19/2018								173	
2/20/2018									
4/2/2018						192			
4/3/2018									418
4/4/2018							313		
6/5/2018					109				
6/6/2018				79					
6/7/2018	68								
6/8/2018									
6/11/2018		74	70						
6/28/2018									
8/6/2018								158	
8/7/2018									
9/19/2018						186	326		413
9/24/2018									
9/25/2018	109	63	86	73	122				
9/26/2018									
10/1/2018									
10/2/2018									
2/25/2019								92	
3/26/2019									
3/27/2019						170	302		383
3/28/2019									
3/29/2019									
4/1/2019									
4/2/2019			72		134				
4/3/2019	89	63		57					
6/12/2019								226	
9/24/2019					157				
9/25/2019			81	75					
9/26/2019	126	72							
10/8/2019						172	324	276	
10/9/2019									432
3/17/2020						165	283	185	391
3/18/2020									
3/19/2020									
3/24/2020	91	59	71	76	117				
3/25/2020									

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 11/25/2020 7:46 PM View: Appendix III

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWA-18I (bg)	YGWA-18S (bg)	YGWA-17S (bg)	YGWA-20S (bg)	YGWA-21I (bg)	YGWA-47 (bg)	YGWC-44	GWA-2 (bg)	YGWC-45
7/6/2020									
8/27/2020									
8/28/2020									
9/22/2020						141	294	281	
9/23/2020	103	81	99						404
9/24/2020				69	113				
9/25/2020									

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 11/25/2020 7:46 PM View: Appendix III

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWC-46A	YGWA-2I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWC-52
6/1/2016					
6/2/2016					
6/6/2016					
6/7/2016					
7/25/2016					
7/26/2016					
7/27/2016					
7/28/2016					
8/30/2016					
8/31/2016					
9/1/2016	1240				
9/13/2016					
9/14/2016		152			
9/15/2016					
9/16/2016					
9/19/2016					
11/1/2016					
11/2/2016					
11/3/2016					
11/4/2016		148			
11/14/2016					
11/15/2016					
11/16/2016	1220				
11/28/2016					
12/15/2016		191			
1/10/2017					
1/11/2017					
1/12/2017					
1/13/2017					
1/16/2017		180			
2/21/2017					
2/22/2017					
2/24/2017					
2/27/2017	1060				
2/28/2017					
3/1/2017					
3/2/2017					
3/3/2017		156			
3/6/2017					
3/7/2017					
3/8/2017					
4/26/2017					
4/27/2017					
4/28/2017		130			
5/1/2017					
5/2/2017					
5/8/2017	1160				
5/9/2017					
5/26/2017		223			
6/27/2017					
6/28/2017		166			
6/29/2017					

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 11/25/2020 7:46 PM View: Appendix III

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWC-46A	YGWA-2I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWC-52
6/30/2017					
7/11/2017					
7/13/2017	996				
7/17/2017					
10/3/2017		153			
10/4/2017					
10/5/2017					
10/10/2017					
10/11/2017	835		68		
10/12/2017				74	
10/16/2017					
11/20/2017			139	179	
1/10/2018				140	
1/11/2018			153		
2/19/2018				119	
2/20/2018			87		
4/2/2018					
4/3/2018			85	106	
4/4/2018	1470				
6/5/2018					
6/6/2018					
6/7/2018		146			
6/8/2018					
6/11/2018					
6/28/2018			88	112	
8/6/2018					
8/7/2018			89	103	
9/19/2018	702				
9/24/2018			82	107	
9/25/2018					
9/26/2018					
10/1/2018		155			
10/2/2018					
2/25/2019					
3/26/2019				90	
3/27/2019	641		75		
3/28/2019					
3/29/2019		150			
4/1/2019					
4/2/2019					
4/3/2019					
6/12/2019					
9/24/2019		146			
9/25/2019					
9/26/2019					
10/8/2019					
10/9/2019	809		119	98	
3/17/2020	733				
3/18/2020					
3/19/2020		148			
3/24/2020				84	
3/25/2020			158		

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 11/25/2020 7:46 PM View: Appendix III

Plant Yates Client: Southern Company Data: Yates Ash Pond1

	YGWC-46A	YGWA-2I (bg)	YGWA-39 (bg)	YGWA-40 (bg)	YGWC-52
7/6/2020	793				
8/27/2020					349
8/28/2020	838				
9/22/2020					296
9/23/2020	832	161			
9/24/2020			170	77	
9/25/2020					

FIGURE E.

Appendix III Trend Tests - Prediction Limit Exceedances - Significant Results

Plant Yates Client: Southern Company Data: Yates Ash Pond1 Printed 11/25/2020, 12:09 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Calcium (mg/L)	**YGWA-47 (bg)**	**-2.267**	**-48**	**-38**	**Yes**	**12**	**8.333**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	**YGWA-18S (bg)**	**-0.09147**	**-54**	**-53**	**Yes**	**15**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	**YGWA-21I (bg)**	**1.723**	**59**	**53**	**Yes**	**15**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	**GWA-2 (bg)**	**4.326**	**50**	**43**	**Yes**	**13**	**7.692**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	**YGWA-1D (bg)**	**0.9112**	**54**	**53**	**Yes**	**15**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Chloride (mg/L)	**YGWA-17S (bg)**	**0.1906**	**61**	**53**	**Yes**	**15**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Chloride (mg/L)	**YGWA-20S (bg)**	**0.225**	**65**	**53**	**Yes**	**15**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Chloride (mg/L)	**YGWA-5D (bg)**	**-0.9674**	**-68**	**-53**	**Yes**	**15**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Chloride (mg/L)	**YGWC-46A**	**-2.684**	**-57**	**-48**	**Yes**	**14**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	**YGWA-47 (bg)**	**-26.3**	**-61**	**-38**	**Yes**	**12**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	**YGWA-40 (bg)**	**-13.69**	**-44**	**-38**	**Yes**	**12**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	**YGWA-5D (bg)**	**-4.083**	**-81**	**-53**	**Yes**	**15**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	**YGWA-5I (bg)**	**0.1006**	**59**	**53**	**Yes**	**15**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	**GWA-2 (bg)**	**22.54**	**53**	**43**	**Yes**	**13**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	**YGWA-1D (bg)**	**1.104**	**63**	**53**	**Yes**	**15**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	**YGWC-46A**	**-100.1**	**-59**	**-48**	**Yes**	**14**	**7.143**	**n/a**	**n/a**	**0.01**	**NP**
Total Dissolved Solids (mg/L)	**YGWA-47 (bg)**	**-14.88**	**-44**	**-38**	**Yes**	**12**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Total Dissolved Solids (mg/L)	**YGWA-5D (bg)**	**-16.16**	**-59**	**-53**	**Yes**	**15**	**0**	**n/a**	**n/a**	**0.01**	**NP**

Appendix III Trend Tests - Prediction Limit Exceedances - All Results

Plant Yates Client: Southern Company Data: Yates Ash Pond1 Printed 11/25/2020, 12:09 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	YGWA-47 (bg)	-0.001562	-37	-38	No	12	0	n/a	n/a	0.01	NP
Boron (mg/L)	YGWC-44	-0.0202	-15	-38	No	12	0	n/a	n/a	0.01	NP
Boron (mg/L)	YGWC-45	0.006247	15	38	No	12	0	n/a	n/a	0.01	NP
Boron (mg/L)	YGWA-17S (bg)	-0.0004068	-21	-53	No	15	13.33	n/a	n/a	0.01	NP
Boron (mg/L)	YGWA-18I (bg)	0	-38	-53	No	15	73.33	n/a	n/a	0.01	NP
Boron (mg/L)	YGWA-18S (bg)	-0.0005007	-21	-53	No	15	13.33	n/a	n/a	0.01	NP
Boron (mg/L)	YGWA-20S (bg)	0	-17	-53	No	15	86.67	n/a	n/a	0.01	NP
Boron (mg/L)	YGWA-21I (bg)	-0.006488	-47	-53	No	15	60	n/a	n/a	0.01	NP
Boron (mg/L)	YGWA-39 (bg)	0.003122	11	38	No	12	8.333	n/a	n/a	0.01	NP
Boron (mg/L)	YGWA-40 (bg)	-0.02578	-31	-38	No	12	0	n/a	n/a	0.01	NP
Boron (mg/L)	YGWA-4I (bg)	0	-10	-53	No	15	66.67	n/a	n/a	0.01	NP
Boron (mg/L)	YGWA-5D (bg)	0.0006117	23	53	No	15	13.33	n/a	n/a	0.01	NP
Boron (mg/L)	YGWA-5I (bg)	-0.001168	-43	-53	No	15	60	n/a	n/a	0.01	NP
Boron (mg/L)	GWA-2 (bg)	0	-1	-43	No	13	53.85	n/a	n/a	0.01	NP
Boron (mg/L)	YGWA-14S (bg)	-0.002039	-30	-53	No	15	13.33	n/a	n/a	0.01	NP
Boron (mg/L)	YGWA-1D (bg)	-0.0002466	-14	-53	No	15	20	n/a	n/a	0.01	NP
Boron (mg/L)	YGWA-1I (bg)	0	-28	-53	No	15	66.67	n/a	n/a	0.01	NP
Boron (mg/L)	YGWA-2I (bg)	0	-22	-53	No	15	73.33	n/a	n/a	0.01	NP
Boron (mg/L)	YGWA-30I (bg)	0	-31	-53	No	15	80	n/a	n/a	0.01	NP
Boron (mg/L)	YGWA-3D (bg)	0	-15	-53	No	15	53.33	n/a	n/a	0.01	NP
Boron (mg/L)	YGWA-3I (bg)	0	-25	-53	No	15	86.67	n/a	n/a	0.01	NP
Boron (mg/L)	YGWC-46A	-0.0351	-11	-48	No	14	0	n/a	n/a	0.01	NP
Calcium (mg/L)	**YGWA-47 (bg)**	**-2.267**	**-48**	**-38**	**Yes**	**12**	**8.333**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	YGWC-45	-0.1857	-6	-38	No	12	0	n/a	n/a	0.01	NP
Calcium (mg/L)	YGWA-17S (bg)	0.1212	51	53	No	15	0	n/a	n/a	0.01	NP
Calcium (mg/L)	YGWA-18I (bg)	0.02072	8	53	No	15	0	n/a	n/a	0.01	NP
Calcium (mg/L)	**YGWA-18S (bg)**	**-0.09147**	**-54**	**-53**	**Yes**	**15**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	YGWA-20S (bg)	0.1176	52	53	No	15	0	n/a	n/a	0.01	NP
Calcium (mg/L)	**YGWA-21I (bg)**	**1.723**	**59**	**53**	**Yes**	**15**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	YGWA-39 (bg)	0.05098	1	38	No	12	0	n/a	n/a	0.01	NP
Calcium (mg/L)	YGWA-40 (bg)	-1.15	-37	-38	No	12	8.333	n/a	n/a	0.01	NP
Calcium (mg/L)	YGWA-4I (bg)	0.4056	50	53	No	15	0	n/a	n/a	0.01	NP
Calcium (mg/L)	YGWA-5D (bg)	-2.054	-47	-53	No	15	0	n/a	n/a	0.01	NP
Calcium (mg/L)	YGWA-5I (bg)	0.08295	38	53	No	15	0	n/a	n/a	0.01	NP
Calcium (mg/L)	**GWA-2 (bg)**	**4.326**	**50**	**43**	**Yes**	**13**	**7.692**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	YGWA-14S (bg)	-0.0442	-47	-53	No	15	0	n/a	n/a	0.01	NP
Calcium (mg/L)	**YGWA-1D (bg)**	**0.9112**	**54**	**53**	**Yes**	**15**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	YGWA-1I (bg)	-0.1082	-50	-53	No	15	0	n/a	n/a	0.01	NP
Calcium (mg/L)	YGWA-2I (bg)	0.7549	37	53	No	15	0	n/a	n/a	0.01	NP
Calcium (mg/L)	YGWA-30I (bg)	-0.01026	-12	-53	No	15	0	n/a	n/a	0.01	NP
Calcium (mg/L)	YGWA-3D (bg)	0.9217	40	53	No	15	0	n/a	n/a	0.01	NP
Calcium (mg/L)	YGWA-3I (bg)	0.6083	28	53	No	15	0	n/a	n/a	0.01	NP
Calcium (mg/L)	YGWC-46A	-0.5712	-7	-48	No	14	0	n/a	n/a	0.01	NP
Calcium (mg/L)	YGWC-52	16.85	NaN	NaN	No	2	0	n/a	n/a	NaN	NP
Chloride (mg/L)	YGWA-47 (bg)	-0.504	-33	-38	No	12	0	n/a	n/a	0.01	NP
Chloride (mg/L)	YGWC-44	0.3951	37	38	No	12	0	n/a	n/a	0.01	NP
Chloride (mg/L)	**YGWA-17S (bg)**	**0.1906**	**61**	**53**	**Yes**	**15**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Chloride (mg/L)	YGWA-18I (bg)	0.06048	32	53	No	15	0	n/a	n/a	0.01	NP
Chloride (mg/L)	YGWA-18S (bg)	0.2113	40	53	No	15	0	n/a	n/a	0.01	NP
Chloride (mg/L)	**YGWA-20S (bg)**	**0.225**	**65**	**53**	**Yes**	**15**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Chloride (mg/L)	YGWA-21I (bg)	-0.06716	-15	-53	No	15	0	n/a	n/a	0.01	NP
Chloride (mg/L)	YGWA-39 (bg)	0.02132	1	38	No	12	0	n/a	n/a	0.01	NP
Chloride (mg/L)	YGWA-40 (bg)	0.2281	23	38	No	12	0	n/a	n/a	0.01	NP
Chloride (mg/L)	YGWA-4I (bg)	0.1431	41	53	No	15	0	n/a	n/a	0.01	NP
Chloride (mg/L)	**YGWA-5D (bg)**	**-0.9674**	**-68**	**-53**	**Yes**	**15**	**0**	**n/a**	**n/a**	**0.01**	**NP**

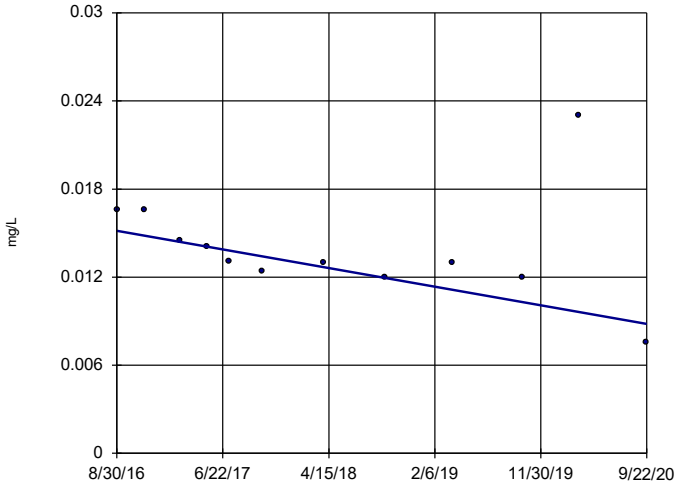
Appendix III Trend Tests - Prediction Limit Exceedances - All Results

Plant Yates Client: Southern Company Data: Yates Ash Pond1 Printed 11/25/2020, 12:09 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Chloride (mg/L)	YGWA-5I (bg)	0	1	53	No	15	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GWA-2 (bg)	0.1924	33	43	No	13	0	n/a	n/a	0.01	NP
Chloride (mg/L)	YGWA-14S (bg)	0.1026	20	53	No	15	0	n/a	n/a	0.01	NP
Chloride (mg/L)	YGWA-1D (bg)	0	-25	-53	No	15	0	n/a	n/a	0.01	NP
Chloride (mg/L)	YGWA-1I (bg)	0	-19	-53	No	15	0	n/a	n/a	0.01	NP
Chloride (mg/L)	YGWA-2I (bg)	-0.04955	-30	-53	No	15	0	n/a	n/a	0.01	NP
Chloride (mg/L)	YGWA-30I (bg)	0	-10	-53	No	15	0	n/a	n/a	0.01	NP
Chloride (mg/L)	YGWA-3D (bg)	-0.06957	-46	-53	No	15	0	n/a	n/a	0.01	NP
Chloride (mg/L)	YGWA-3I (bg)	-0.05476	-51	-53	No	15	0	n/a	n/a	0.01	NP
Chloride (mg/L)	**YGWC-46A**	**-2.684**	**-57**	**-48**	**Yes**	**14**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	**YGWA-47 (bg)**	**-26.3**	**-61**	**-38**	**Yes**	**12**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	YGWC-45	-5.424	-31	-38	No	12	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	YGWA-17S (bg)	0.1628	49	53	No	15	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	YGWA-18I (bg)	-0.2596	-42	-53	No	15	20	n/a	n/a	0.01	NP
Sulfate (mg/L)	YGWA-18S (bg)	-0.2017	-42	-53	No	15	13.33	n/a	n/a	0.01	NP
Sulfate (mg/L)	YGWA-20S (bg)	0	18	53	No	15	60	n/a	n/a	0.01	NP
Sulfate (mg/L)	YGWA-21I (bg)	-0.3604	-21	-53	No	15	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	YGWA-39 (bg)	-4.02	-38	-38	No	12	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	**YGWA-40 (bg)**	**-13.69**	**-44**	**-38**	**Yes**	**12**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	YGWA-4I (bg)	0.2408	50	53	No	15	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	**YGWA-5D (bg)**	**-4.083**	**-81**	**-53**	**Yes**	**15**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	**YGWA-5I (bg)**	**0.1006**	**59**	**53**	**Yes**	**15**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	**GWA-2 (bg)**	**22.54**	**53**	**43**	**Yes**	**13**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	YGWA-14S (bg)	0.1735	30	53	No	15	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	**YGWA-1D (bg)**	**1.104**	**63**	**53**	**Yes**	**15**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	YGWA-1I (bg)	-0.3029	-21	-53	No	15	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	YGWA-2I (bg)	0.142	8	53	No	15	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	YGWA-30I (bg)	-0.09481	-21	-53	No	15	13.33	n/a	n/a	0.01	NP
Sulfate (mg/L)	YGWA-3D (bg)	0.6124	52	53	No	15	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	YGWA-3I (bg)	1.18	45	53	No	15	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	**YGWC-46A**	**-100.1**	**-59**	**-48**	**Yes**	**14**	**7.143**	**n/a**	**n/a**	**0.01**	**NP**
Total Dissolved Solids (mg/L)	**YGWA-47 (bg)**	**-14.88**	**-44**	**-38**	**Yes**	**12**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Total Dissolved Solids (mg/L)	YGWC-44	-12.88	-32	-38	No	12	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	YGWC-45	-1.25	-2	-38	No	12	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	YGWA-17S (bg)	6.577	31	53	No	15	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	YGWA-18I (bg)	-1.862	-14	-53	No	15	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	YGWA-18S (bg)	7.897	34	53	No	15	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	YGWA-20S (bg)	5.975	37	53	No	15	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	YGWA-21I (bg)	22.56	45	53	No	15	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	YGWA-39 (bg)	12.16	18	38	No	12	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	YGWA-40 (bg)	-16.26	-36	-38	No	12	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	YGWA-4I (bg)	4.95	19	53	No	15	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	**YGWA-5D (bg)**	**-16.16**	**-59**	**-53**	**Yes**	**15**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Total Dissolved Solids (mg/L)	YGWA-5I (bg)	0.4969	6	53	No	15	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	GWA-2 (bg)	21.56	27	43	No	13	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	YGWA-14S (bg)	0.8555	9	53	No	15	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	YGWA-1D (bg)	3.318	18	53	No	15	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	YGWA-1I (bg)	-3.416	-17	-53	No	15	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	YGWA-2I (bg)	-2.032	-19	-53	No	15	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	YGWA-30I (bg)	3.476	28	53	No	15	13.33	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	YGWA-3D (bg)	4.214	19	53	No	15	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	YGWA-3I (bg)	2.713	14	53	No	15	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	YGWC-46A	-100.7	-41	-48	No	14	0	n/a	n/a	0.01	NP
Total Dissolved Solids (mg/L)	YGWC-52	-744	NaN	NaN	No	2	0	n/a	n/a	NaN	NP

Sen's Slope Estimator

YGWA-47 (bg)



n = 12

Slope = -0.001562 units per year.

Mann-Kendall statistic = -37 critical = -38

Trend not significant at 99% confidence level (α = 0.005 per tail).

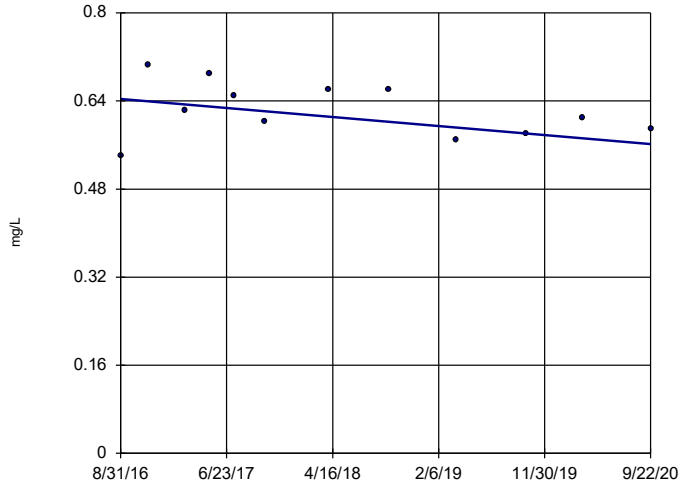
Constituent: Boron Analysis Run 11/25/2020 12:06 PM View: Trend Tests

Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

YGWC-44



n = 12

Slope = -0.0202 units per year.

Mann-Kendall statistic = -15 critical = -38

Trend not significant at 99% confidence level (α = 0.005 per tail).

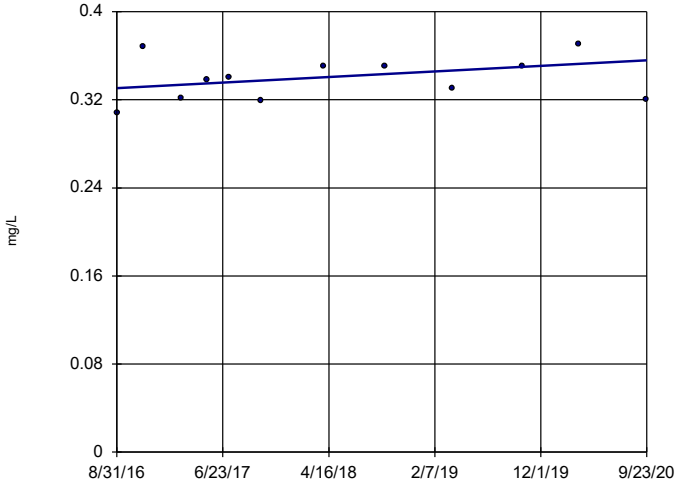
Constituent: Boron Analysis Run 11/25/2020 12:06 PM View: Trend Tests

Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

YGWC-45



n = 12

Slope = 0.006247 units per year.

Mann-Kendall statistic = 15 critical = 38

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Boron Analysis Run 11/25/2020 12:06 PM View: Trend Tests

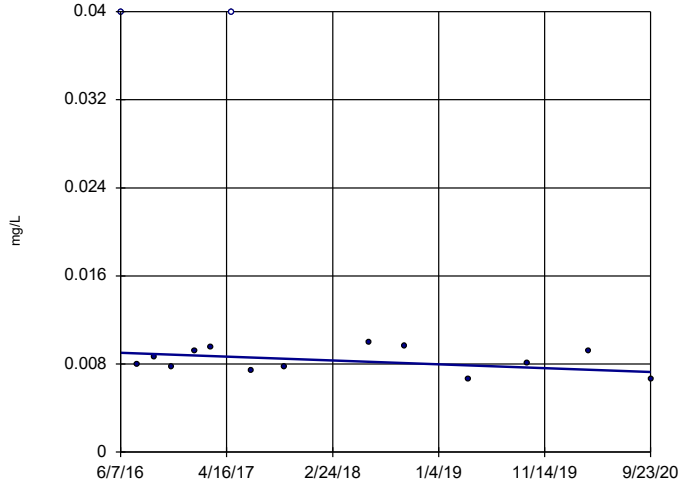
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Hollow symbols indicate censored values.

Sen's Slope Estimator

YGWA-17S (bg)



n = 15

Slope = -0.0004068 units per year.

Mann-Kendall statistic = -21 critical = -53

Trend not significant at 99% confidence level (α = 0.005 per tail).

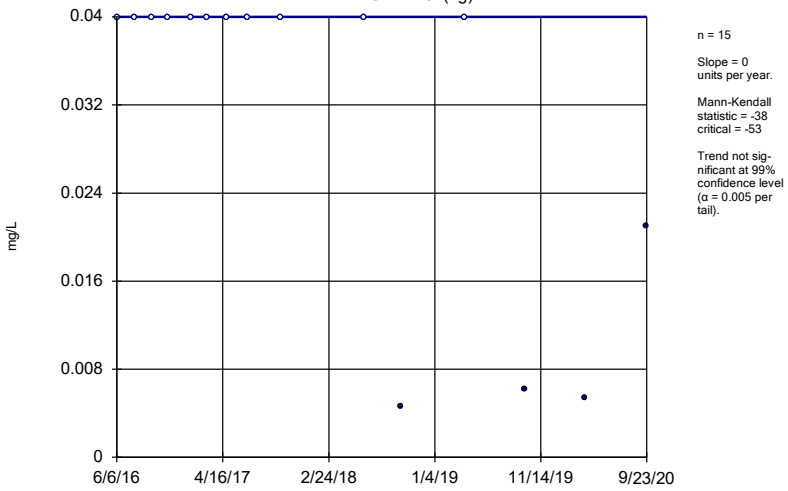
Constituent: Boron Analysis Run 11/25/2020 12:06 PM View: Trend Tests

Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

YGWA-18I (bg)



n = 15

Slope = 0 units per year.

Mann-Kendall statistic = -38
critical = -53

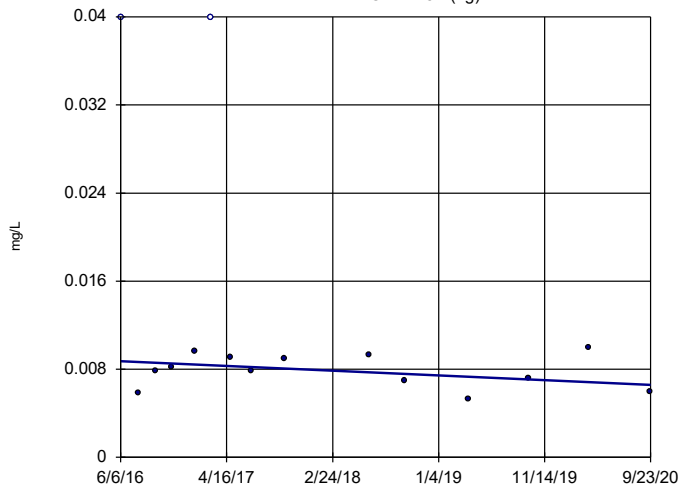
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Boron Analysis Run 11/25/2020 12:06 PM View: Trend Tests
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

YGWA-18S (bg)



n = 15

Slope = -0.0005007 units per year.

Mann-Kendall statistic = -21
critical = -53

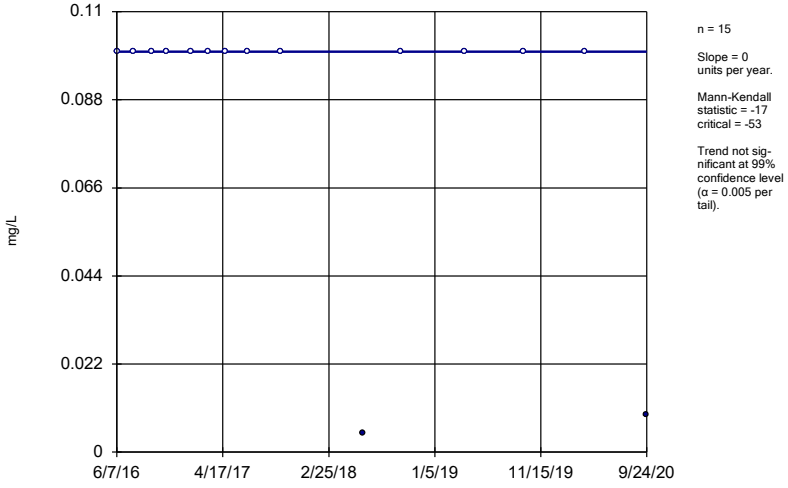
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Boron Analysis Run 11/25/2020 12:06 PM View: Trend Tests
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

YGWA-20S (bg)



n = 15

Slope = 0 units per year.

Mann-Kendall statistic = -17
critical = -53

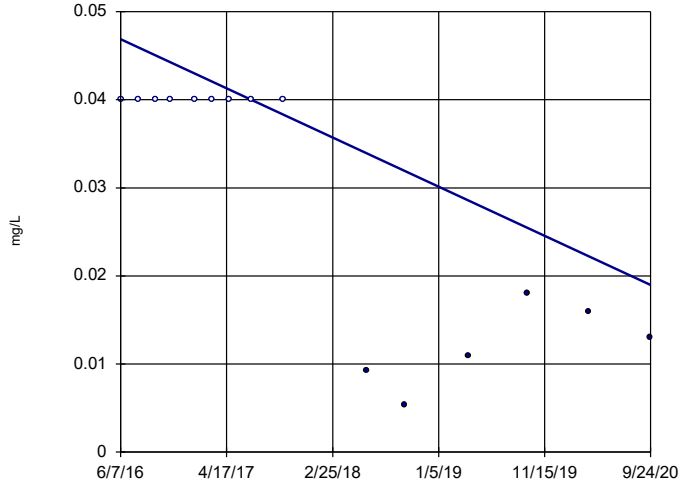
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Boron Analysis Run 11/25/2020 12:06 PM View: Trend Tests
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

YGWA-21I (bg)



n = 15

Slope = -0.006488 units per year.

Mann-Kendall statistic = -47
critical = -53

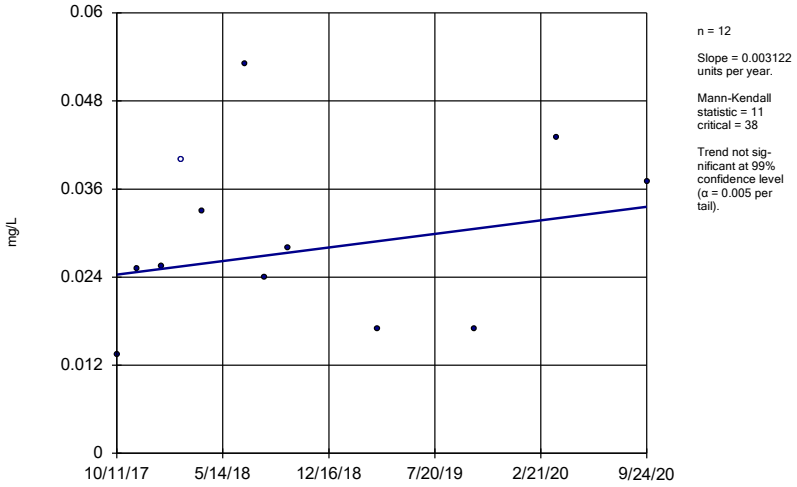
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Boron Analysis Run 11/25/2020 12:06 PM View: Trend Tests
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

YGWA-39 (bg)



n = 12

Slope = 0.003122 units per year.

Mann-Kendall statistic = 11
critical = 38

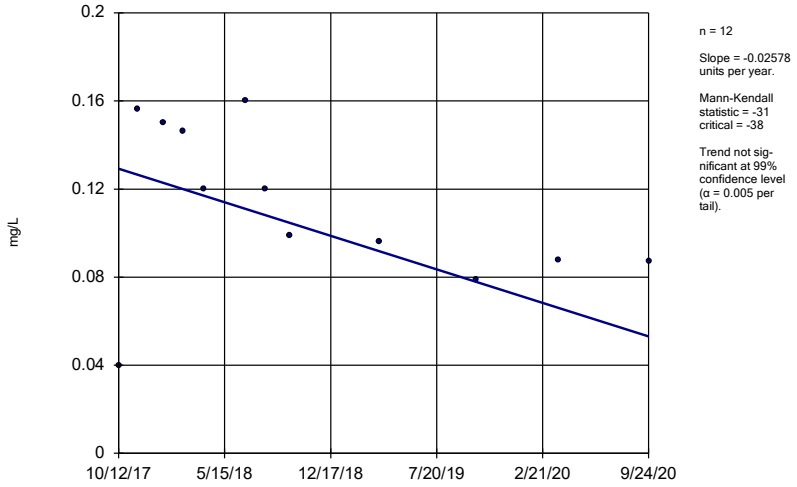
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Boron Analysis Run 11/25/2020 12:06 PM View: Trend Tests
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

YGWA-40 (bg)



n = 12

Slope = -0.02578 units per year.

Mann-Kendall statistic = -31
critical = -38

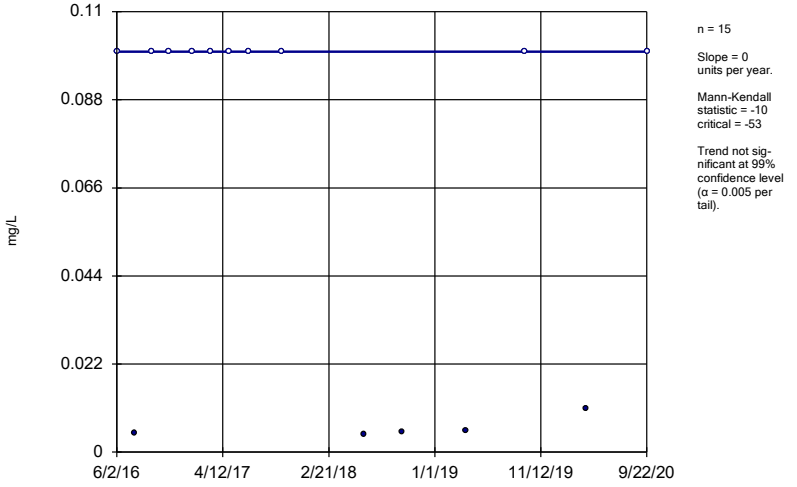
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Boron Analysis Run 11/25/2020 12:06 PM View: Trend Tests
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

YGWA-4I (bg)



n = 15

Slope = 0 units per year.

Mann-Kendall statistic = -10
critical = -53

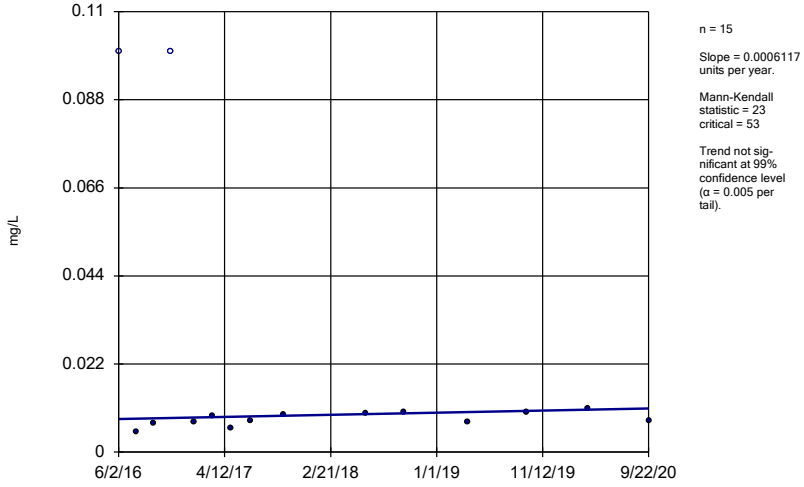
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Boron Analysis Run 11/25/2020 12:06 PM View: Trend Tests
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

YGWA-5D (bg)



n = 15

Slope = 0.0006117 units per year.

Mann-Kendall statistic = 23
critical = 53

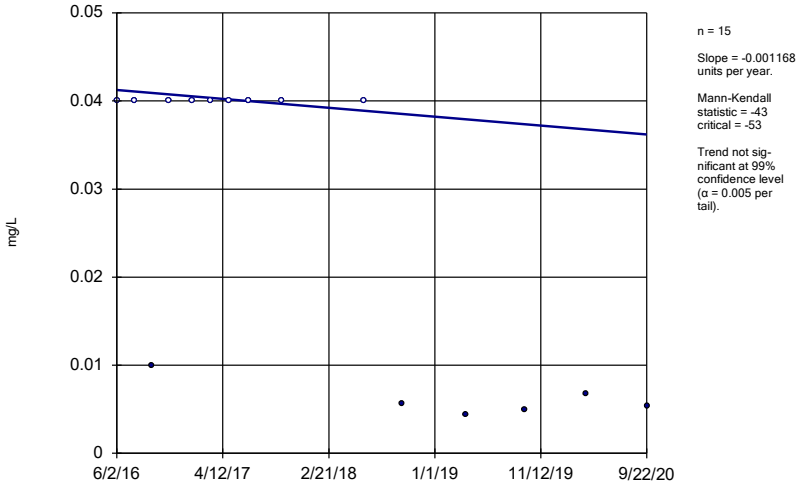
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Boron Analysis Run 11/25/2020 12:06 PM View: Trend Tests
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

YGWA-5I (bg)



n = 15

Slope = -0.001168 units per year.

Mann-Kendall statistic = -43
critical = -53

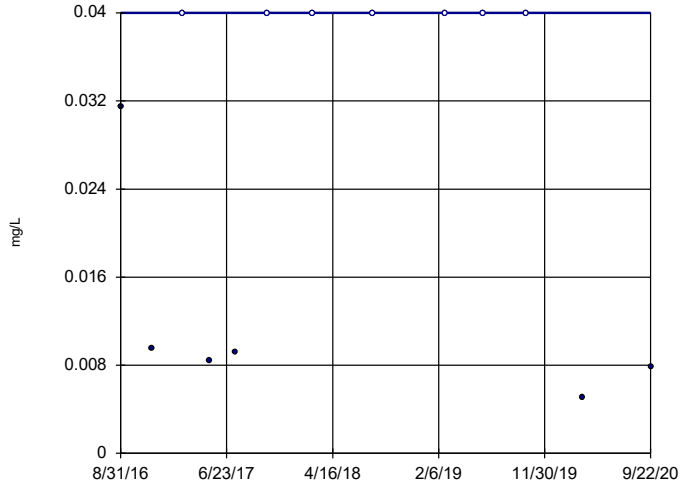
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Boron Analysis Run 11/25/2020 12:06 PM View: Trend Tests
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

GWA-2 (bg)



n = 13

Slope = 0 units per year.

Mann-Kendall statistic = -1
critical = -43

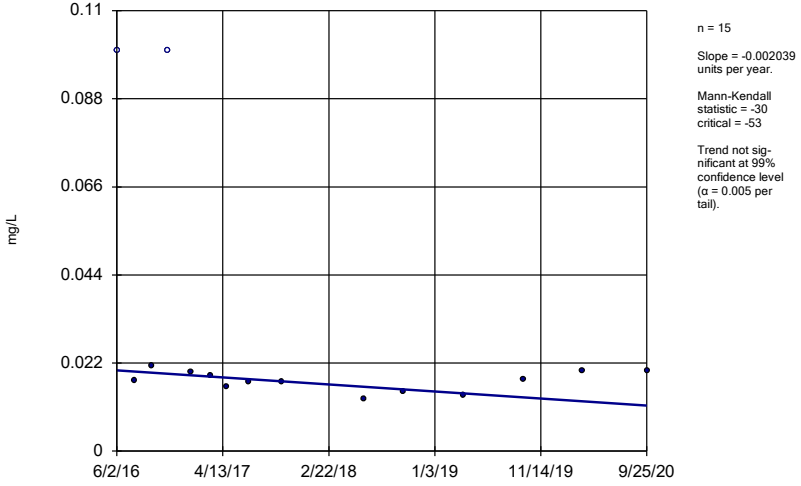
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Boron Analysis Run 11/25/2020 12:06 PM View: Trend Tests
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

YGWA-14S (bg)



n = 15

Slope = -0.002039 units per year.

Mann-Kendall statistic = -30
critical = -53

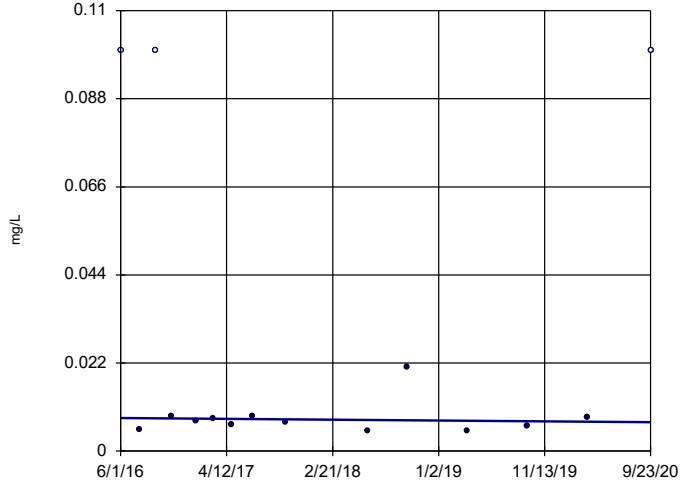
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Boron Analysis Run 11/25/2020 12:06 PM View: Trend Tests
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

YGWA-1D (bg)



n = 15

Slope = -0.0002466 units per year.

Mann-Kendall statistic = -14
critical = -53

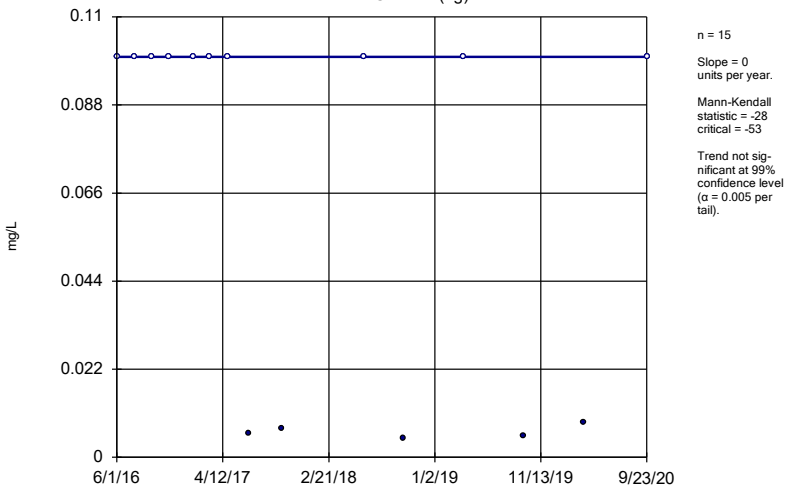
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Boron Analysis Run 11/25/2020 12:06 PM View: Trend Tests
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

YGWA-1I (bg)



n = 15

Slope = 0 units per year.

Mann-Kendall statistic = -28
critical = -53

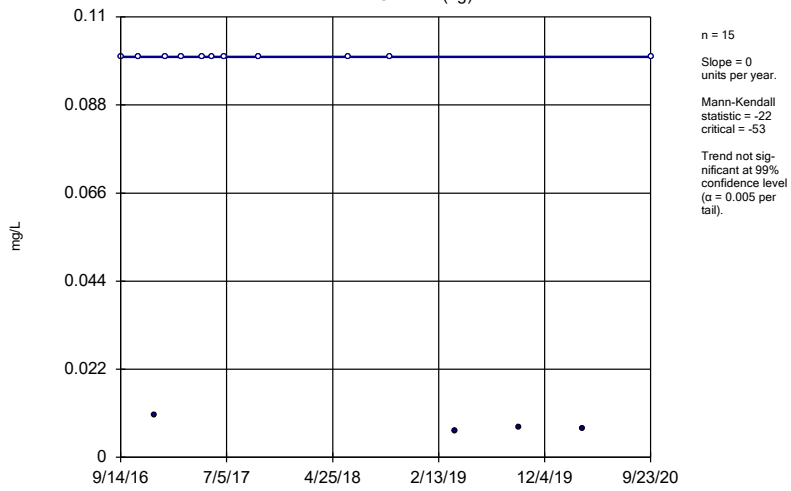
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Boron Analysis Run 11/25/2020 12:06 PM View: Trend Tests
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

YGWA-2I (bg)



n = 15

Slope = 0 units per year.

Mann-Kendall statistic = -22
critical = -53

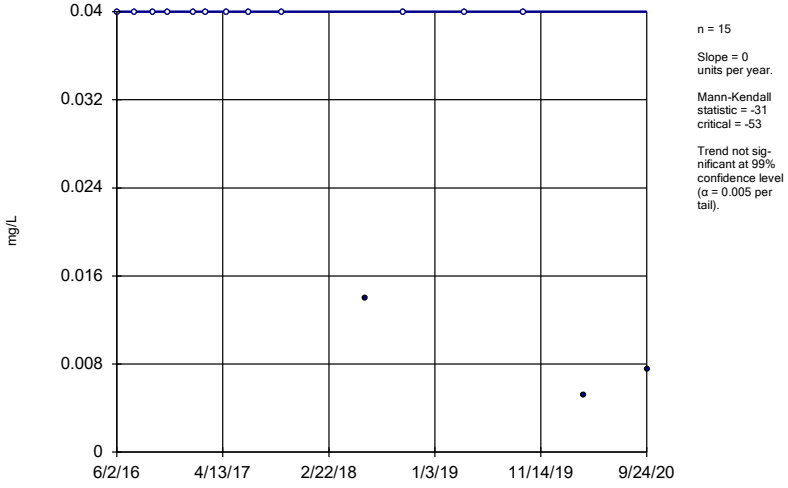
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Boron Analysis Run 11/25/2020 12:06 PM View: Trend Tests
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

YGWA-30I (bg)



n = 15

Slope = 0 units per year.

Mann-Kendall statistic = -31
critical = -53

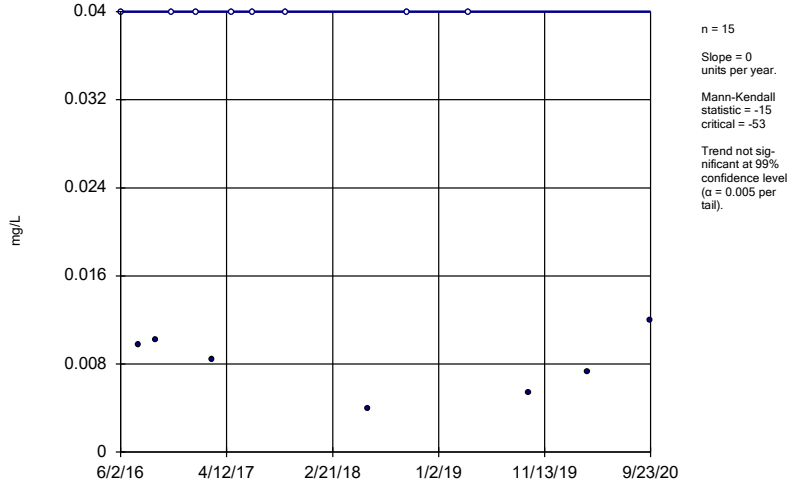
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Boron Analysis Run 11/25/2020 12:06 PM View: Trend Tests
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

YGWA-3D (bg)



n = 15

Slope = 0 units per year.

Mann-Kendall statistic = -15
critical = -53

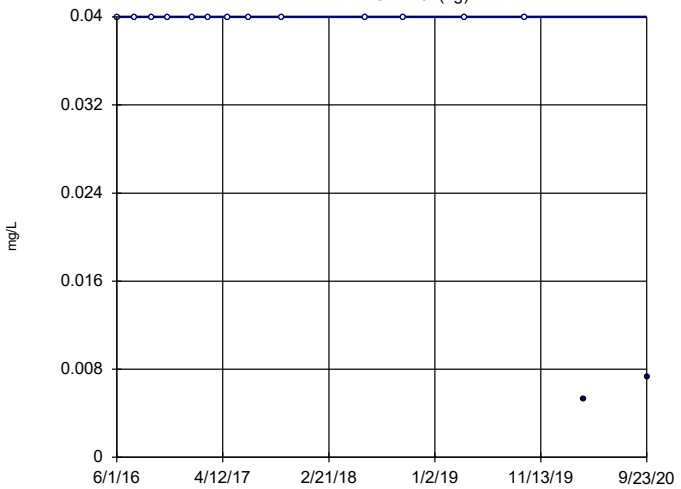
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Boron Analysis Run 11/25/2020 12:06 PM View: Trend Tests
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

YGWA-3I (bg)



n = 15

Slope = 0 units per year.

Mann-Kendall statistic = -25
critical = -53

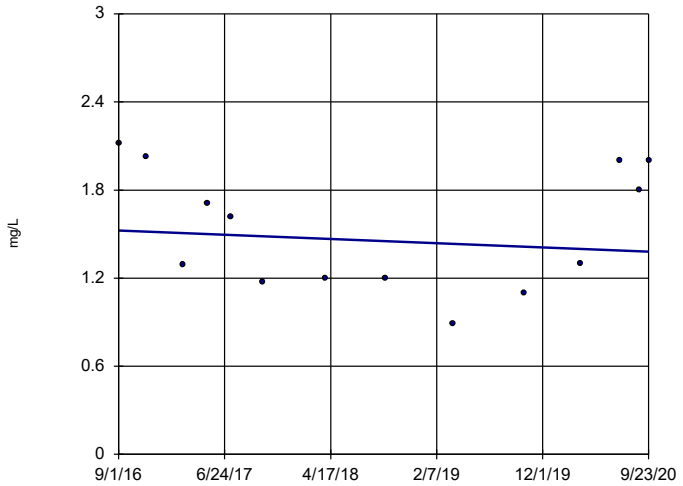
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Boron Analysis Run 11/25/2020 12:06 PM View: Trend Tests
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

YGWC-46A



n = 14

Slope = -0.0351 units per year.

Mann-Kendall statistic = -11
critical = -48

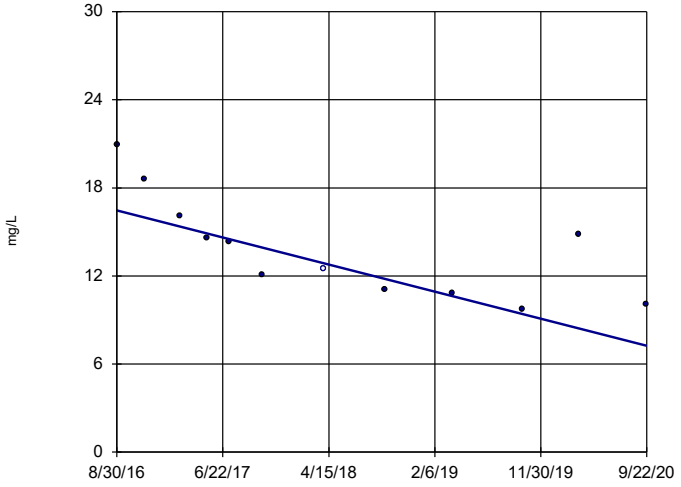
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Boron Analysis Run 11/25/2020 12:06 PM View: Trend Tests
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

YGWA-47 (bg)



n = 12

Slope = -2.267 units per year.

Mann-Kendall statistic = -48
critical = -38

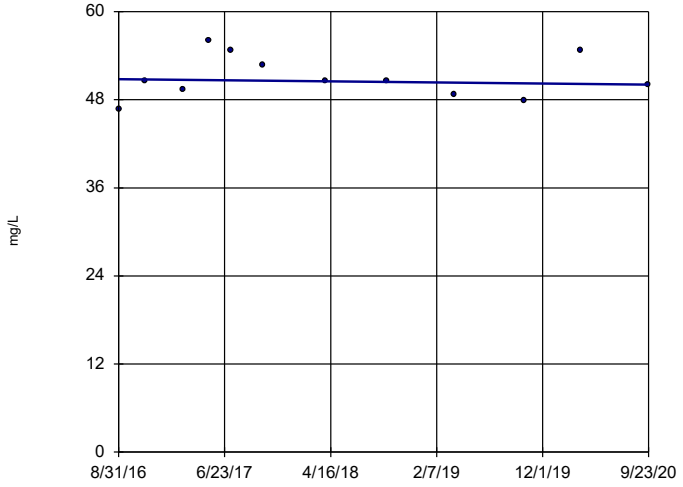
Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Calcium Analysis Run 11/25/2020 12:06 PM View: Trend Tests
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

YGWC-45



n = 12

Slope = -0.1857 units per year.

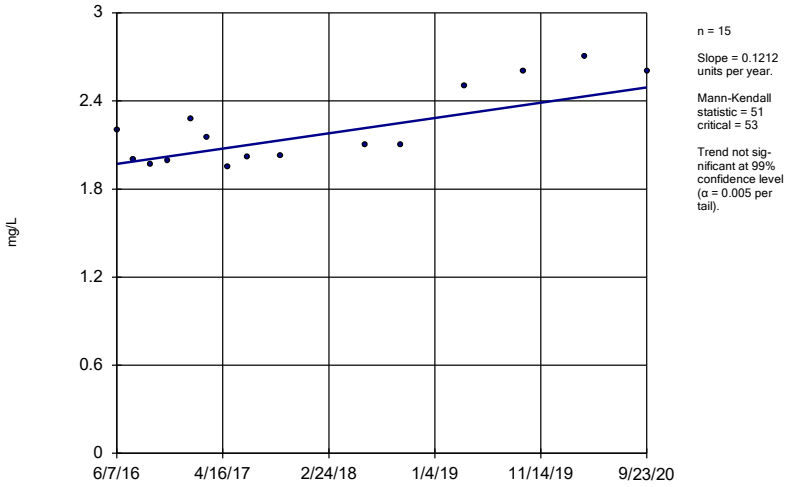
Mann-Kendall statistic = -6
critical = -38

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Calcium Analysis Run 11/25/2020 12:06 PM View: Trend Tests
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sen's Slope Estimator

YGWA-17S (bg)



n = 15

Slope = 0.1212 units per year.

Mann-Kendall statistic = 51
critical = 53

Trend not significant at 99% confidence level (α = 0.005 per tail).

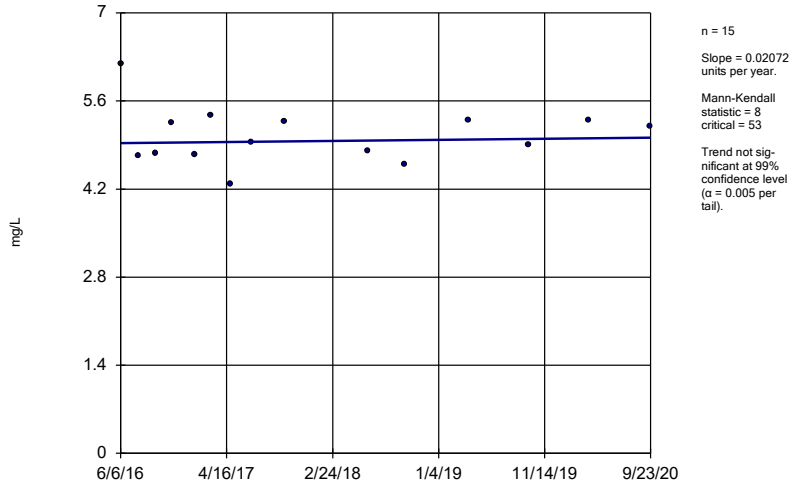
Constituent: Calcium Analysis Run 11/25/2020 12:06 PM View: Trend Tests

Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

YGWA-18I (bg)



n = 15

Slope = 0.02072 units per year.

Mann-Kendall statistic = 8
critical = 53

Trend not significant at 99% confidence level (α = 0.005 per tail).

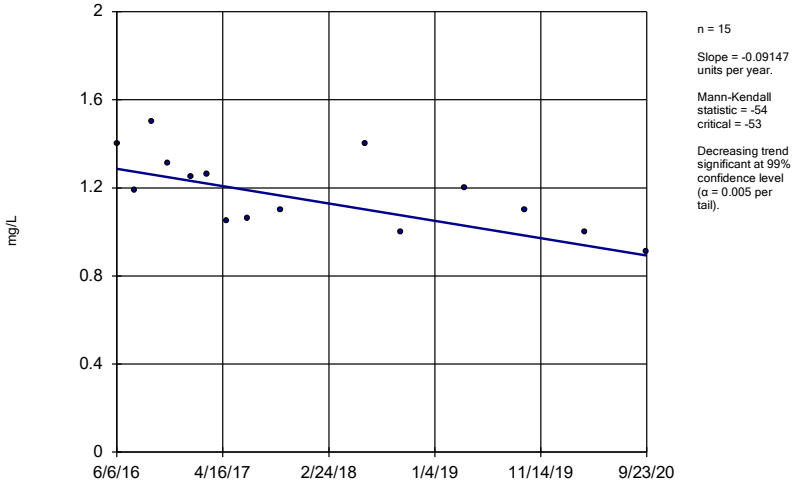
Constituent: Calcium Analysis Run 11/25/2020 12:06 PM View: Trend Tests

Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

YGWA-18S (bg)



n = 15

Slope = -0.09147 units per year.

Mann-Kendall statistic = -54
critical = -53

Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

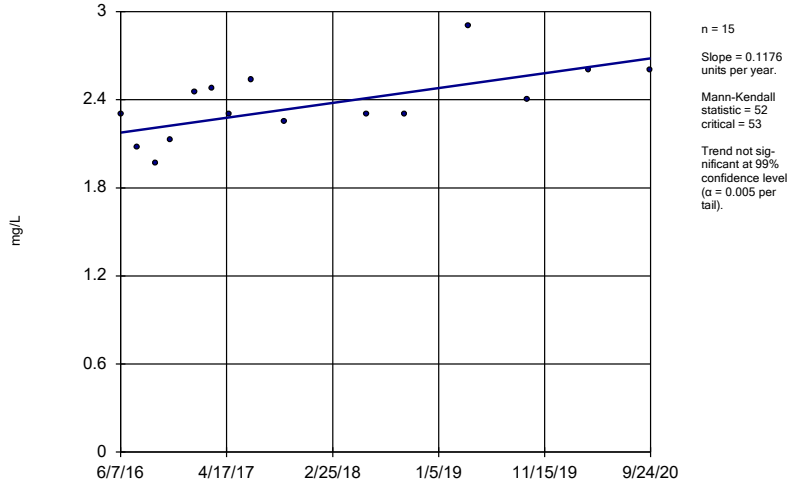
Constituent: Calcium Analysis Run 11/25/2020 12:06 PM View: Trend Tests

Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

YGWA-20S (bg)



n = 15

Slope = 0.1176 units per year.

Mann-Kendall statistic = 52
critical = 53

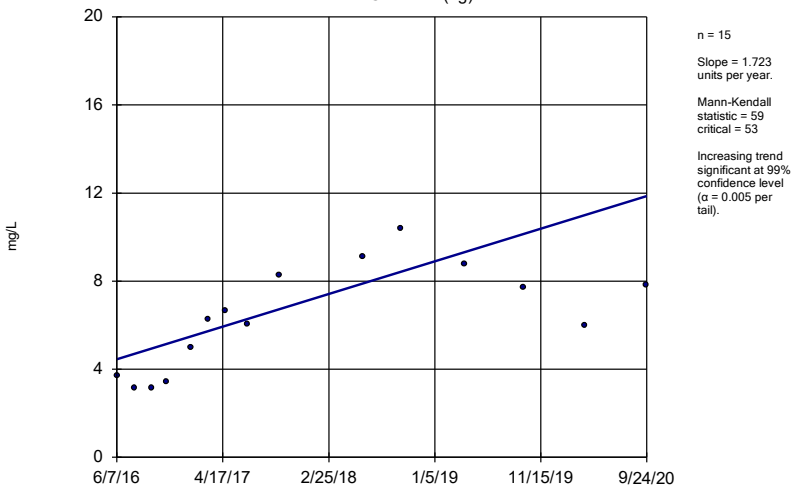
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Calcium Analysis Run 11/25/2020 12:06 PM View: Trend Tests

Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sen's Slope Estimator

YGWA-21I (bg)



n = 15

Slope = 1.723 units per year.

Mann-Kendall statistic = 59 critical = 53

Increasing trend significant at 99% confidence level (α = 0.005 per tail).

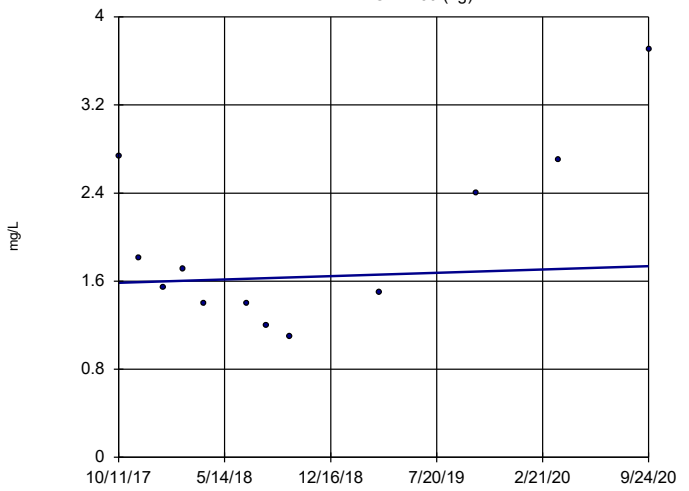
Constituent: Calcium Analysis Run 11/25/2020 12:06 PM View: Trend Tests

Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

YGWA-39 (bg)



n = 12

Slope = 0.05098 units per year.

Mann-Kendall statistic = 1 critical = 38

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Calcium Analysis Run 11/25/2020 12:06 PM View: Trend Tests

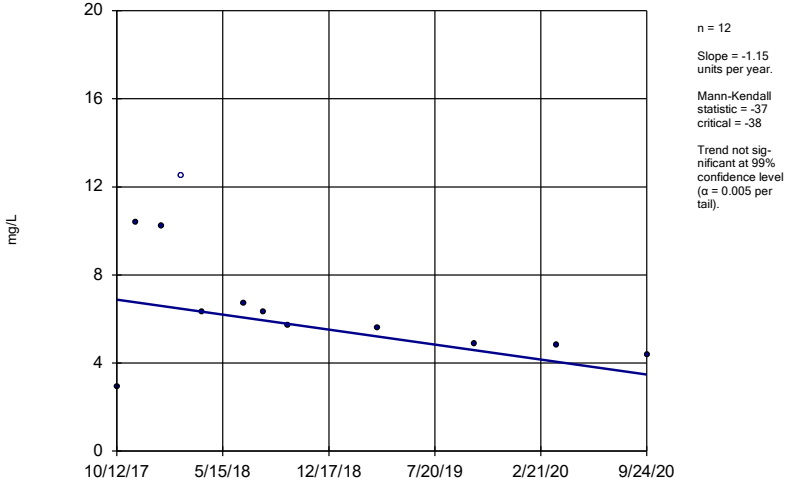
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Hollow symbols indicate censored values.

Sen's Slope Estimator

YGWA-40 (bg)



n = 12

Slope = -1.15 units per year.

Mann-Kendall statistic = -37 critical = -38

Trend not significant at 99% confidence level (α = 0.005 per tail).

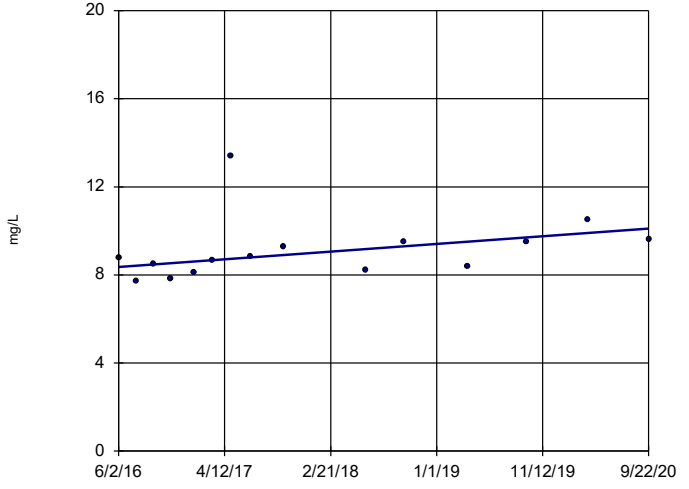
Constituent: Calcium Analysis Run 11/25/2020 12:06 PM View: Trend Tests

Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

YGWA-4I (bg)



n = 15

Slope = 0.4056 units per year.

Mann-Kendall statistic = 50 critical = 53

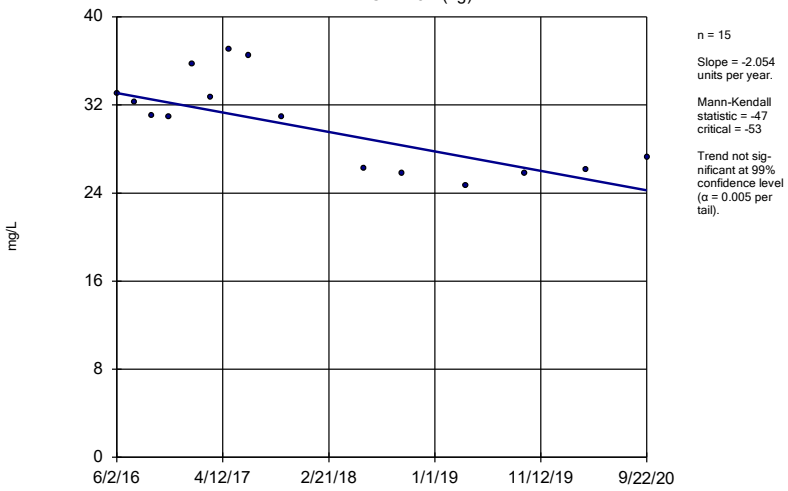
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Calcium Analysis Run 11/25/2020 12:06 PM View: Trend Tests

Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sen's Slope Estimator

YGWA-5D (bg)



n = 15

Slope = -2.054 units per year.

Mann-Kendall statistic = -47
critical = -53

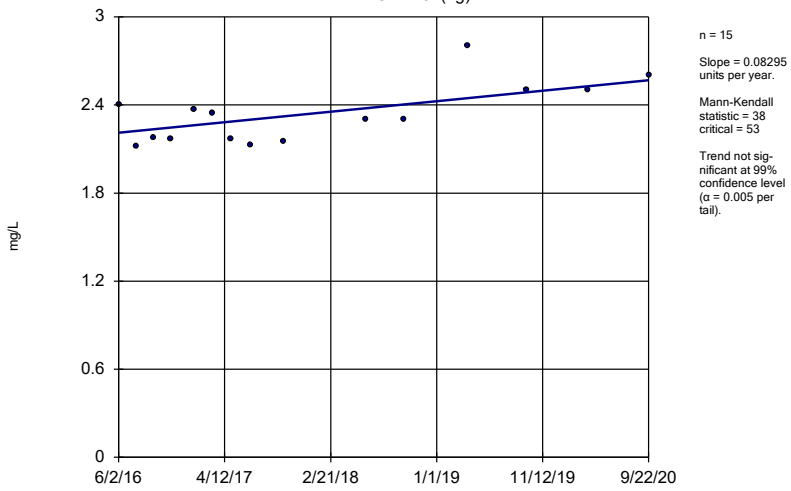
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Calcium Analysis Run 11/25/2020 12:06 PM View: Trend Tests

Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sen's Slope Estimator

YGWA-5I (bg)



n = 15

Slope = 0.08295 units per year.

Mann-Kendall statistic = 38
critical = 53

Trend not significant at 99% confidence level (α = 0.005 per tail).

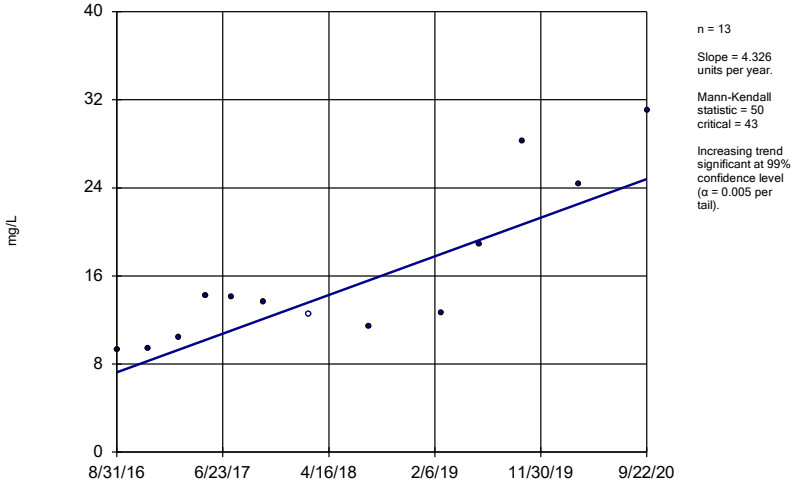
Constituent: Calcium Analysis Run 11/25/2020 12:06 PM View: Trend Tests

Plant Yates Client: Southern Company Data: Yates Ash Pond1

Hollow symbols indicate censored values.

Sen's Slope Estimator

GWA-2 (bg)



n = 13

Slope = 4.326 units per year.

Mann-Kendall statistic = 50
critical = 43

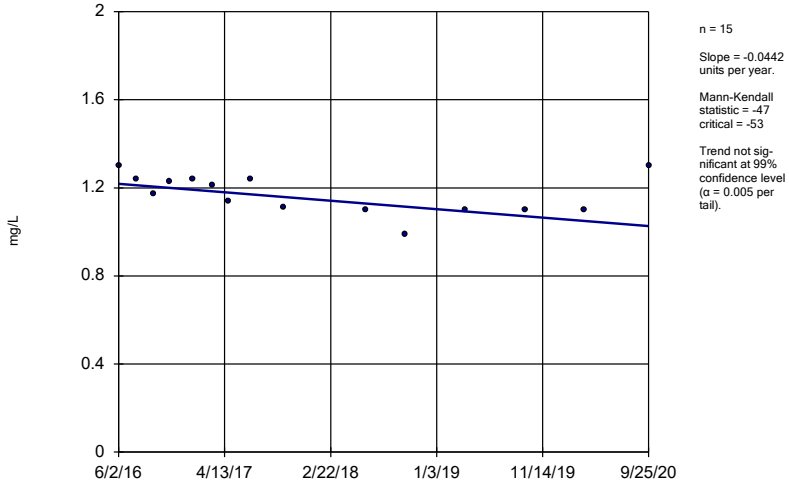
Increasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Calcium Analysis Run 11/25/2020 12:06 PM View: Trend Tests

Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sen's Slope Estimator

YGWA-14S (bg)



n = 15

Slope = -0.0442 units per year.

Mann-Kendall statistic = -47
critical = -53

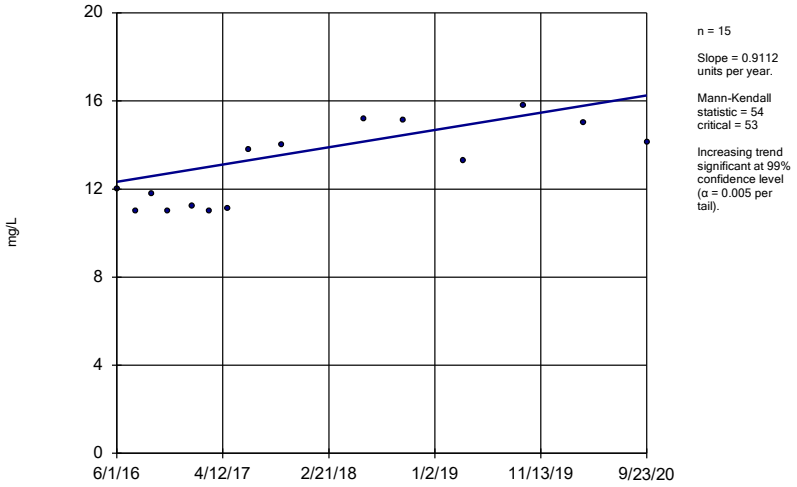
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Calcium Analysis Run 11/25/2020 12:06 PM View: Trend Tests

Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sen's Slope Estimator

YGWA-1D (bg)



n = 15

Slope = 0.9112 units per year.

Mann-Kendall statistic = 54 critical = 53

Increasing trend significant at 99% confidence level (α = 0.005 per tail).

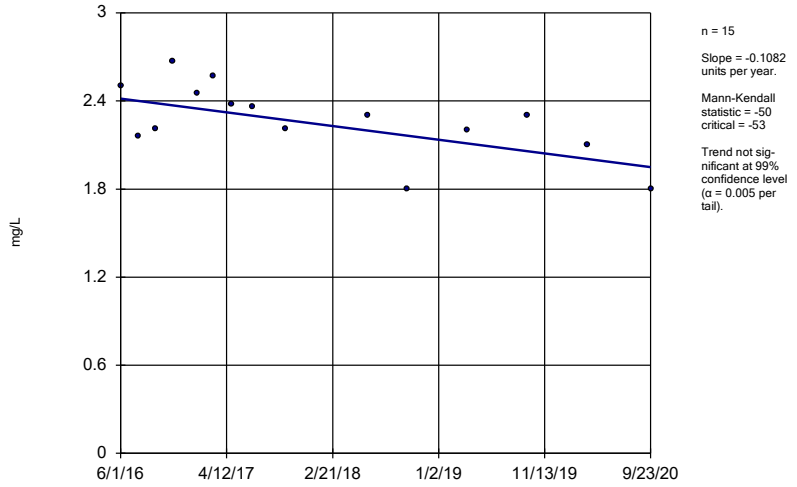
Constituent: Calcium Analysis Run 11/25/2020 12:06 PM View: Trend Tests

Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

YGWA-1I (bg)



n = 15

Slope = -0.1082 units per year.

Mann-Kendall statistic = -50 critical = -53

Trend not significant at 99% confidence level (α = 0.005 per tail).

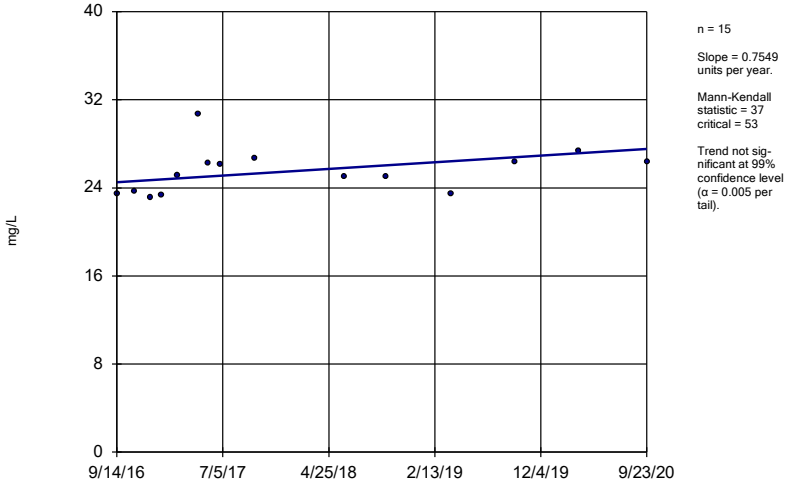
Constituent: Calcium Analysis Run 11/25/2020 12:06 PM View: Trend Tests

Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

YGWA-2I (bg)



n = 15

Slope = 0.7549 units per year.

Mann-Kendall statistic = 37 critical = 53

Trend not significant at 99% confidence level (α = 0.005 per tail).

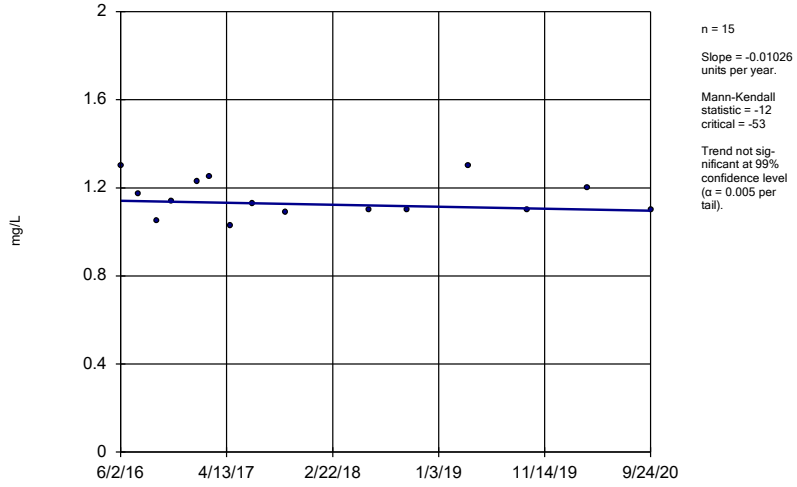
Constituent: Calcium Analysis Run 11/25/2020 12:06 PM View: Trend Tests

Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

YGWA-30I (bg)



n = 15

Slope = -0.01026 units per year.

Mann-Kendall statistic = -12 critical = -53

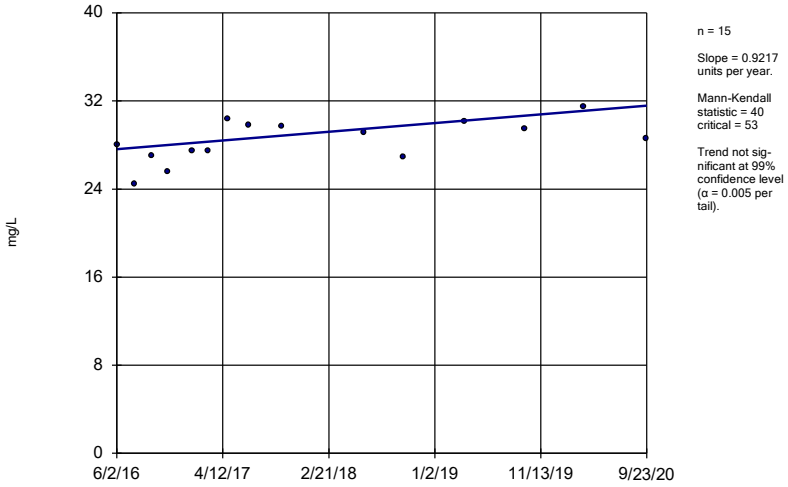
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Calcium Analysis Run 11/25/2020 12:06 PM View: Trend Tests

Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sen's Slope Estimator

YGWA-3D (bg)



n = 15

Slope = 0.9217 units per year.

Mann-Kendall statistic = 40 critical = 53

Trend not significant at 99% confidence level (α = 0.005 per tail).

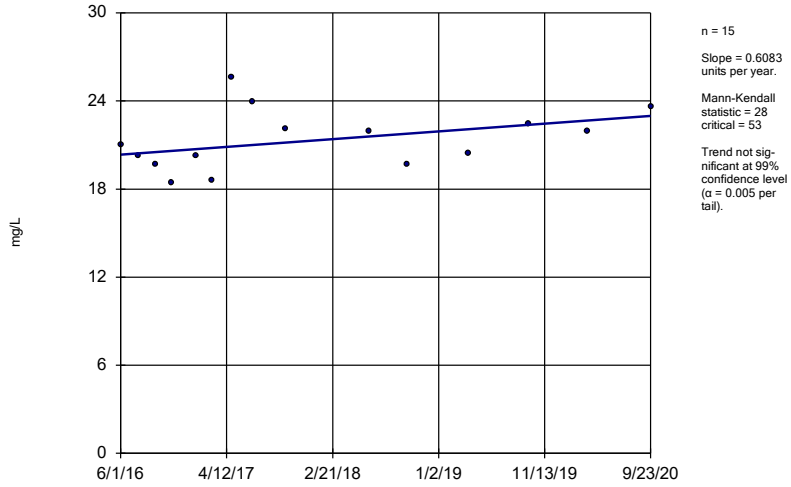
Constituent: Calcium Analysis Run 11/25/2020 12:06 PM View: Trend Tests

Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

YGWA-3I (bg)



n = 15

Slope = 0.6083 units per year.

Mann-Kendall statistic = 28 critical = 53

Trend not significant at 99% confidence level (α = 0.005 per tail).

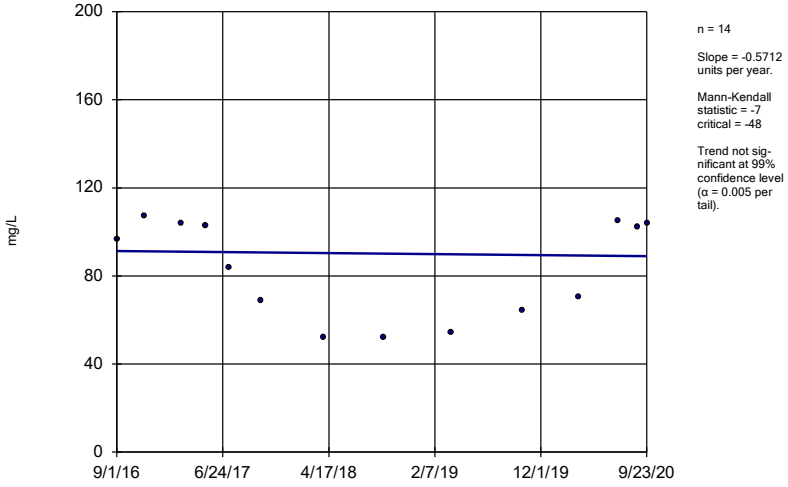
Constituent: Calcium Analysis Run 11/25/2020 12:06 PM View: Trend Tests

Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

YGWC-46A



n = 14

Slope = -0.5712 units per year.

Mann-Kendall statistic = -7 critical = -48

Trend not significant at 99% confidence level (α = 0.005 per tail).

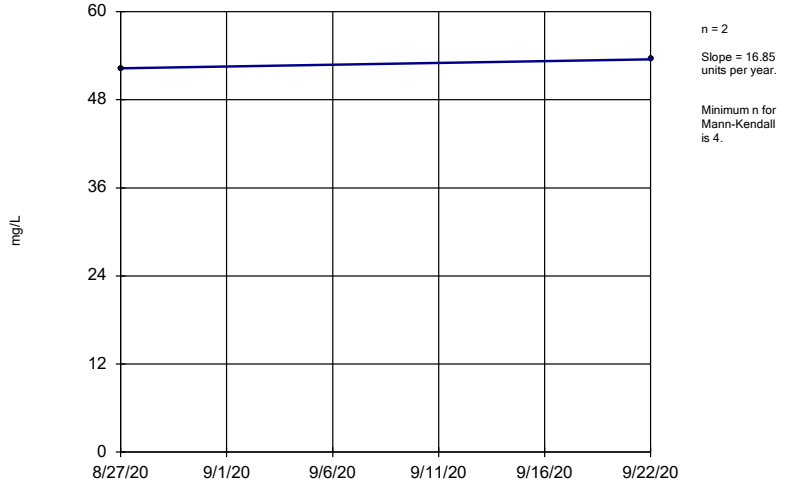
Constituent: Calcium Analysis Run 11/25/2020 12:06 PM View: Trend Tests

Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

YGWC-52



n = 2

Slope = 16.85 units per year.

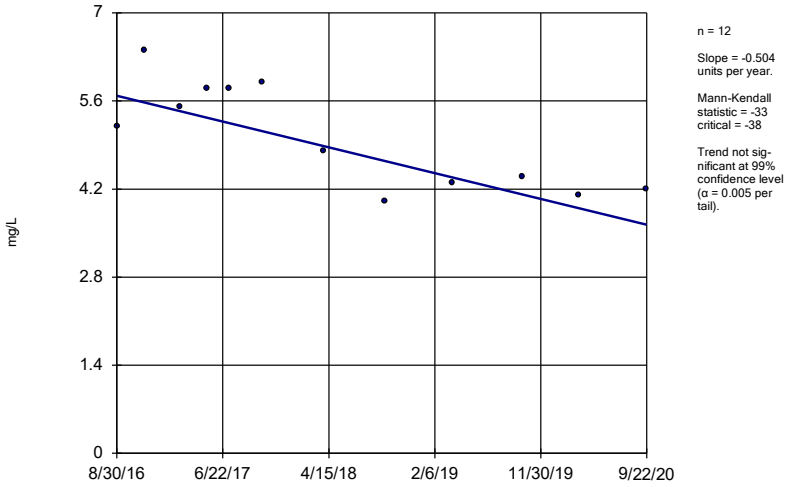
Minimum n for Mann-Kendall is 4.

Constituent: Calcium Analysis Run 11/25/2020 12:06 PM View: Trend Tests

Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sen's Slope Estimator

YGWA-47 (bg)



n = 12

Slope = -0.504 units per year.

Mann-Kendall statistic = -33 critical = -38

Trend not significant at 99% confidence level (α = 0.005 per tail).

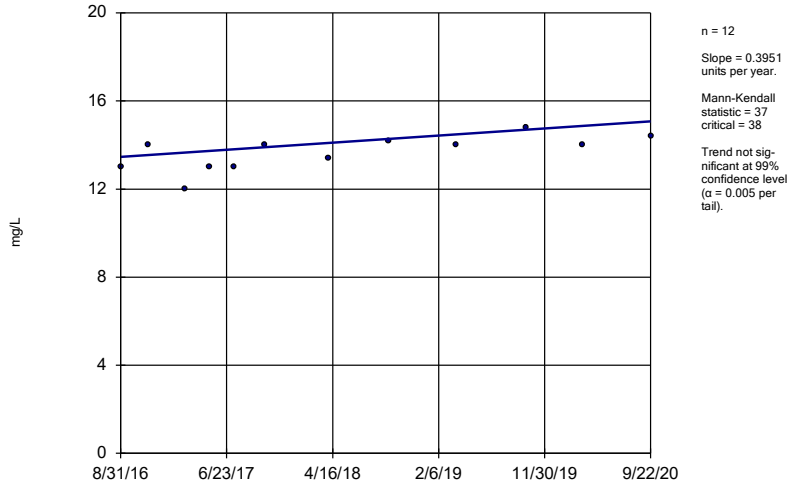
Constituent: Chloride Analysis Run 11/25/2020 12:07 PM View: Trend Tests

Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

YGWC-44



n = 12

Slope = 0.3951 units per year.

Mann-Kendall statistic = 37 critical = 38

Trend not significant at 99% confidence level (α = 0.005 per tail).

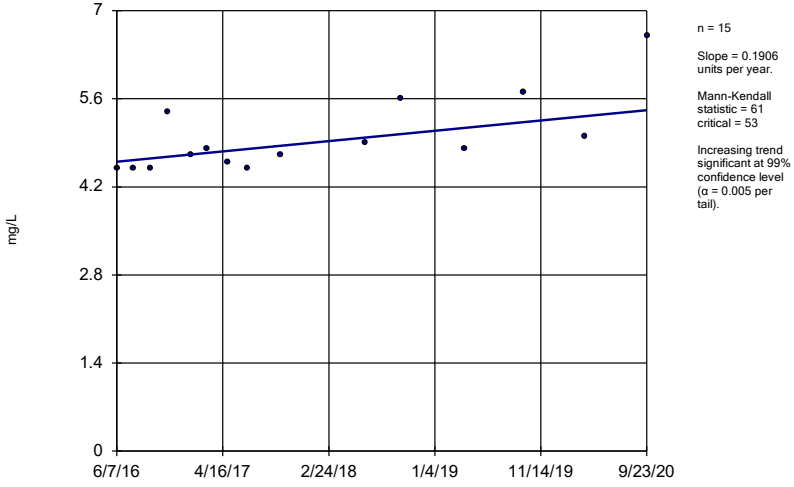
Constituent: Chloride Analysis Run 11/25/2020 12:07 PM View: Trend Tests

Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

YGWA-17S (bg)



n = 15

Slope = 0.1906 units per year.

Mann-Kendall statistic = 61 critical = 53

Increasing trend significant at 99% confidence level (α = 0.005 per tail).

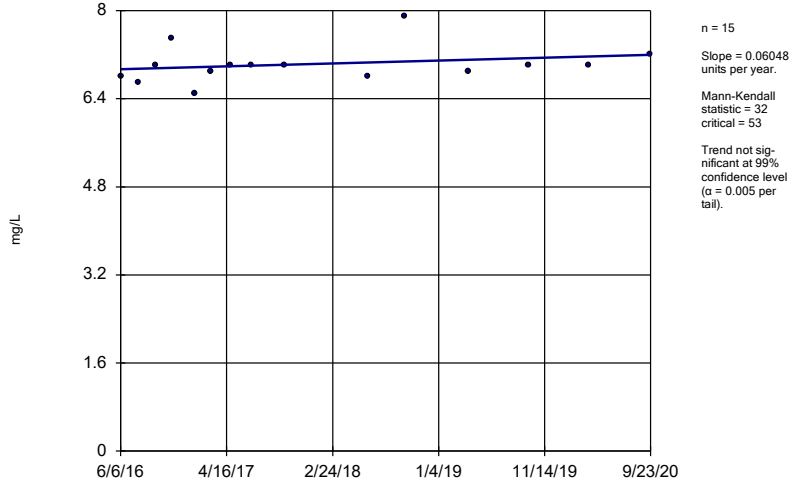
Constituent: Chloride Analysis Run 11/25/2020 12:07 PM View: Trend Tests

Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

YGWA-18I (bg)



n = 15

Slope = 0.06048 units per year.

Mann-Kendall statistic = 32 critical = 53

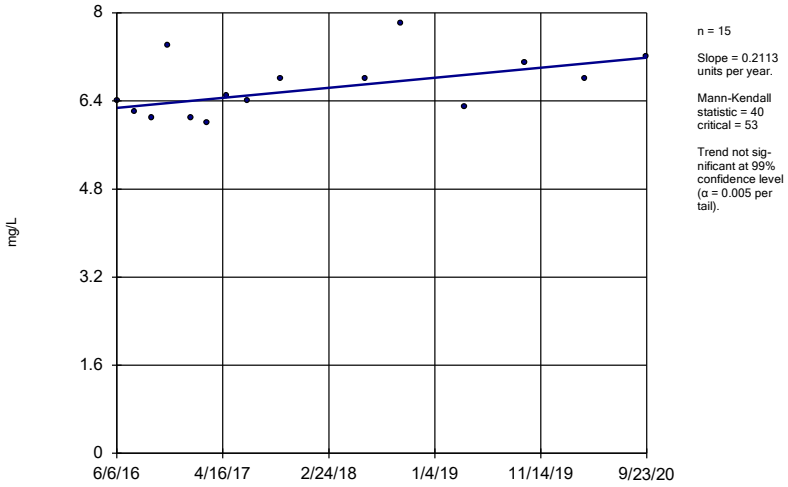
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Chloride Analysis Run 11/25/2020 12:07 PM View: Trend Tests

Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sen's Slope Estimator

YGWA-18S (bg)



n = 15

Slope = 0.2113 units per year.

Mann-Kendall statistic = 40
critical = 53

Trend not significant at 99% confidence level (α = 0.005 per tail).

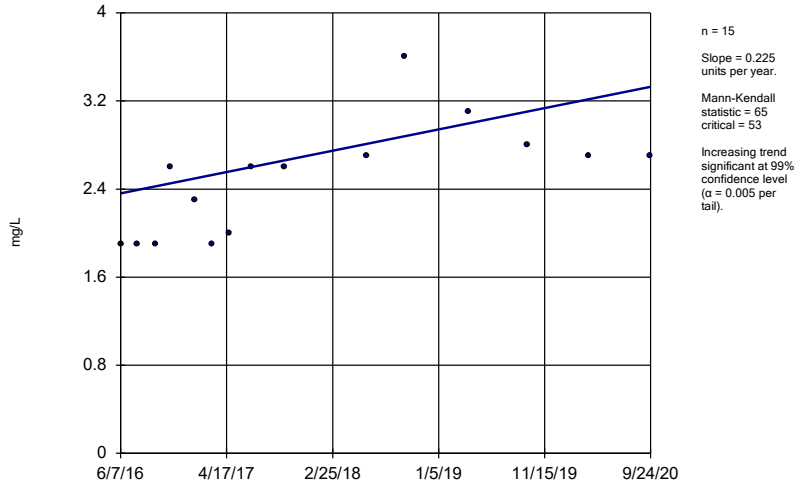
Constituent: Chloride Analysis Run 11/25/2020 12:07 PM View: Trend Tests

Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

YGWA-20S (bg)



n = 15

Slope = 0.225 units per year.

Mann-Kendall statistic = 65
critical = 53

Increasing trend significant at 99% confidence level (α = 0.005 per tail).

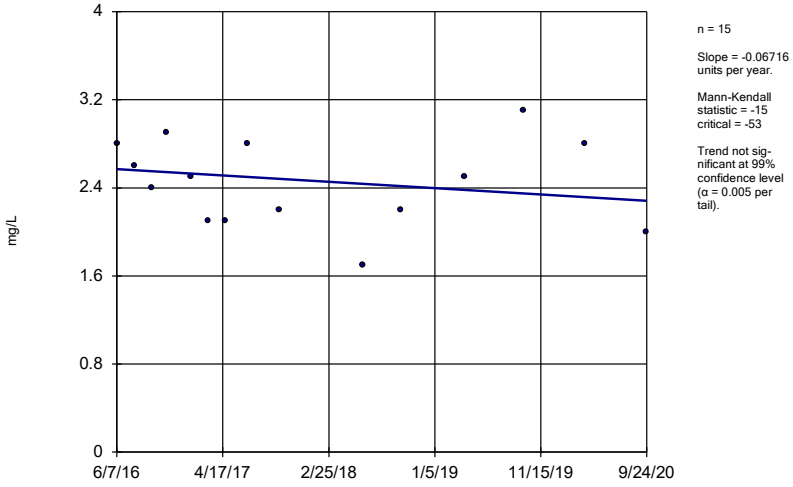
Constituent: Chloride Analysis Run 11/25/2020 12:07 PM View: Trend Tests

Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

YGWA-21I (bg)



n = 15

Slope = -0.06716 units per year.

Mann-Kendall statistic = -15
critical = -53

Trend not significant at 99% confidence level (α = 0.005 per tail).

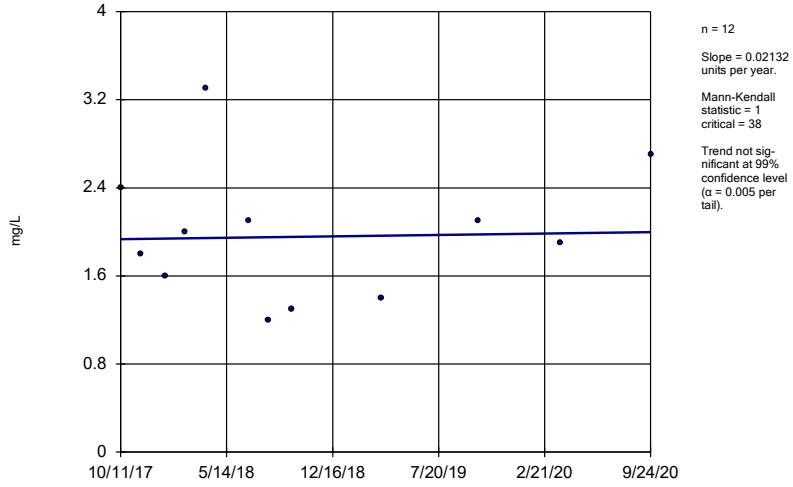
Constituent: Chloride Analysis Run 11/25/2020 12:07 PM View: Trend Tests

Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

YGWA-39 (bg)



n = 12

Slope = 0.02132 units per year.

Mann-Kendall statistic = 1
critical = 38

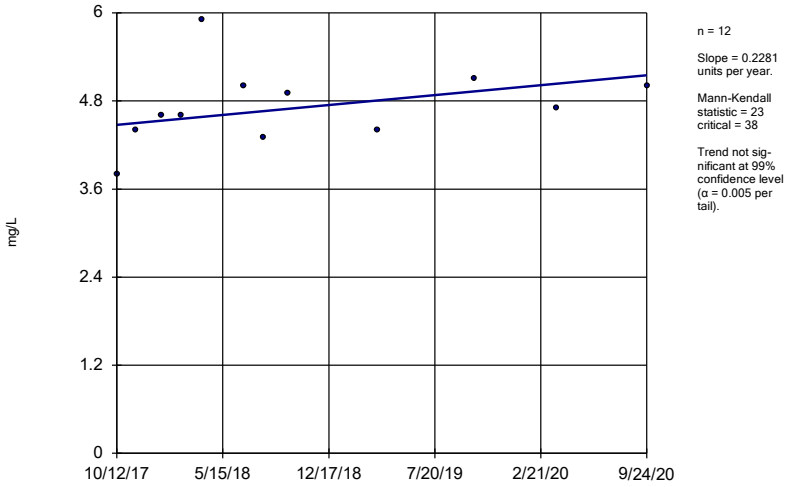
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Chloride Analysis Run 11/25/2020 12:07 PM View: Trend Tests

Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sen's Slope Estimator

YGWA-40 (bg)



n = 12

Slope = 0.2281 units per year.

Mann-Kendall statistic = 23
critical = 38

Trend not significant at 99% confidence level (α = 0.005 per tail).

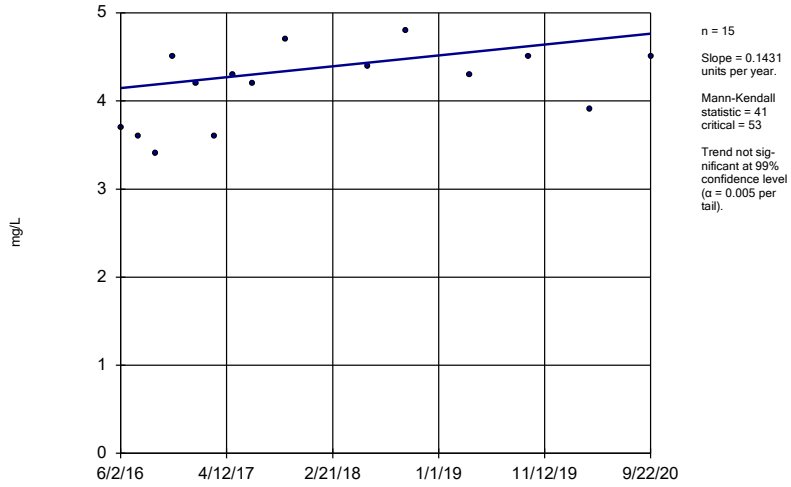
Constituent: Chloride Analysis Run 11/25/2020 12:07 PM View: Trend Tests

Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

YGWA-4I (bg)



n = 15

Slope = 0.1431 units per year.

Mann-Kendall statistic = 41
critical = 53

Trend not significant at 99% confidence level (α = 0.005 per tail).

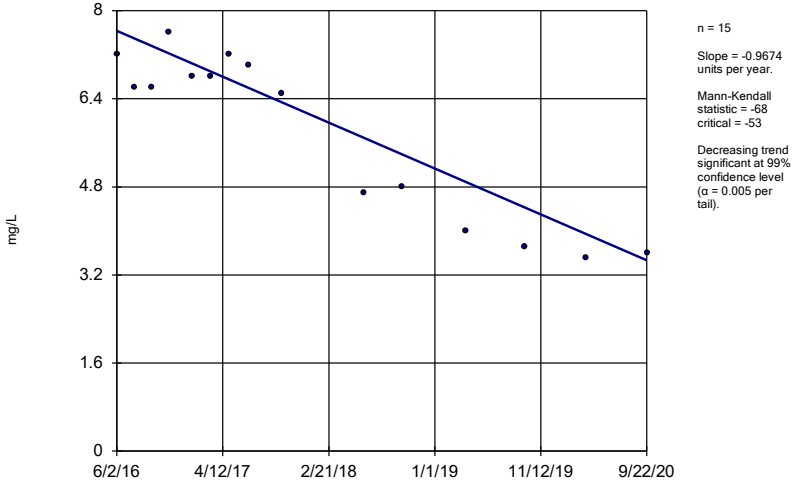
Constituent: Chloride Analysis Run 11/25/2020 12:07 PM View: Trend Tests

Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

YGWA-5D (bg)



n = 15

Slope = -0.9674 units per year.

Mann-Kendall statistic = -68
critical = -53

Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

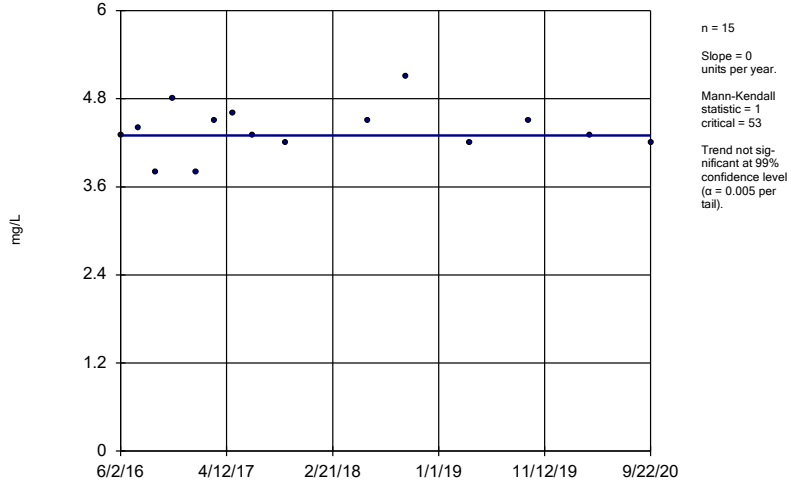
Constituent: Chloride Analysis Run 11/25/2020 12:07 PM View: Trend Tests

Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

YGWA-5I (bg)



n = 15

Slope = 0 units per year.

Mann-Kendall statistic = 1
critical = 53

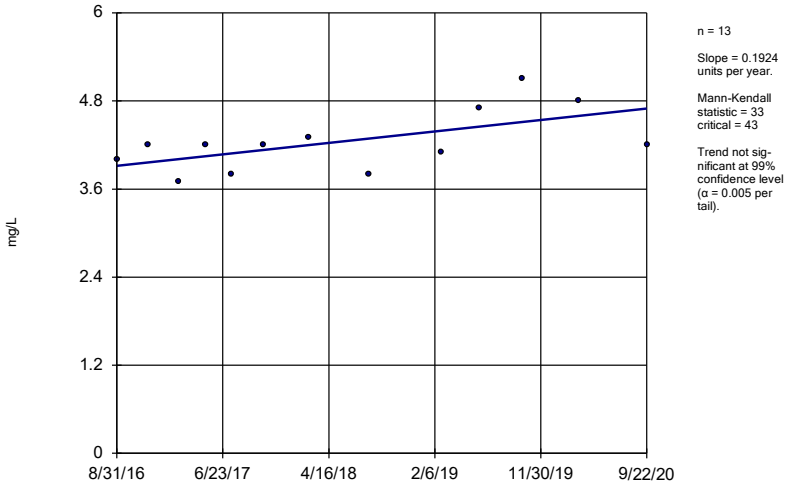
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Chloride Analysis Run 11/25/2020 12:07 PM View: Trend Tests

Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sen's Slope Estimator

GWA-2 (bg)



n = 13

Slope = 0.1924 units per year.

Mann-Kendall statistic = 33 critical = 43

Trend not significant at 99% confidence level (α = 0.005 per tail).

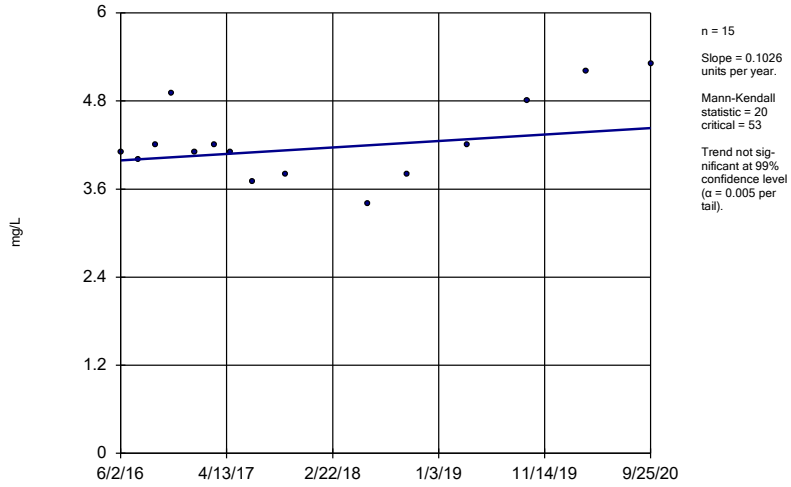
Constituent: Chloride Analysis Run 11/25/2020 12:07 PM View: Trend Tests

Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

YGWA-14S (bg)



n = 15

Slope = 0.1026 units per year.

Mann-Kendall statistic = 20 critical = 53

Trend not significant at 99% confidence level (α = 0.005 per tail).

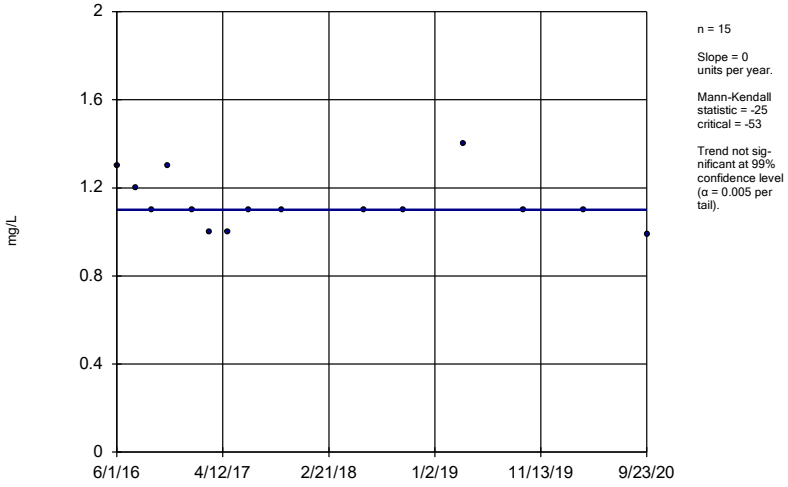
Constituent: Chloride Analysis Run 11/25/2020 12:07 PM View: Trend Tests

Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

YGWA-1D (bg)



n = 15

Slope = 0 units per year.

Mann-Kendall statistic = -25 critical = -53

Trend not significant at 99% confidence level (α = 0.005 per tail).

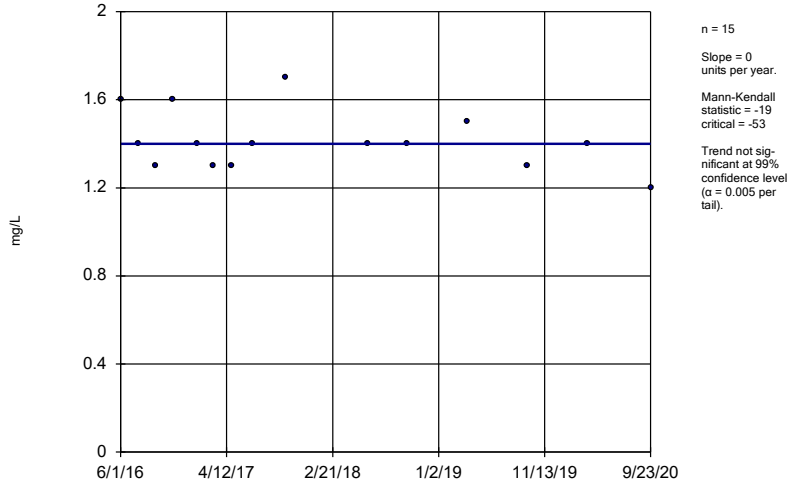
Constituent: Chloride Analysis Run 11/25/2020 12:07 PM View: Trend Tests

Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

YGWA-1I (bg)



n = 15

Slope = 0 units per year.

Mann-Kendall statistic = -19 critical = -53

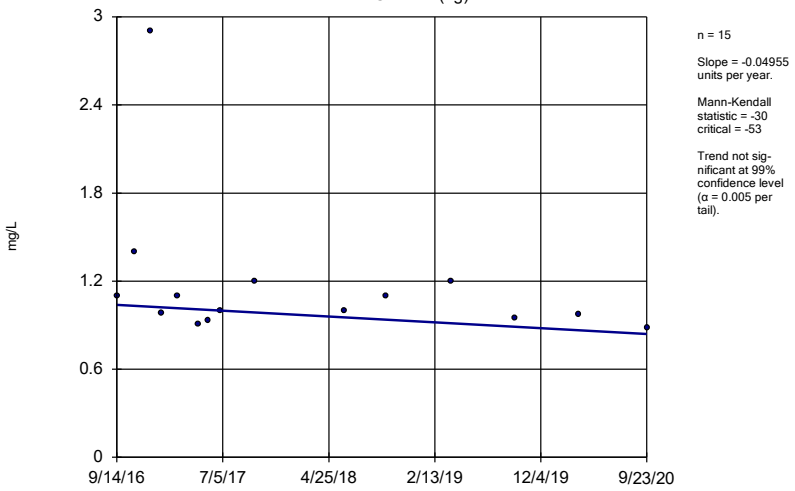
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Chloride Analysis Run 11/25/2020 12:07 PM View: Trend Tests

Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sen's Slope Estimator

YGWA-2I (bg)



n = 15

Slope = -0.04955 units per year.

Mann-Kendall statistic = -30
critical = -53

Trend not significant at 99% confidence level (α = 0.005 per tail).

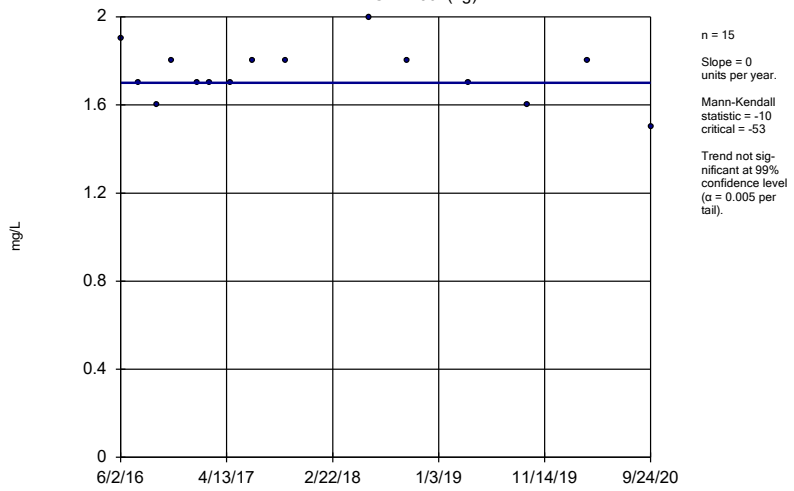
Constituent: Chloride Analysis Run 11/25/2020 12:07 PM View: Trend Tests

Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

YGWA-30I (bg)



n = 15

Slope = 0 units per year.

Mann-Kendall statistic = -10
critical = -53

Trend not significant at 99% confidence level (α = 0.005 per tail).

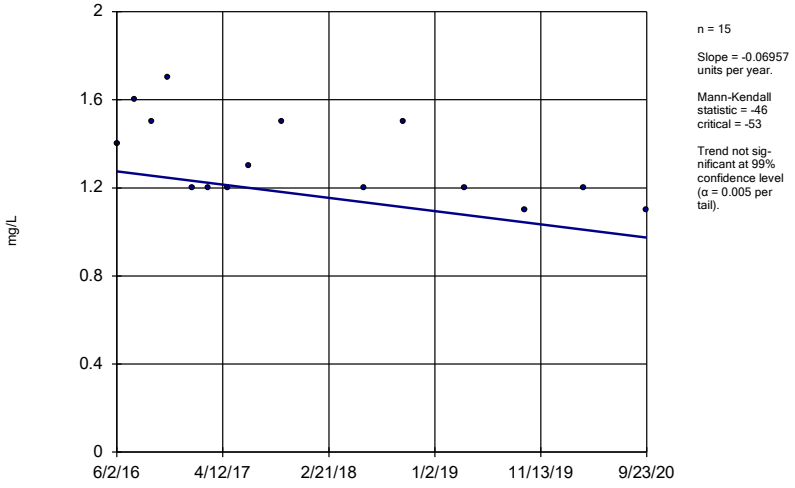
Constituent: Chloride Analysis Run 11/25/2020 12:07 PM View: Trend Tests

Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

YGWA-3D (bg)



n = 15

Slope = -0.06957 units per year.

Mann-Kendall statistic = -46
critical = -53

Trend not significant at 99% confidence level (α = 0.005 per tail).

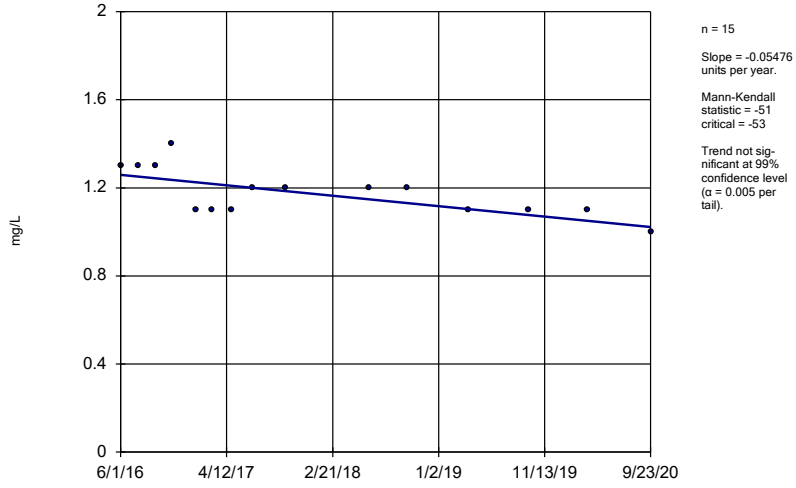
Constituent: Chloride Analysis Run 11/25/2020 12:07 PM View: Trend Tests

Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

YGWA-3I (bg)



n = 15

Slope = -0.05476 units per year.

Mann-Kendall statistic = -51
critical = -53

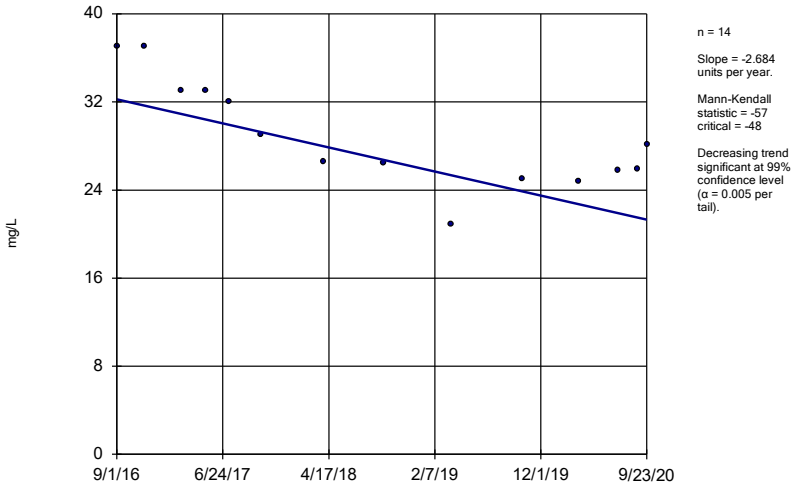
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Chloride Analysis Run 11/25/2020 12:07 PM View: Trend Tests

Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sen's Slope Estimator

YGWC-46A



n = 14

Slope = -2.684 units per year.

Mann-Kendall statistic = -57 critical = -48

Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

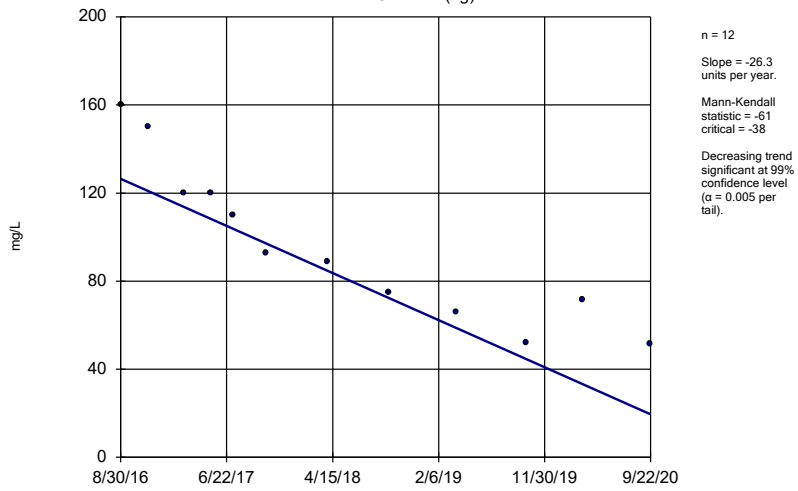
Constituent: Chloride Analysis Run 11/25/2020 12:07 PM View: Trend Tests

Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

YGWA-47 (bg)



n = 12

Slope = -26.3 units per year.

Mann-Kendall statistic = -61 critical = -38

Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

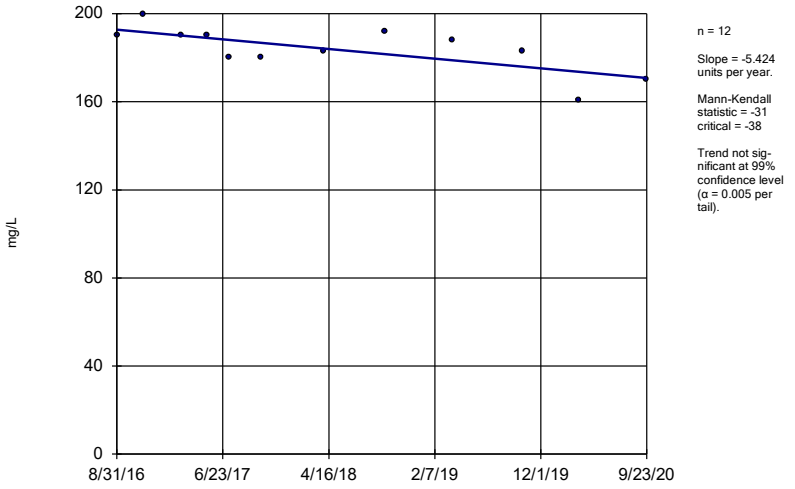
Constituent: Sulfate Analysis Run 11/25/2020 12:07 PM View: Trend Tests

Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

YGWC-45



n = 12

Slope = -5.424 units per year.

Mann-Kendall statistic = -31 critical = -38

Trend not significant at 99% confidence level (α = 0.005 per tail).

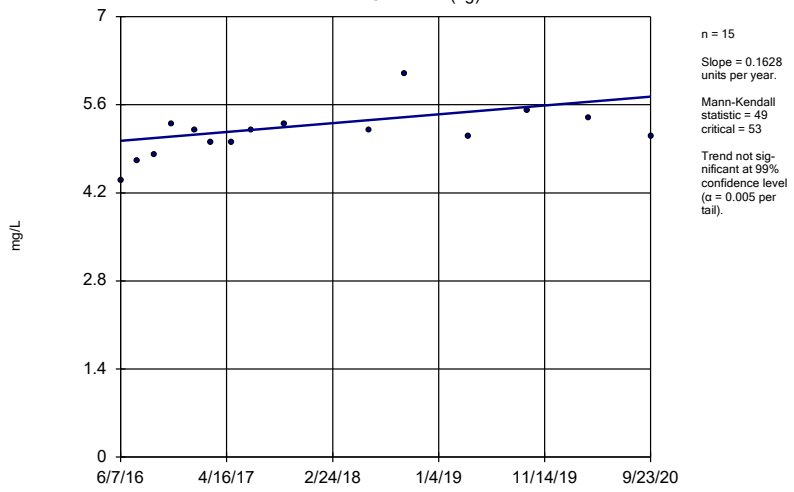
Constituent: Sulfate Analysis Run 11/25/2020 12:07 PM View: Trend Tests

Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

YGWA-17S (bg)



n = 15

Slope = 0.1628 units per year.

Mann-Kendall statistic = 49 critical = 53

Trend not significant at 99% confidence level (α = 0.005 per tail).

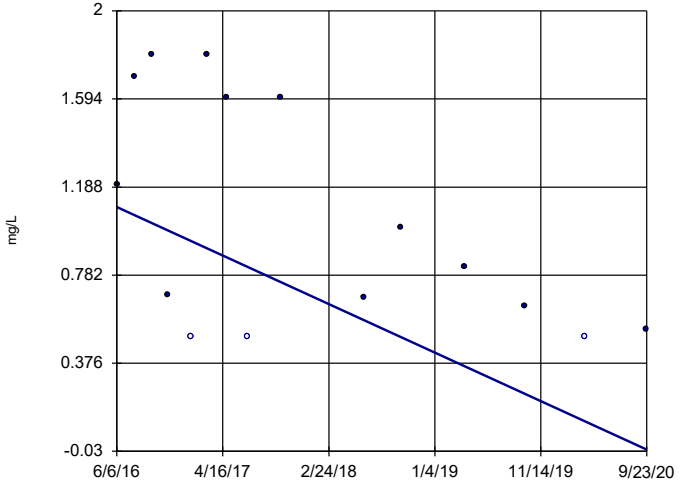
Constituent: Sulfate Analysis Run 11/25/2020 12:07 PM View: Trend Tests

Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

YGWA-18I (bg)



n = 15

Slope = -0.2596 units per year.

Mann-Kendall statistic = -42
critical = -53

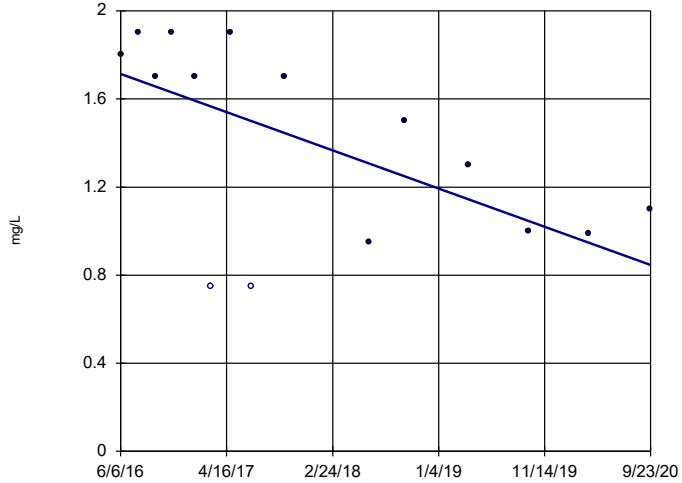
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Sulfate Analysis Run 11/25/2020 12:07 PM View: Trend Tests
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

YGWA-18S (bg)



n = 15

Slope = -0.2017 units per year.

Mann-Kendall statistic = -42
critical = -53

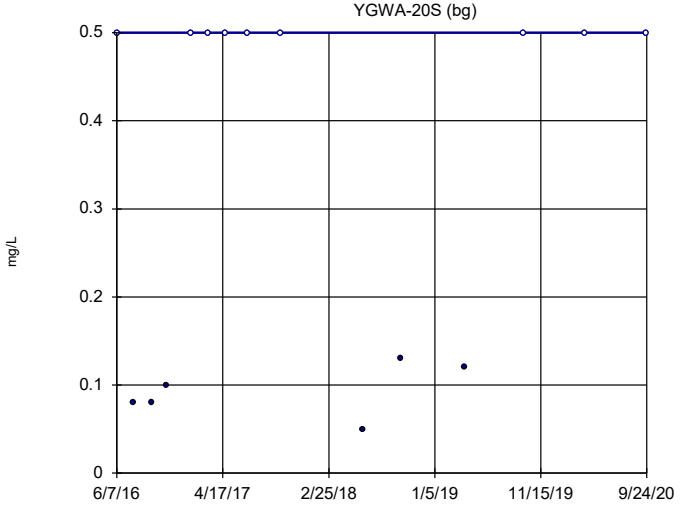
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Sulfate Analysis Run 11/25/2020 12:07 PM View: Trend Tests
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

YGWA-20S (bg)



n = 15

Slope = 0 units per year.

Mann-Kendall statistic = 18
critical = 53

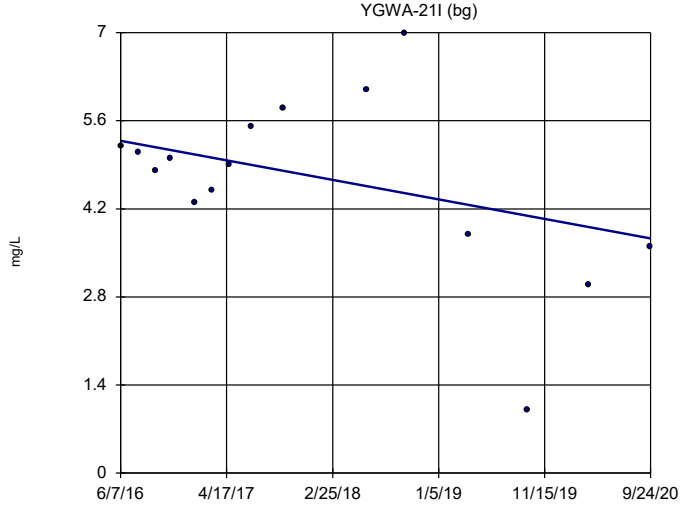
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Sulfate Analysis Run 11/25/2020 12:07 PM View: Trend Tests
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

YGWA-21I (bg)



n = 15

Slope = -0.3604 units per year.

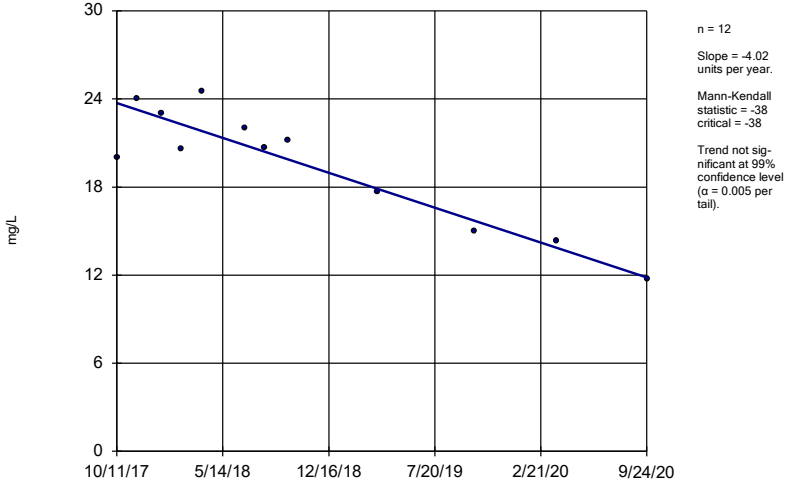
Mann-Kendall statistic = -21
critical = -53

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Sulfate Analysis Run 11/25/2020 12:07 PM View: Trend Tests
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sen's Slope Estimator

YGWA-39 (bg)



n = 12

Slope = -4.02 units per year.

Mann-Kendall statistic = -38
critical = -38

Trend not significant at 99% confidence level (α = 0.005 per tail).

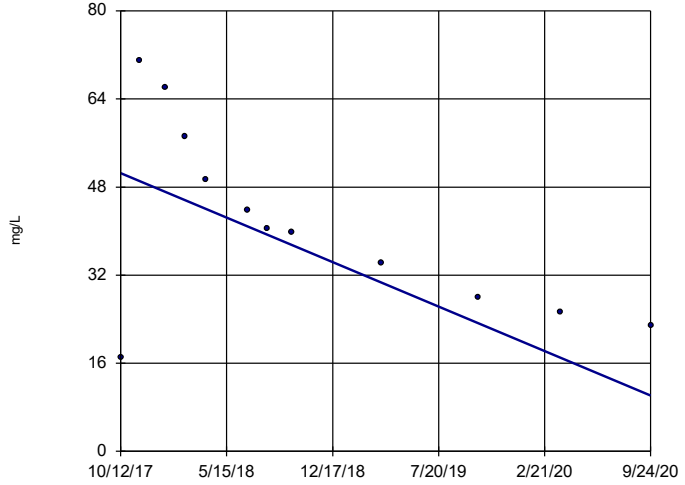
Constituent: Sulfate Analysis Run 11/25/2020 12:07 PM View: Trend Tests

Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

YGWA-40 (bg)



n = 12

Slope = -13.69 units per year.

Mann-Kendall statistic = -44
critical = -38

Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

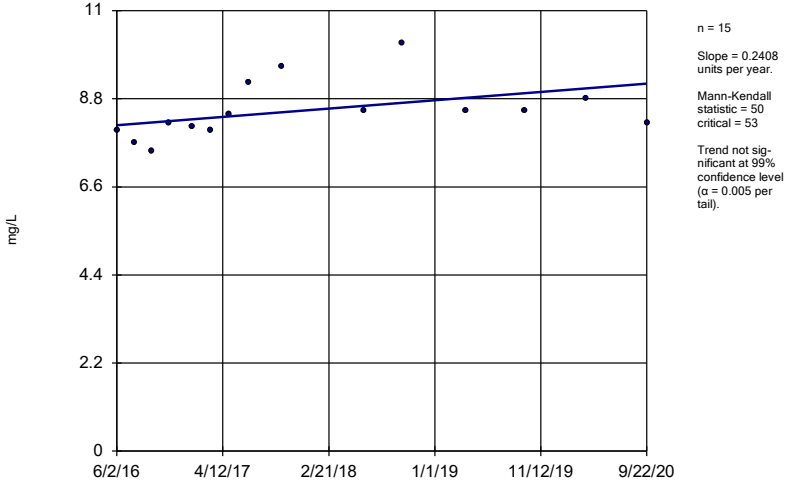
Constituent: Sulfate Analysis Run 11/25/2020 12:07 PM View: Trend Tests

Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

YGWA-4I (bg)



n = 15

Slope = 0.2408 units per year.

Mann-Kendall statistic = 50
critical = 53

Trend not significant at 99% confidence level (α = 0.005 per tail).

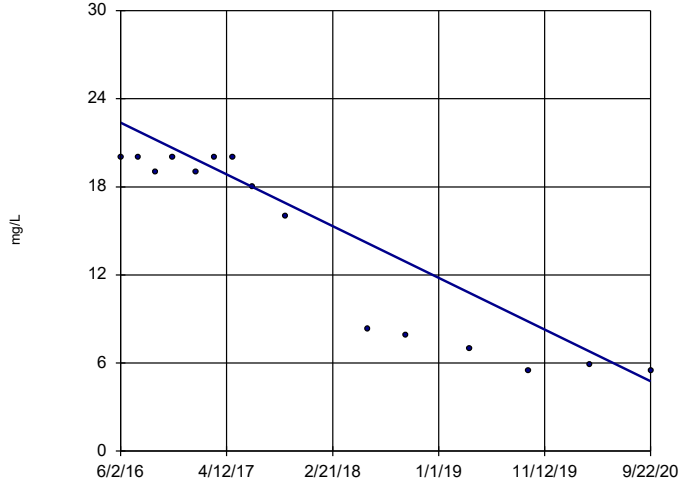
Constituent: Sulfate Analysis Run 11/25/2020 12:07 PM View: Trend Tests

Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

YGWA-5D (bg)



n = 15

Slope = -4.083 units per year.

Mann-Kendall statistic = -81
critical = -53

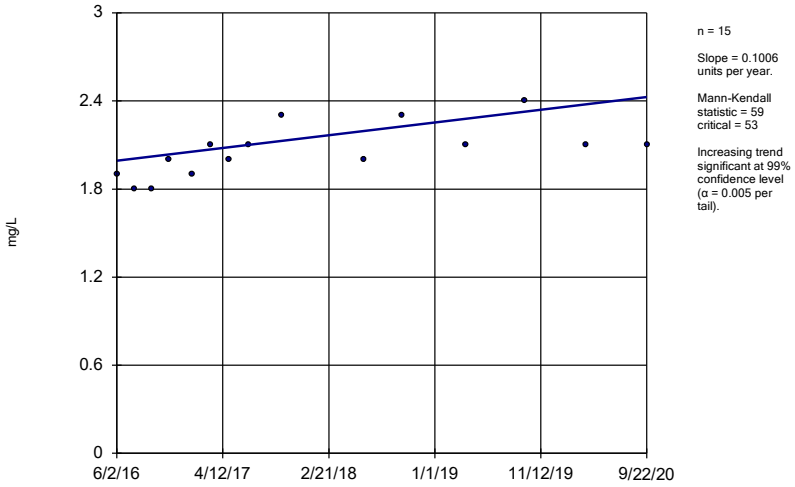
Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Sulfate Analysis Run 11/25/2020 12:07 PM View: Trend Tests

Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sen's Slope Estimator

YGWA-5I (bg)



n = 15

Slope = 0.1006 units per year.

Mann-Kendall statistic = 59 critical = 53

Increasing trend significant at 99% confidence level (α = 0.005 per tail).

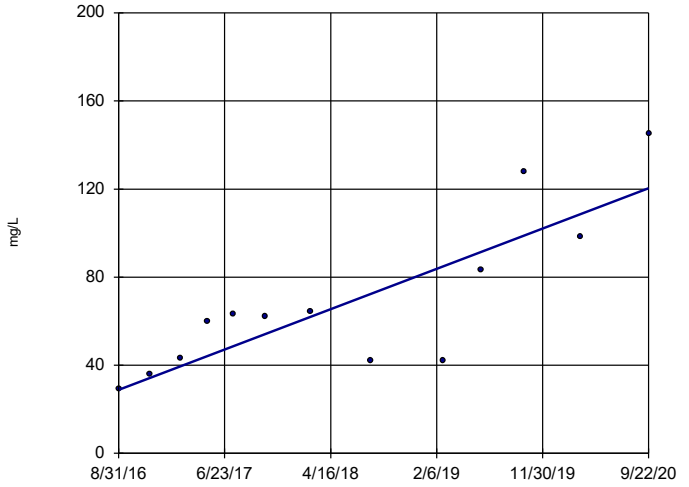
Constituent: Sulfate Analysis Run 11/25/2020 12:07 PM View: Trend Tests

Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

GWA-2 (bg)



n = 13

Slope = 22.54 units per year.

Mann-Kendall statistic = 53 critical = 43

Increasing trend significant at 99% confidence level (α = 0.005 per tail).

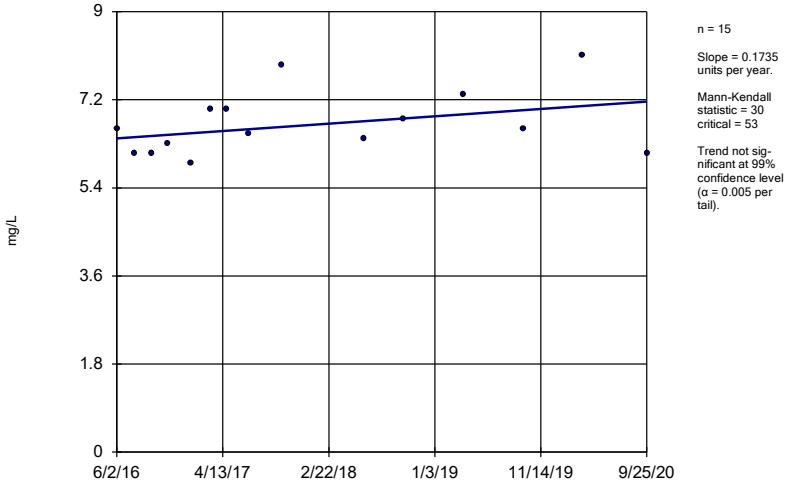
Constituent: Sulfate Analysis Run 11/25/2020 12:07 PM View: Trend Tests

Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

YGWA-14S (bg)



n = 15

Slope = 0.1735 units per year.

Mann-Kendall statistic = 30 critical = 53

Trend not sig-nificant at 99% confidence level (α = 0.005 per tail).

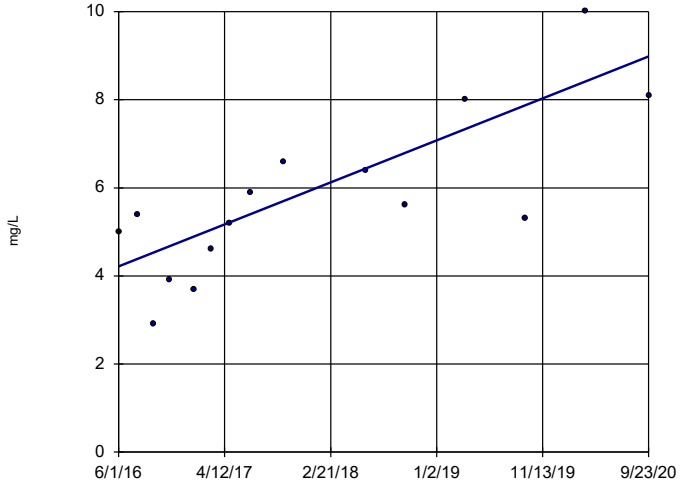
Constituent: Sulfate Analysis Run 11/25/2020 12:07 PM View: Trend Tests

Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

YGWA-1D (bg)



n = 15

Slope = 1.104 units per year.

Mann-Kendall statistic = 63 critical = 53

Increasing trend significant at 99% confidence level (α = 0.005 per tail).

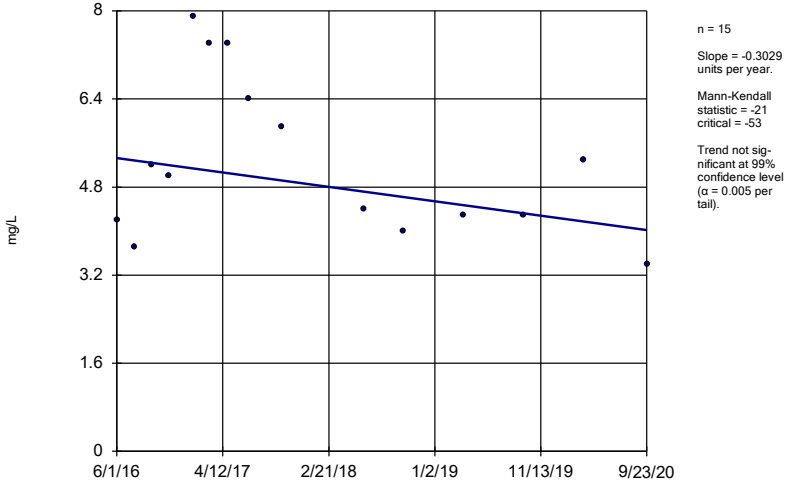
Constituent: Sulfate Analysis Run 11/25/2020 12:07 PM View: Trend Tests

Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

YGWA-1I (bg)



n = 15

Slope = -0.3029 units per year.

Mann-Kendall statistic = -21 critical = -53

Trend not significant at 99% confidence level (α = 0.005 per tail).

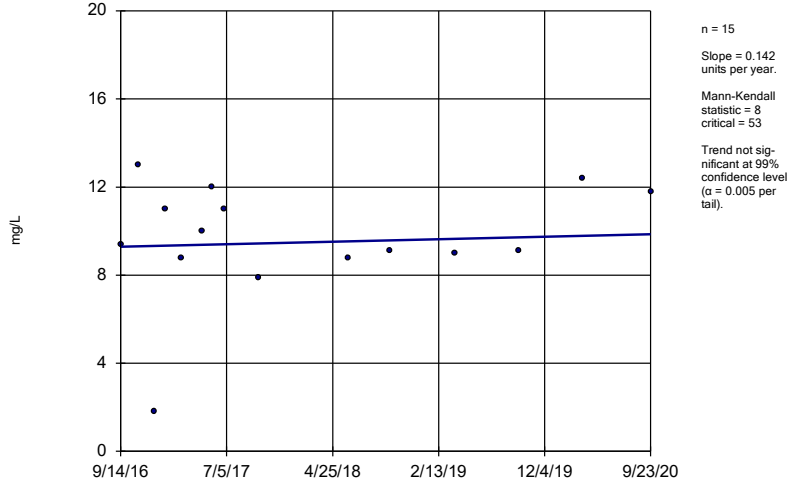
Constituent: Sulfate Analysis Run 11/25/2020 12:07 PM View: Trend Tests

Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

YGWA-2I (bg)



n = 15

Slope = 0.142 units per year.

Mann-Kendall statistic = 8 critical = 53

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Sulfate Analysis Run 11/25/2020 12:07 PM View: Trend Tests

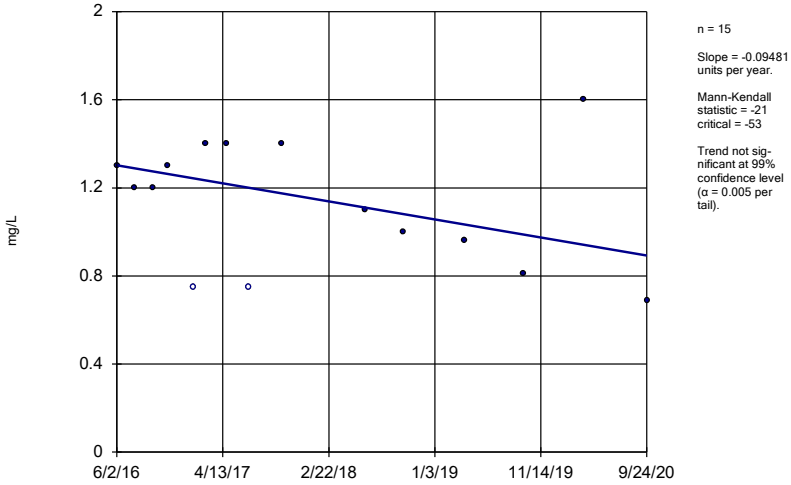
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Hollow symbols indicate censored values.

Sen's Slope Estimator

YGWA-30I (bg)



n = 15

Slope = -0.09481 units per year.

Mann-Kendall statistic = -21 critical = -53

Trend not significant at 99% confidence level (α = 0.005 per tail).

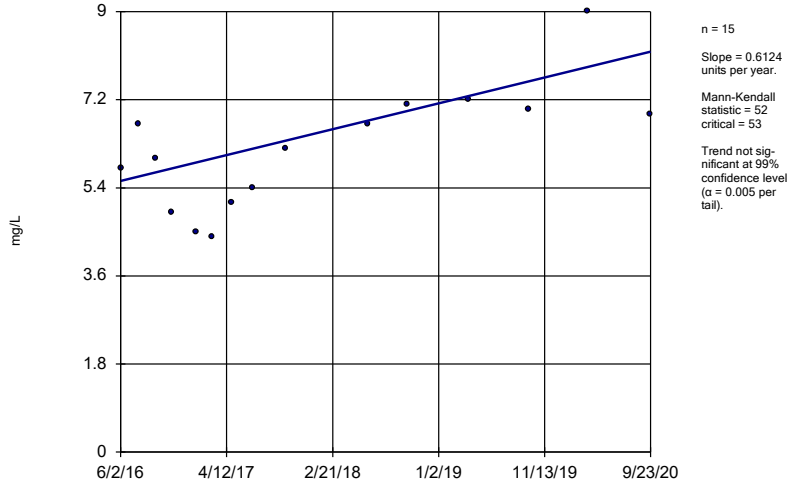
Constituent: Sulfate Analysis Run 11/25/2020 12:07 PM View: Trend Tests

Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

YGWA-3D (bg)



n = 15

Slope = 0.6124 units per year.

Mann-Kendall statistic = 52 critical = 53

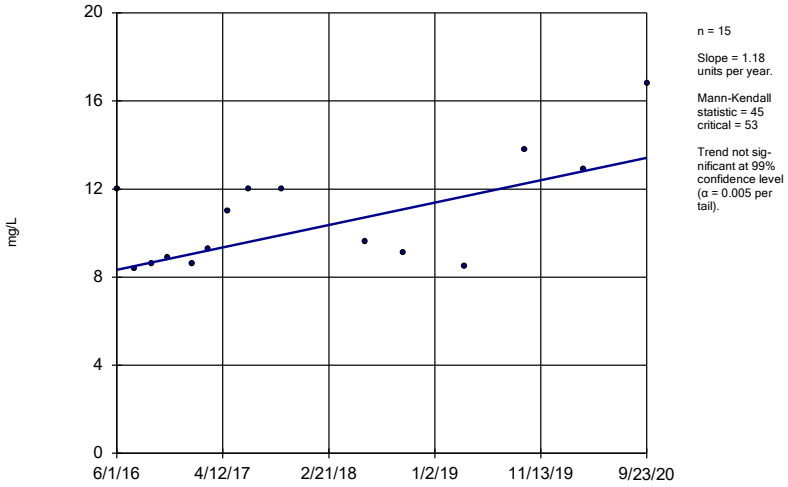
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Sulfate Analysis Run 11/25/2020 12:07 PM View: Trend Tests

Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sen's Slope Estimator

YGWA-3I (bg)



n = 15

Slope = 1.18 units per year.

Mann-Kendall statistic = 45 critical = 53

Trend not significant at 99% confidence level (α = 0.005 per tail).

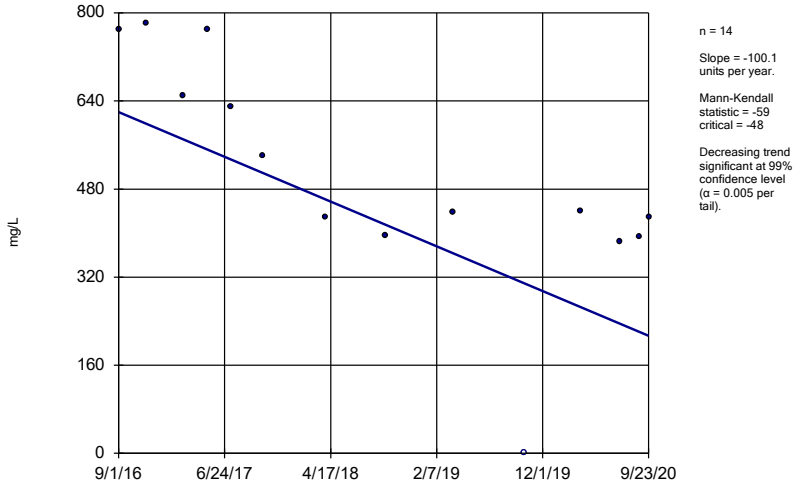
Constituent: Sulfate Analysis Run 11/25/2020 12:07 PM View: Trend Tests

Plant Yates Client: Southern Company Data: Yates Ash Pond1

Hollow symbols indicate censored values.

Sen's Slope Estimator

YGWC-46A



n = 14

Slope = -100.1 units per year.

Mann-Kendall statistic = -59 critical = -48

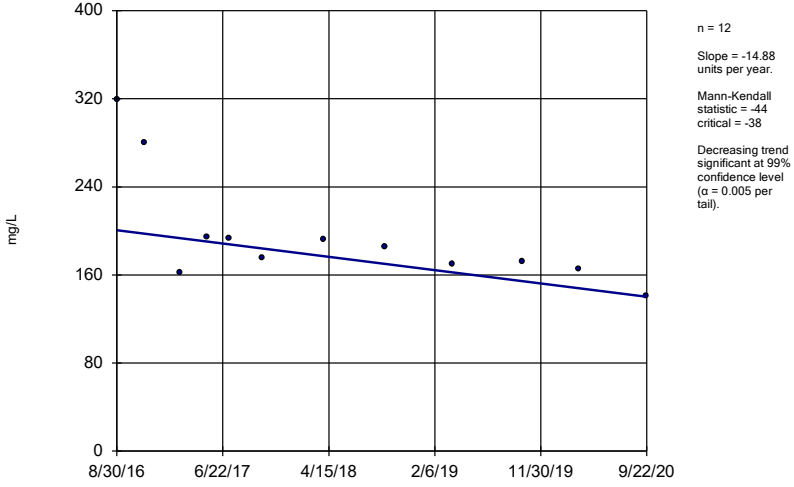
Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Sulfate Analysis Run 11/25/2020 12:07 PM View: Trend Tests

Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sen's Slope Estimator

YGWA-47 (bg)



n = 12

Slope = -14.88 units per year.

Mann-Kendall statistic = -44 critical = -38

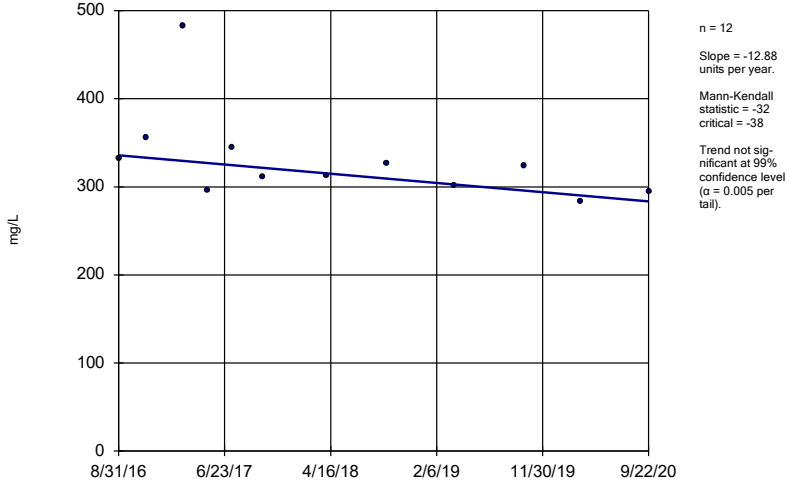
Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Total Dissolved Solids Analysis Run 11/25/2020 12:07 PM View: Trend Tests

Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sen's Slope Estimator

YGWC-44



n = 12

Slope = -12.88 units per year.

Mann-Kendall statistic = -32 critical = -38

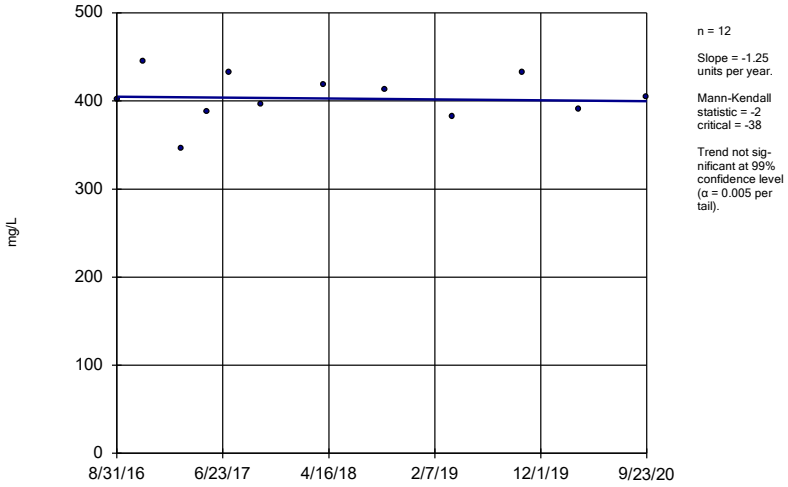
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Total Dissolved Solids Analysis Run 11/25/2020 12:07 PM View: Trend Tests

Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sen's Slope Estimator

YGWC-45



n = 12

Slope = -1.25 units per year.

Mann-Kendall statistic = -2
critical = -38

Trend not significant at 99% confidence level (α = 0.005 per tail).

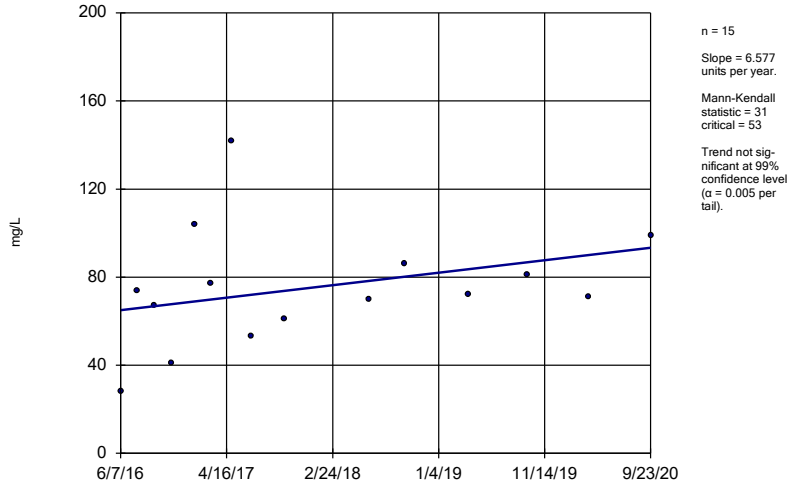
Constituent: Total Dissolved Solids Analysis Run 11/25/2020 12:07 PM View: Trend Tests

Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

YGWA-17S (bg)



n = 15

Slope = 6.577 units per year.

Mann-Kendall statistic = 31
critical = 53

Trend not significant at 99% confidence level (α = 0.005 per tail).

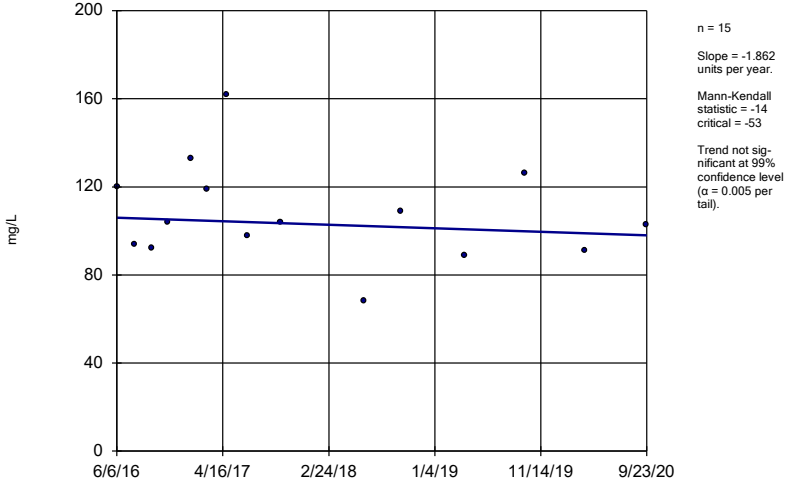
Constituent: Total Dissolved Solids Analysis Run 11/25/2020 12:07 PM View: Trend Tests

Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

YGWA-18I (bg)



n = 15

Slope = -1.862 units per year.

Mann-Kendall statistic = -14
critical = -53

Trend not significant at 99% confidence level (α = 0.005 per tail).

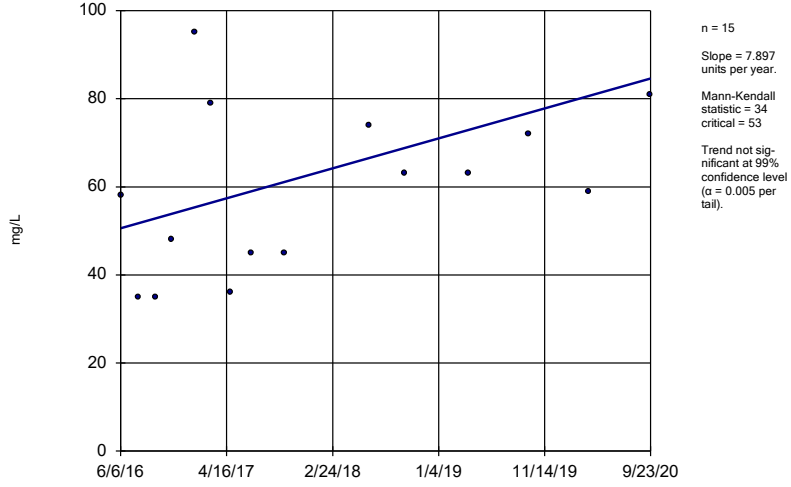
Constituent: Total Dissolved Solids Analysis Run 11/25/2020 12:07 PM View: Trend Tests

Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

YGWA-18S (bg)



n = 15

Slope = 7.897 units per year.

Mann-Kendall statistic = 34
critical = 53

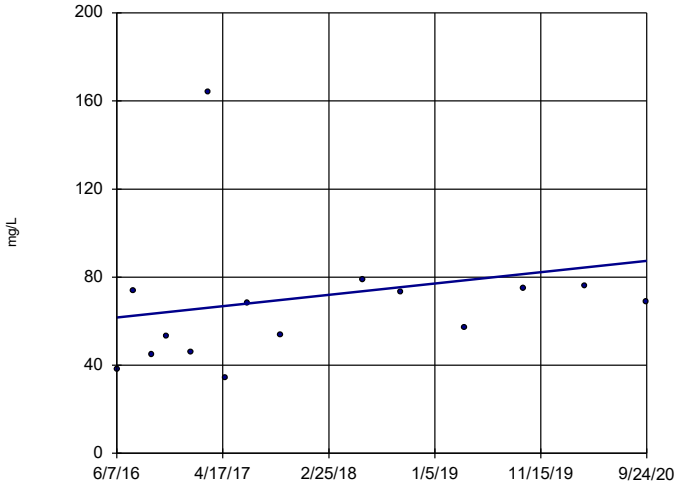
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Total Dissolved Solids Analysis Run 11/25/2020 12:07 PM View: Trend Tests

Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sen's Slope Estimator

YGWA-20S (bg)



n = 15

Slope = 5.975 units per year.

Mann-Kendall statistic = 37 critical = 53

Trend not significant at 99% confidence level (α = 0.005 per tail).

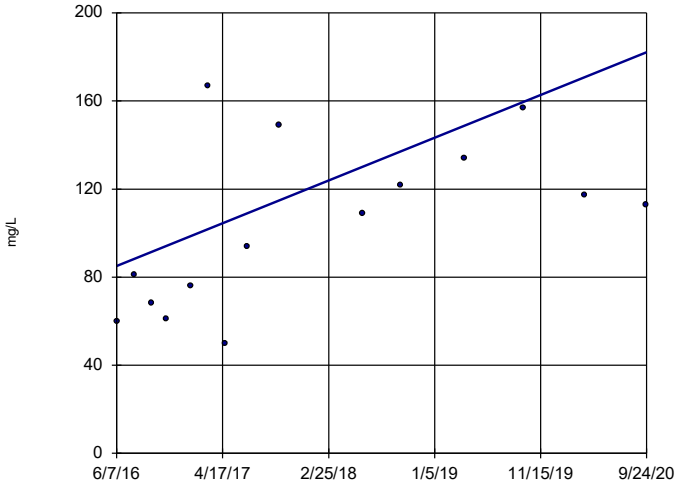
Constituent: Total Dissolved Solids Analysis Run 11/25/2020 12:07 PM View: Trend Tests

Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

YGWA-21I (bg)



n = 15

Slope = 22.56 units per year.

Mann-Kendall statistic = 45 critical = 53

Trend not significant at 99% confidence level (α = 0.005 per tail).

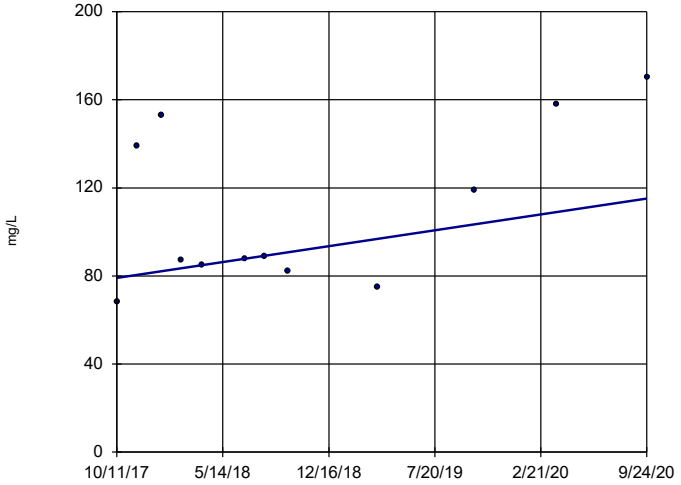
Constituent: Total Dissolved Solids Analysis Run 11/25/2020 12:07 PM View: Trend Tests

Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

YGWA-39 (bg)



n = 12

Slope = 12.16 units per year.

Mann-Kendall statistic = 18 critical = 38

Trend not significant at 99% confidence level (α = 0.005 per tail).

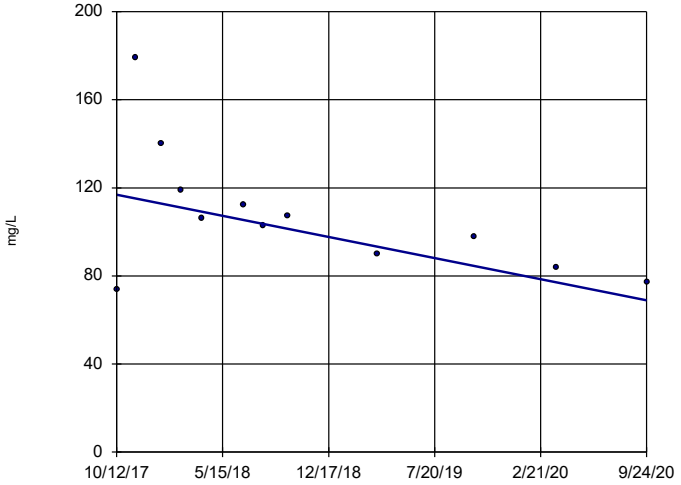
Constituent: Total Dissolved Solids Analysis Run 11/25/2020 12:07 PM View: Trend Tests

Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

YGWA-40 (bg)



n = 12

Slope = -16.26 units per year.

Mann-Kendall statistic = -36 critical = -38

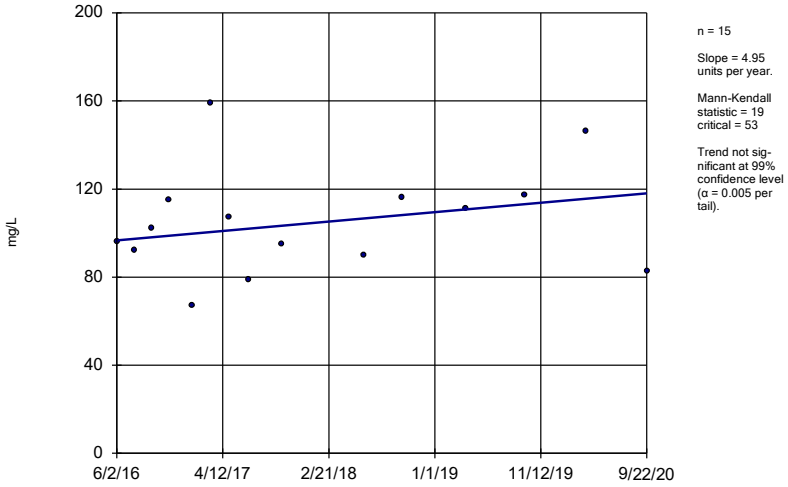
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Total Dissolved Solids Analysis Run 11/25/2020 12:07 PM View: Trend Tests

Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sen's Slope Estimator

YGWA-4I (bg)



n = 15

Slope = 4.95 units per year.

Mann-Kendall statistic = 19 critical = 53

Trend not significant at 99% confidence level (α = 0.005 per tail).

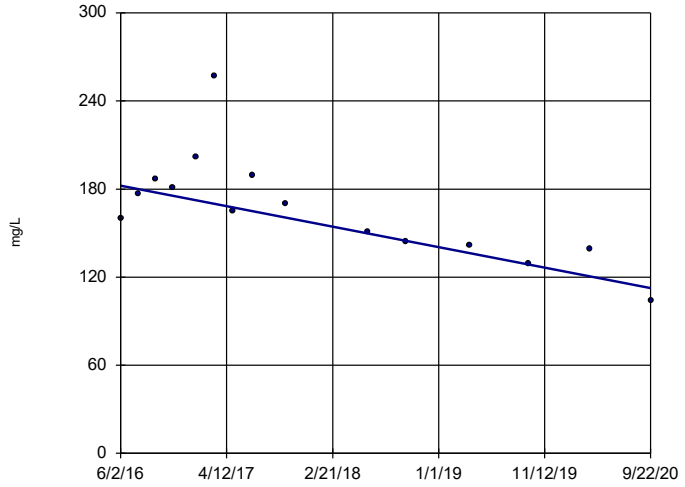
Constituent: Total Dissolved Solids Analysis Run 11/25/2020 12:07 PM View: Trend Tests

Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

YGWA-5D (bg)



n = 15

Slope = -16.16 units per year.

Mann-Kendall statistic = -59 critical = -53

Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

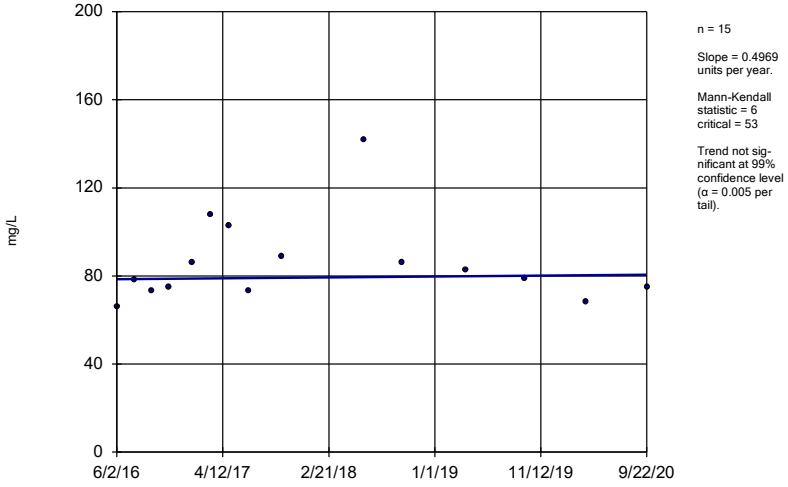
Constituent: Total Dissolved Solids Analysis Run 11/25/2020 12:07 PM View: Trend Tests

Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

YGWA-5I (bg)



n = 15

Slope = 0.4969 units per year.

Mann-Kendall statistic = 6 critical = 53

Trend not significant at 99% confidence level (α = 0.005 per tail).

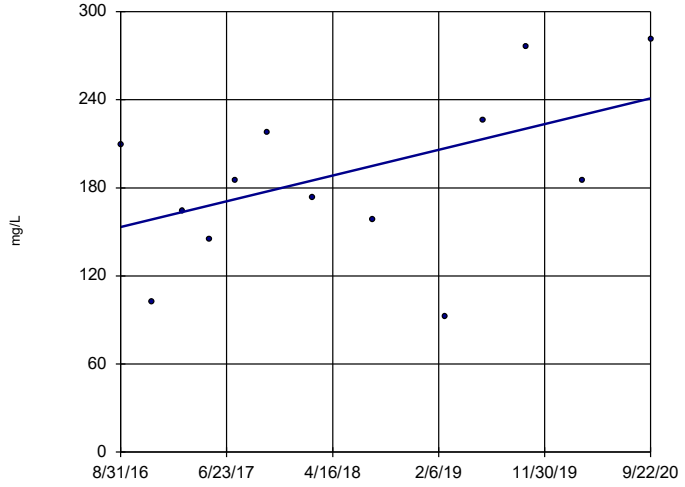
Constituent: Total Dissolved Solids Analysis Run 11/25/2020 12:07 PM View: Trend Tests

Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

GWA-2 (bg)



n = 13

Slope = 21.56 units per year.

Mann-Kendall statistic = 27 critical = 43

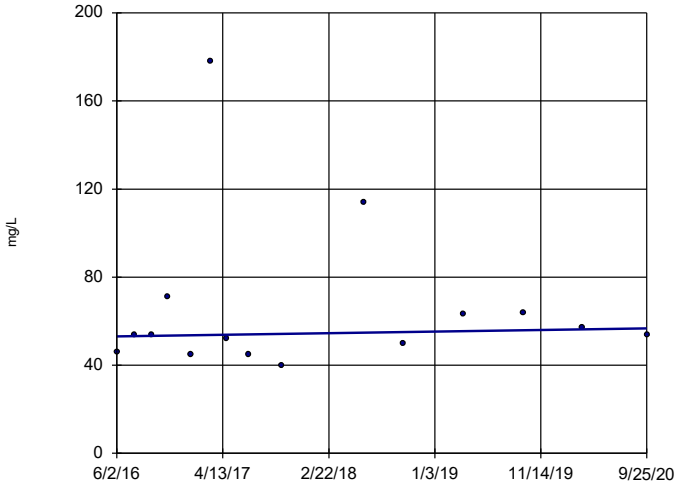
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Total Dissolved Solids Analysis Run 11/25/2020 12:07 PM View: Trend Tests

Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sen's Slope Estimator

YGWA-14S (bg)



n = 15

Slope = 0.8555 units per year.

Mann-Kendall statistic = 9
critical = 53

Trend not significant at 99% confidence level (α = 0.005 per tail).

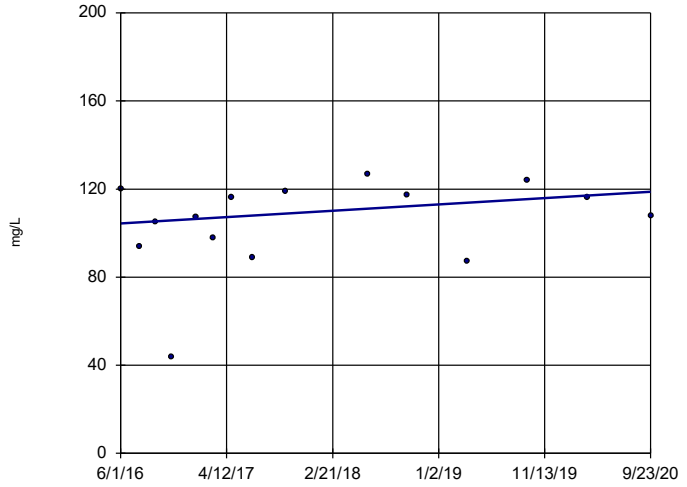
Constituent: Total Dissolved Solids Analysis Run 11/25/2020 12:07 PM View: Trend Tests

Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

YGWA-1D (bg)



n = 15

Slope = 3.318 units per year.

Mann-Kendall statistic = 18
critical = 53

Trend not significant at 99% confidence level (α = 0.005 per tail).

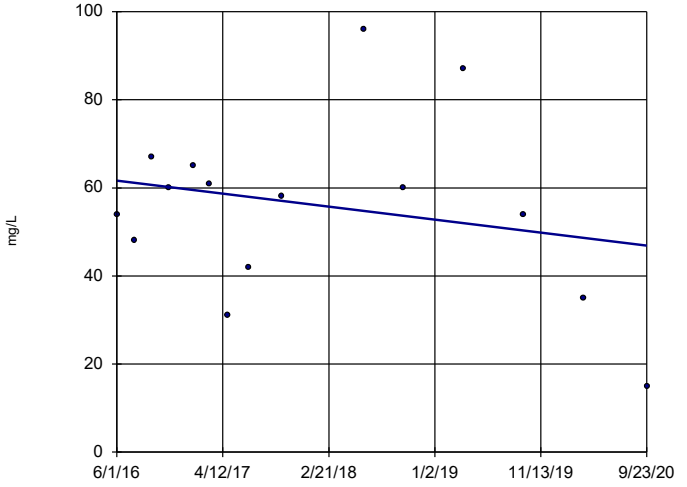
Constituent: Total Dissolved Solids Analysis Run 11/25/2020 12:07 PM View: Trend Tests

Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

YGWA-1I (bg)



n = 15

Slope = -3.416 units per year.

Mann-Kendall statistic = -17
critical = -53

Trend not significant at 99% confidence level (α = 0.005 per tail).

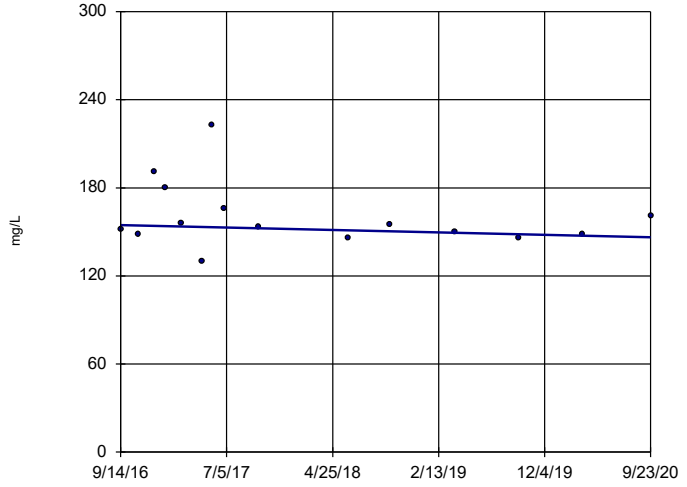
Constituent: Total Dissolved Solids Analysis Run 11/25/2020 12:07 PM View: Trend Tests

Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

YGWA-2I (bg)



n = 15

Slope = -2.032 units per year.

Mann-Kendall statistic = -19
critical = -53

Trend not significant at 99% confidence level (α = 0.005 per tail).

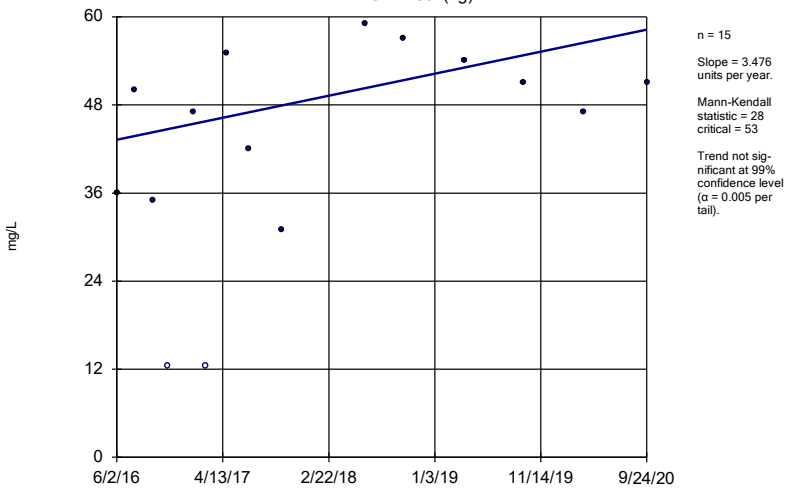
Constituent: Total Dissolved Solids Analysis Run 11/25/2020 12:07 PM View: Trend Tests

Plant Yates Client: Southern Company Data: Yates Ash Pond1

Hollow symbols indicate censored values.

Sen's Slope Estimator

YGWA-30I (bg)



n = 15

Slope = 3.476 units per year.

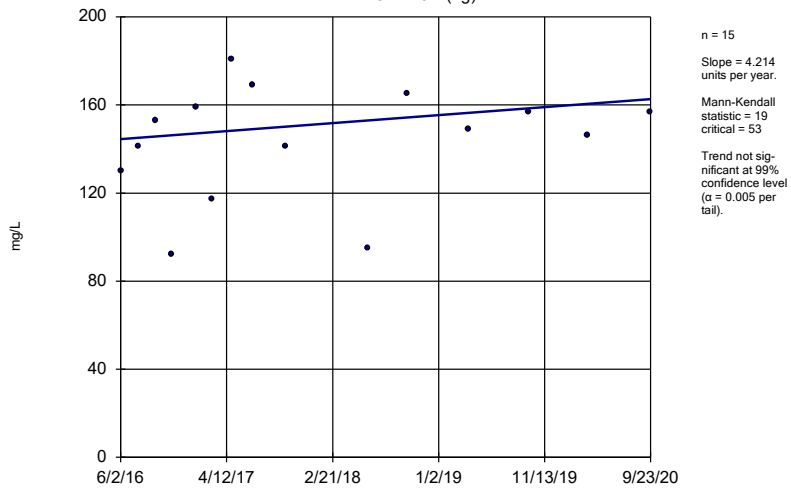
Mann-Kendall statistic = 28
critical = 53

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Total Dissolved Solids Analysis Run 11/25/2020 12:07 PM View: Trend Tests
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sen's Slope Estimator

YGWA-3D (bg)



n = 15

Slope = 4.214 units per year.

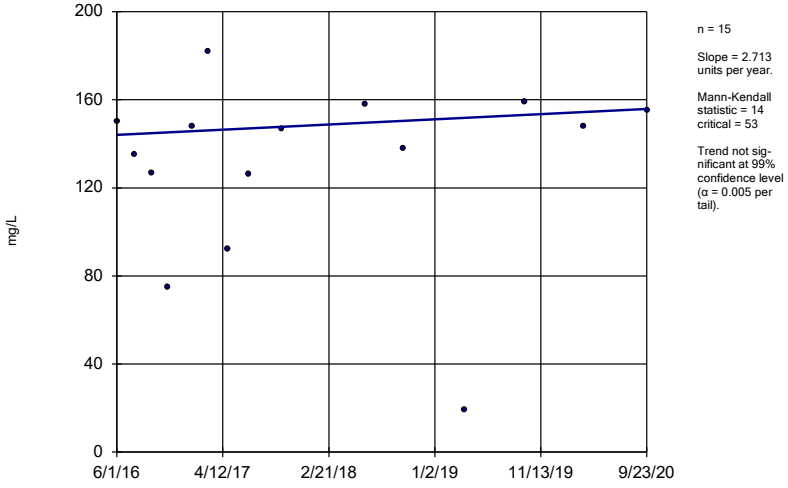
Mann-Kendall statistic = 19
critical = 53

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Total Dissolved Solids Analysis Run 11/25/2020 12:07 PM View: Trend Tests
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sen's Slope Estimator

YGWA-3I (bg)



n = 15

Slope = 2.713 units per year.

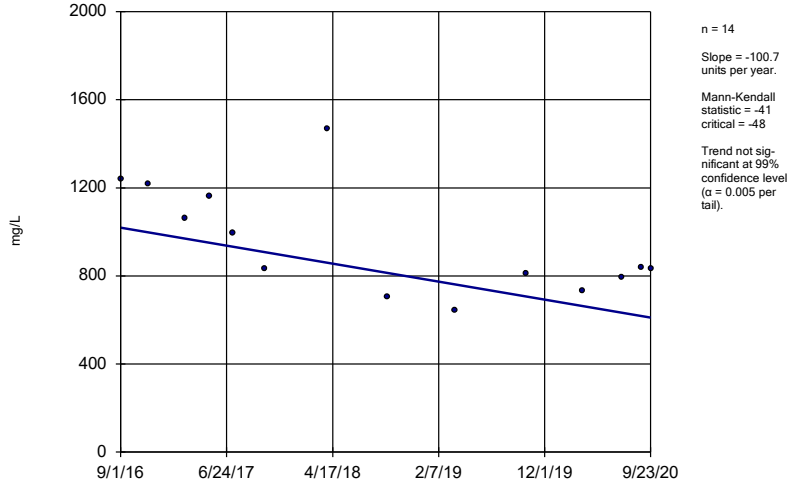
Mann-Kendall statistic = 14
critical = 53

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Total Dissolved Solids Analysis Run 11/25/2020 12:07 PM View: Trend Tests
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Sen's Slope Estimator

YGWC-46A



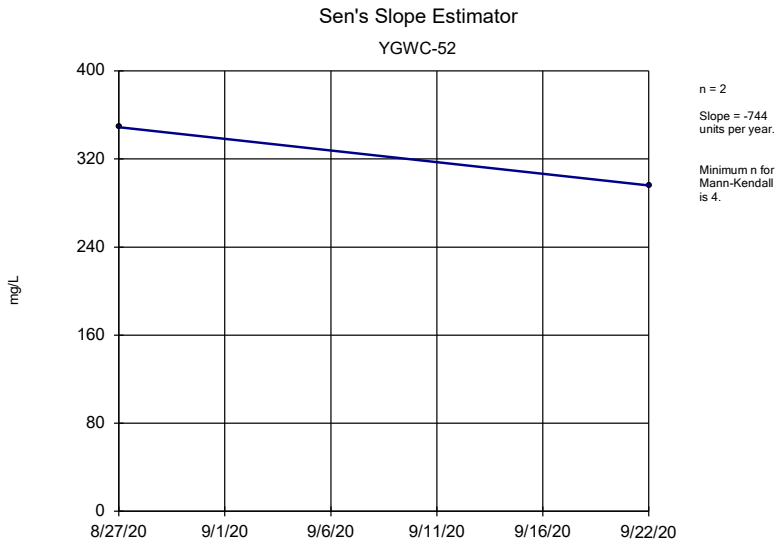
n = 14

Slope = -100.7 units per year.

Mann-Kendall statistic = -41
critical = -48

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Total Dissolved Solids Analysis Run 11/25/2020 12:07 PM View: Trend Tests
Plant Yates Client: Southern Company Data: Yates Ash Pond1



Constituent: Total Dissolved Solids Analysis Run 11/25/2020 12:07 PM View: Trend Tests

Plant Yates Client: Southern Company Data: Yates Ash Pond1

FIGURE F.

Upper Tolerance Limit Summary Table

Plant Yates Client: Southern Company Data: Yates Ash Pond1 Printed 11/25/2020, 7:44 PM

Constituent	Upper Lim.	Lower Lim.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	0.0047	n/a	n/a	280	n/a	n/a	86.43	n/a	n/a	NaN	NP Inter(NDs)
Arsenic (mg/L)	0.005	n/a	n/a	328	n/a	n/a	77.13	n/a	n/a	NaN	NP Inter(NDs)
Barium (mg/L)	0.071	n/a	n/a	328	n/a	n/a	3.354	n/a	n/a	NaN	NP Inter(normality)
Beryllium (mg/L)	0.003	n/a	n/a	312	n/a	n/a	83.01	n/a	n/a	NaN	NP Inter(NDs)
Cadmium (mg/L)	0.0025	n/a	n/a	313	n/a	n/a	96.17	n/a	n/a	NaN	NP Inter(NDs)
Chromium (mg/L)	0.01	n/a	n/a	280	n/a	n/a	77.14	n/a	n/a	NaN	NP Inter(NDs)
Cobalt (mg/L)	0.035	n/a	n/a	326	n/a	n/a	69.63	n/a	n/a	NaN	NP Inter(NDs)
Combined Radium 226 + 228 (pCi/L)	6.92	n/a	n/a	306	n/a	n/a	0	n/a	n/a	NaN	NP Inter(normality)
Fluoride (mg/L)	0.68	n/a	n/a	327	n/a	n/a	68.5	n/a	n/a	NaN	NP Inter(NDs)
Lead (mg/L)	0.005	n/a	n/a	282	n/a	n/a	85.82	n/a	n/a	NaN	NP Inter(NDs)
Lithium (mg/L)	0.03	n/a	n/a	307	n/a	n/a	28.34	n/a	n/a	NaN	NP Inter(normality)
Mercury (mg/L)	0.0005	n/a	n/a	251	n/a	n/a	92.43	n/a	n/a	NaN	NP Inter(NDs)
Molybdenum (mg/L)	0.014	n/a	n/a	272	n/a	n/a	59.56	n/a	n/a	NaN	NP Inter(NDs)
Selenium (mg/L)	0.01	n/a	n/a	311	n/a	n/a	91	n/a	n/a	NaN	NP Inter(NDs)
Thallium (mg/L)	0.001	n/a	n/a	281	n/a	n/a	96.44	n/a	n/a	NaN	NP Inter(NDs)

FIGURE G.

YATES ASH POND 1 GWPS					
Constituent Name	**MCL**	**CCR-Rule Specified**	**Background Limit**	**Federal GWPS**	**State GWPS**
Antimony, Total (mg/L)	0.006		0.0047	0.006	0.006
Arsenic, Total (mg/L)	0.01		0.005	0.01	0.01
Barium, Total (mg/L)	2		0.071	2	2
Beryllium, Total (mg/L)	0.004		0.003	0.004	0.004
Cadmium, Total (mg/L)	0.005		0.0025	0.005	0.005
Chromium, Total (mg/L)	0.1		0.01	0.1	0.1
Cobalt, Total (mg/L)		0.006	0.035	0.035	0.035
Combined Radium, Total (pCi/L)	5		6.9	6.9	6.9
Fluoride, Total (mg/L)	4		0.68	4	4
Lead, Total (mg/L)		0.015	0.005	0.015	0.005
Lithium, Total (mg/L)		0.04	0.03	0.04	0.03
Mercury, Total (mg/L)	0.002		0.0005	0.002	0.002
Molybdenum, Total (mg/L)		0.1	0.014	0.1	0.014
Selenium, Total (mg/L)	0.05		0.01	0.05	0.05
Thallium, Total (mg/L)	0.002		0.001	0.002	0.002

**Grey cell indicates Background Limit is higher than MCL or CCR Rule Specified Level*

**MCL = Maximum Contaminant Level*

**CCR = Coal Combustion Residual*

**GWPS = Groundwater Protection Standard*

FIGURE H.

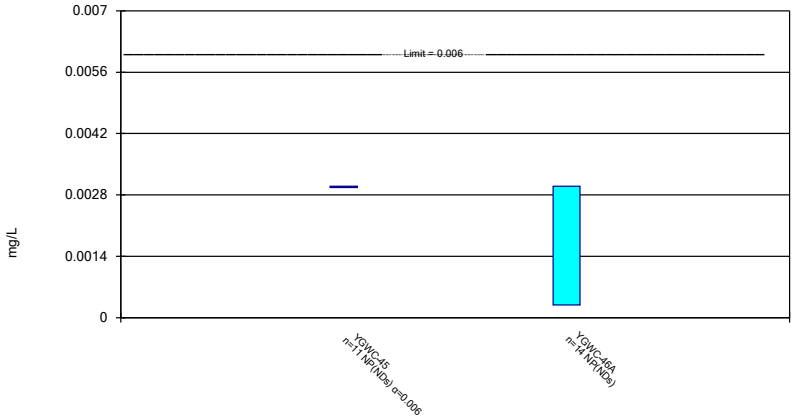
Federal Confidence Intervals Summary - All Results (No Significant)

Plant Yates Client: Southern Company Data: Yates Ash Pond1 Printed 12/1/2020, 6:31 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	YGWC-45	0.003	0.003	0.006	No	11	0.002882	0.000392	90.91	None	No	0.006	NP (NDs)
Antimony (mg/L)	YGWC-46A	0.003	0.00029	0.006	No	14	0.002806	0.0007243	92.86	None	No	0.01	NP (NDs)
Arsenic (mg/L)	YGWC-44	0.005	0.0006	0.01	No	13	0.003356	0.002167	61.54	None	No	0.01	NP (NDs)
Arsenic (mg/L)	YGWC-45	0.005	0.00061	0.01	No	13	0.00367	0.002077	69.23	None	No	0.01	NP (NDs)
Arsenic (mg/L)	YGWC-46A	0.005	0.00079	0.01	No	16	0.002269	0.001913	31.25	None	No	0.01	NP (normality)
Barium (mg/L)	YGWC-44	0.118	0.0995	2	No	13	0.1088	0.01246	0	None	No	0.01	Param.
Barium (mg/L)	YGWC-45	0.07362	0.05907	2	No	13	0.06635	0.009784	0	None	No	0.01	Param.
Barium (mg/L)	YGWC-46A	0.04092	0.02908	2	No	16	0.035	0.009106	0	None	No	0.01	Param.
Barium (mg/L)	YGWC-52	0.021	0.019	2	No	4	0.02	0.001155	0	None	No	0.0625	NP (normality)
Cadmium (mg/L)	YGWC-46A	0.0025	0.00012	0.005	No	14	0.001989	0.001016	78.57	None	No	0.01	NP (NDs)
Chromium (mg/L)	YGWC-45	0.01	0.0006	0.1	No	11	0.007935	0.003813	72.73	None	No	0.006	NP (NDs)
Chromium (mg/L)	YGWC-52	0.01	0.00073	0.1	No	4	0.005397	0.005315	50	None	No	0.0625	NP (normality)
Cobalt (mg/L)	YGWC-44	0.0065	0.0017	0.035	No	13	0.003446	0.002867	7.692	None	No	0.01	NP (normality)
Cobalt (mg/L)	YGWC-45	0.0008953	0.000673	0.035	No	12	0.0007842	0.0001416	0	None	No	0.01	Param.
Cobalt (mg/L)	YGWC-46A	0.03023	0.009559	0.035	No	16	0.01989	0.01588	0	None	No	0.01	Param.
Cobalt (mg/L)	YGWC-52	0.002527	0.001223	0.035	No	4	0.001875	0.0002872	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	YGWC-44	1.302	0.3512	6.9	No	13	0.8268	0.6396	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	YGWC-45	1.599	0.8649	6.9	No	13	1.232	0.4939	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	YGWC-46A	1.698	0.9035	6.9	No	16	1.301	0.6102	0	None	No	0.01	Param.
Fluoride, total (mg/L)	YGWC-44	0.12	0.07	4	No	14	0.095	0.01871	78.57	None	No	0.01	NP (NDs)
Fluoride, total (mg/L)	YGWC-45	0.22	0.082	4	No	14	0.182	0.1743	28.57	None	No	0.01	NP (normality)
Fluoride, total (mg/L)	YGWC-46A	0.12	0.08	4	No	17	0.1081	0.07082	29.41	None	No	0.01	NP (normality)
Lead (mg/L)	YGWC-45	0.005	0.005	0.015	No	11	0.004555	0.001477	90.91	None	No	0.006	NP (NDs)
Lead (mg/L)	YGWC-46A	0.005	0.000044	0.015	No	14	0.004646	0.001325	92.86	None	No	0.01	NP (NDs)
Lead (mg/L)	YGWC-52	0.005	0.00006	0.015	No	4	0.001304	0.002464	25	None	No	0.0625	NP (normality)
Lithium (mg/L)	YGWC-44	0.01352	0.01226	0.04	No	13	0.01289	0.000846	0	None	No	0.01	Param.
Lithium (mg/L)	YGWC-45	0.01459	0.01229	0.04	No	13	0.01348	0.001628	0	None	ln(x)	0.01	Param.
Lithium (mg/L)	YGWC-46A	0.01136	0.008529	0.04	No	16	0.009944	0.002174	0	None	No	0.01	Param.
Lithium (mg/L)	YGWC-52	0.005153	0.003797	0.04	No	4	0.004475	0.0002986	0	None	No	0.01	Param.
Mercury (mg/L)	YGWC-44	0.0005	0.0005	0.002	No	10	0.000456	0.0001391	90	None	No	0.011	NP (NDs)
Mercury (mg/L)	YGWC-45	0.0005	0.0005	0.002	No	10	0.0004571	0.0001357	90	None	No	0.011	NP (NDs)
Mercury (mg/L)	YGWC-46A	0.0005	0.00007	0.002	No	12	0.0004642	0.0001241	91.67	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	YGWC-44	0.01	0.0005	0.1	No	13	0.009269	0.002635	92.31	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	YGWC-45	0.01	0.0012	0.1	No	13	0.003462	0.003743	23.08	None	No	0.01	NP (normality)
Molybdenum (mg/L)	YGWC-46A	0.002456	0.001391	0.1	No	16	0.003544	0.00329	18.75	Kaplan-Meier	ln(x)	0.01	Param.
Thallium (mg/L)	YGWC-44	0.001	0.00008	0.002	No	12	0.0009233	0.0002656	91.67	None	No	0.01	NP (NDs)
Thallium (mg/L)	YGWC-46A	0.001	0.000073	0.002	No	14	0.0009338	0.0002478	92.86	None	No	0.01	NP (NDs)

Non-Parametric Confidence Interval

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



Constituent: Antimony Analysis Run 12/1/2020 6:30 PM View: Appendix IV
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Non-Parametric Confidence Interval

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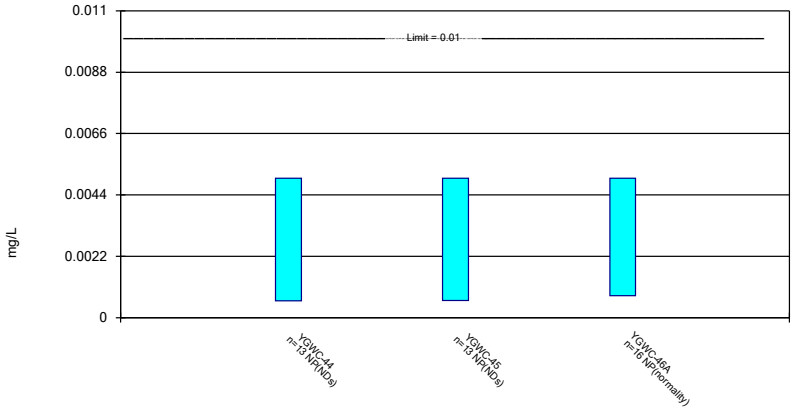
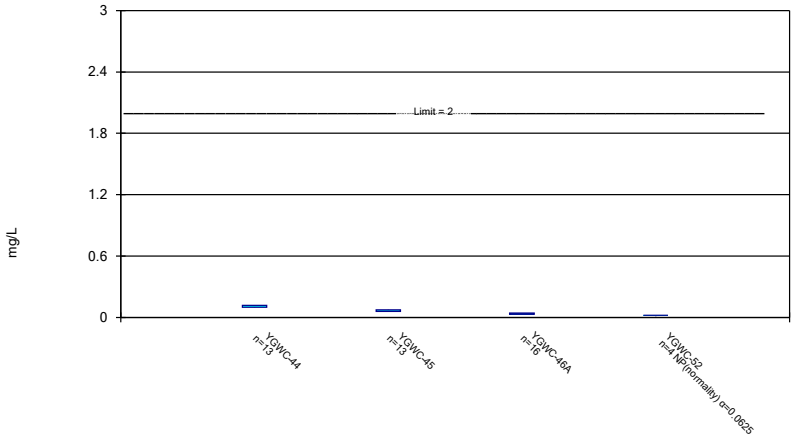


Constituent: Arsenic Analysis Run 12/1/2020 6:30 PM View: Appendix IV
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Parametric and Non-Parametric (NP) Confidence Interval

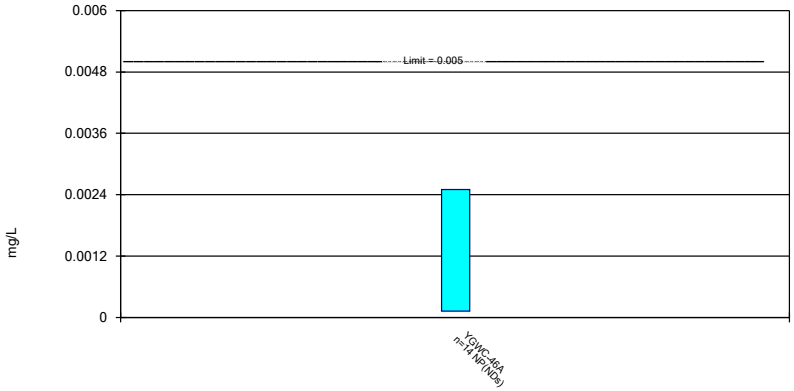
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Barium Analysis Run 12/1/2020 6:30 PM View: Appendix IV
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Non-Parametric Confidence Interval

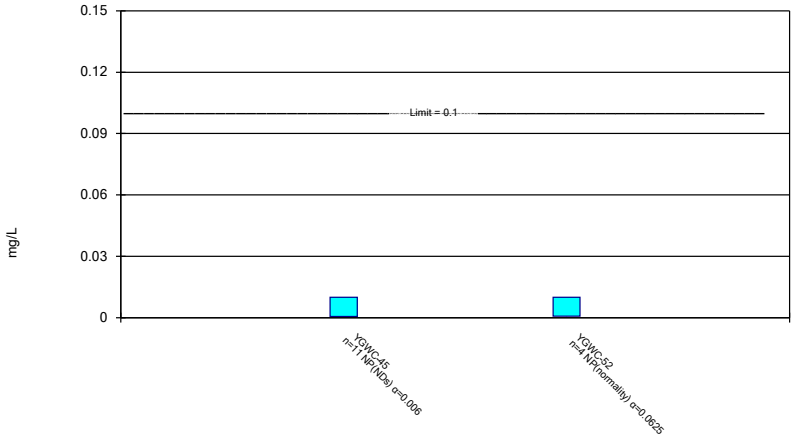
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Cadmium Analysis Run 12/1/2020 6:30 PM View: Appendix IV
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Non-Parametric Confidence Interval

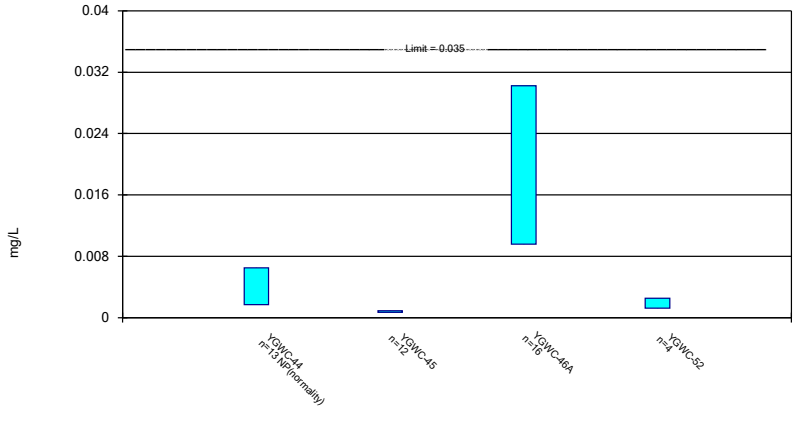
Compliance Limit is not exceeded.



Constituent: Chromium Analysis Run 12/1/2020 6:30 PM View: Appendix IV
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Parametric and Non-Parametric (NP) Confidence Interval

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



Constituent: Cobalt Analysis Run 12/1/2020 6:30 PM View: Appendix IV
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Parametric Confidence Interval

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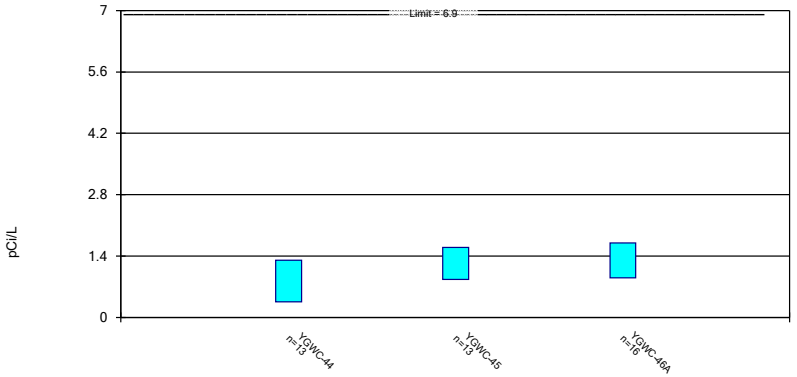
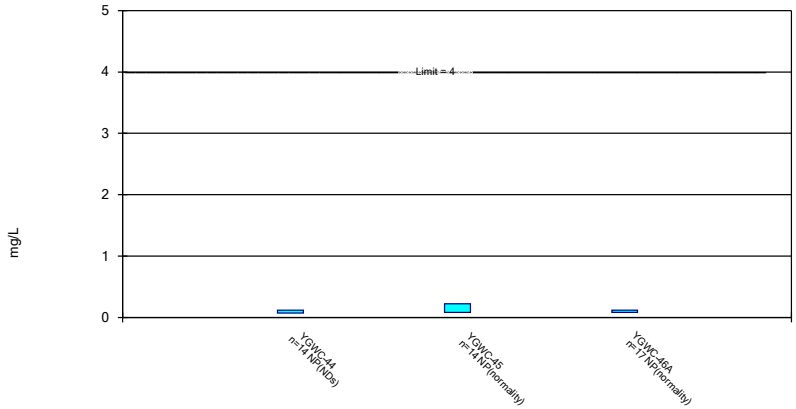


Constituent: Combined Radium 226 + 228 Analysis Run 12/1/2020 6:30 PM View: Appendix IV
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Non-Parametric Confidence Interval

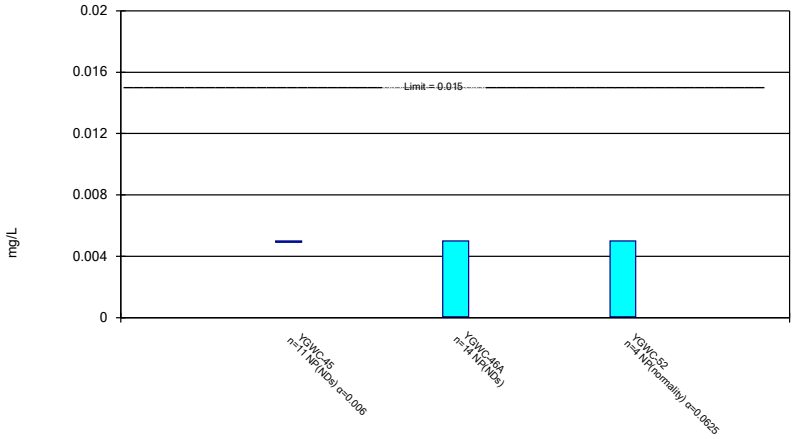
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Fluoride, total Analysis Run 12/1/2020 6:30 PM View: Appendix IV
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Non-Parametric Confidence Interval

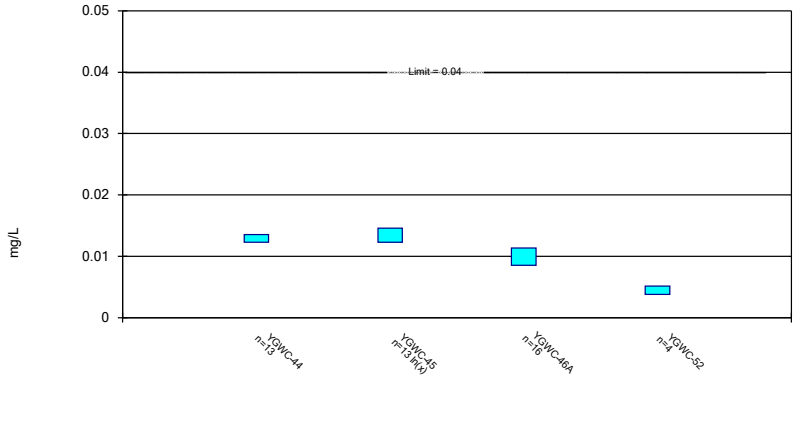
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted.



Constituent: Lead Analysis Run 12/1/2020 6:30 PM View: Appendix IV
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Parametric Confidence Interval

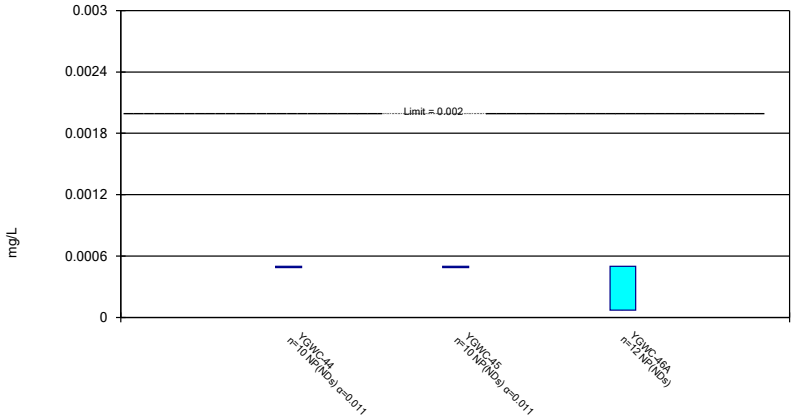
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Lithium Analysis Run 12/1/2020 6:30 PM View: Appendix IV
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Non-Parametric Confidence Interval

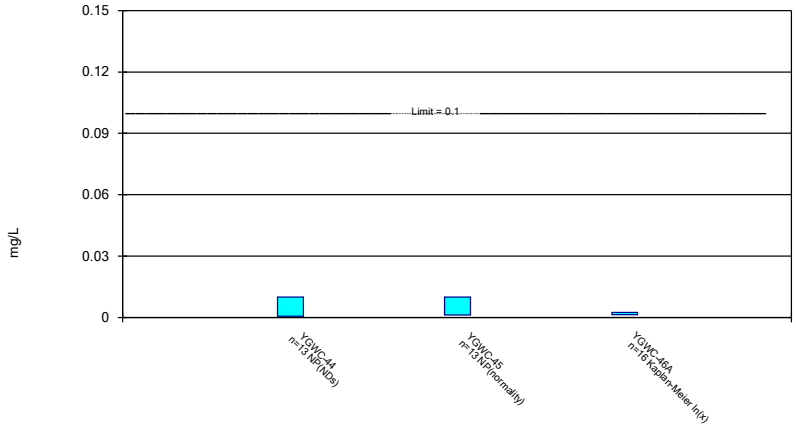
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted.



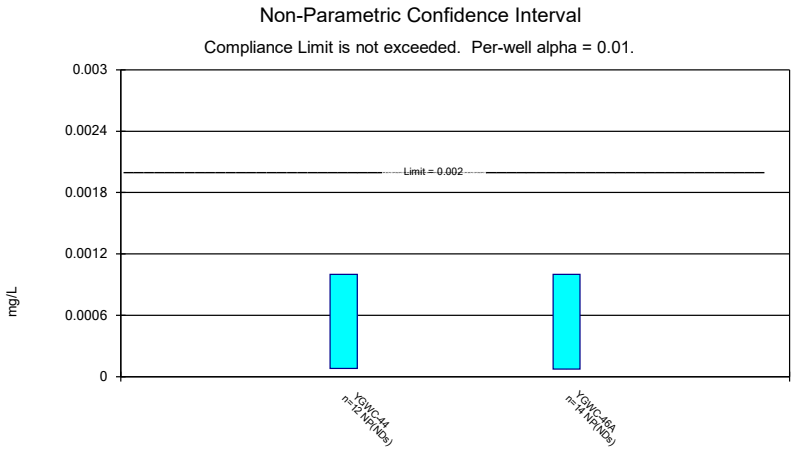
Constituent: Mercury Analysis Run 12/1/2020 6:30 PM View: Appendix IV
Plant Yates Client: Southern Company Data: Yates Ash Pond1

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: Molybdenum Analysis Run 12/1/2020 6:30 PM View: Appendix IV
Plant Yates Client: Southern Company Data: Yates Ash Pond1



Constituent: Thallium Analysis Run 12/1/2020 6:30 PM View: Appendix IV

Plant Yates Client: Southern Company Data: Yates Ash Pond1

FIGURE I.

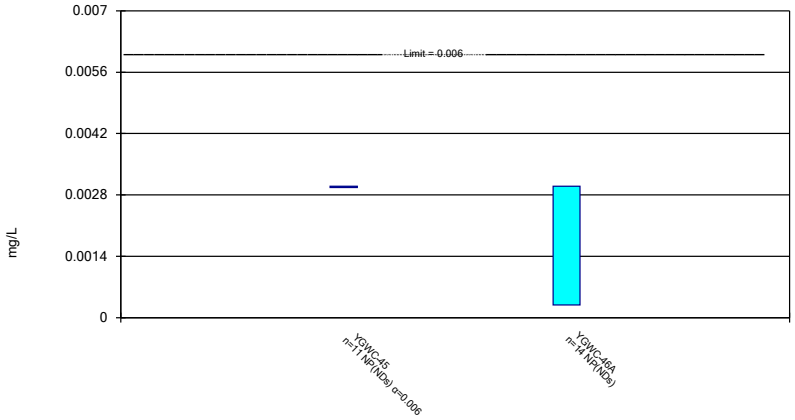
State Confidence Intervals Summary - All Results (No Significant)

Plant Yates Client: Southern Company Data: Yates Ash Pond1 Printed 12/1/2020, 6:28 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	YGWC-45	0.003	0.003	0.006	No	11	0.002882	0.000392	90.91	None	No	0.006	NP (NDs)
Antimony (mg/L)	YGWC-46A	0.003	0.00029	0.006	No	14	0.002806	0.0007243	92.86	None	No	0.01	NP (NDs)
Arsenic (mg/L)	YGWC-44	0.005	0.0006	0.01	No	13	0.003356	0.002167	61.54	None	No	0.01	NP (NDs)
Arsenic (mg/L)	YGWC-45	0.005	0.00061	0.01	No	13	0.00367	0.002077	69.23	None	No	0.01	NP (NDs)
Arsenic (mg/L)	YGWC-46A	0.005	0.00079	0.01	No	16	0.002269	0.001913	31.25	None	No	0.01	NP (normality)
Barium (mg/L)	YGWC-44	0.118	0.0995	2	No	13	0.1088	0.01246	0	None	No	0.01	Param.
Barium (mg/L)	YGWC-45	0.07362	0.05907	2	No	13	0.06635	0.009784	0	None	No	0.01	Param.
Barium (mg/L)	YGWC-46A	0.04092	0.02908	2	No	16	0.035	0.009106	0	None	No	0.01	Param.
Barium (mg/L)	YGWC-52	0.021	0.019	2	No	4	0.02	0.001155	0	None	No	0.0625	NP (normality)
Cadmium (mg/L)	YGWC-46A	0.0025	0.00012	0.005	No	14	0.001989	0.001016	78.57	None	No	0.01	NP (NDs)
Chromium (mg/L)	YGWC-45	0.01	0.0006	0.1	No	11	0.007935	0.003813	72.73	None	No	0.006	NP (NDs)
Chromium (mg/L)	YGWC-52	0.01	0.00073	0.1	No	4	0.005397	0.005315	50	None	No	0.0625	NP (normality)
Cobalt (mg/L)	YGWC-44	0.0065	0.0017	0.035	No	13	0.003446	0.002867	7.692	None	No	0.01	NP (normality)
Cobalt (mg/L)	YGWC-45	0.0008953	0.000673	0.035	No	12	0.0007842	0.0001416	0	None	No	0.01	Param.
Cobalt (mg/L)	YGWC-46A	0.03023	0.009559	0.035	No	16	0.01989	0.01588	0	None	No	0.01	Param.
Cobalt (mg/L)	YGWC-52	0.002527	0.001223	0.035	No	4	0.001875	0.0002872	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	YGWC-44	1.302	0.3512	6.9	No	13	0.8268	0.6396	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	YGWC-45	1.599	0.8649	6.9	No	13	1.232	0.4939	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	YGWC-46A	1.698	0.9035	6.9	No	16	1.301	0.6102	0	None	No	0.01	Param.
Fluoride, total (mg/L)	YGWC-44	0.12	0.07	4	No	14	0.095	0.01871	78.57	None	No	0.01	NP (NDs)
Fluoride, total (mg/L)	YGWC-45	0.22	0.082	4	No	14	0.182	0.1743	28.57	None	No	0.01	NP (normality)
Fluoride, total (mg/L)	YGWC-46A	0.12	0.08	4	No	17	0.1081	0.07082	29.41	None	No	0.01	NP (normality)
Lead (mg/L)	YGWC-45	0.005	0.005	0.005	No	11	0.004555	0.001477	90.91	None	No	0.006	NP (NDs)
Lead (mg/L)	YGWC-46A	0.005	0.000044	0.005	No	14	0.004646	0.001325	92.86	None	No	0.01	NP (NDs)
Lead (mg/L)	YGWC-52	0.005	0.00006	0.005	No	4	0.001304	0.002464	25	None	No	0.0625	NP (normality)
Lithium (mg/L)	YGWC-44	0.01352	0.01226	0.03	No	13	0.01289	0.000846	0	None	No	0.01	Param.
Lithium (mg/L)	YGWC-45	0.01459	0.01229	0.03	No	13	0.01348	0.001628	0	None	ln(x)	0.01	Param.
Lithium (mg/L)	YGWC-46A	0.01136	0.008529	0.03	No	16	0.009944	0.002174	0	None	No	0.01	Param.
Lithium (mg/L)	YGWC-52	0.005153	0.003797	0.03	No	4	0.004475	0.0002986	0	None	No	0.01	Param.
Mercury (mg/L)	YGWC-44	0.0005	0.0005	0.002	No	10	0.000456	0.0001391	90	None	No	0.011	NP (NDs)
Mercury (mg/L)	YGWC-45	0.0005	0.0005	0.002	No	10	0.0004571	0.0001357	90	None	No	0.011	NP (NDs)
Mercury (mg/L)	YGWC-46A	0.0005	0.00007	0.002	No	12	0.0004642	0.0001241	91.67	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	YGWC-44	0.01	0.0005	0.014	No	13	0.009269	0.002635	92.31	None	No	0.01	NP (NDs)
Molybdenum (mg/L)	YGWC-45	0.01	0.0012	0.014	No	13	0.003462	0.003743	23.08	None	No	0.01	NP (normality)
Molybdenum (mg/L)	YGWC-46A	0.002456	0.001391	0.014	No	16	0.003544	0.00329	18.75	Kaplan-Meier	ln(x)	0.01	Param.
Thallium (mg/L)	YGWC-44	0.001	0.00008	0.002	No	12	0.0009233	0.0002656	91.67	None	No	0.01	NP (NDs)
Thallium (mg/L)	YGWC-46A	0.001	0.000073	0.002	No	14	0.0009338	0.0002478	92.86	None	No	0.01	NP (NDs)

Non-Parametric Confidence Interval

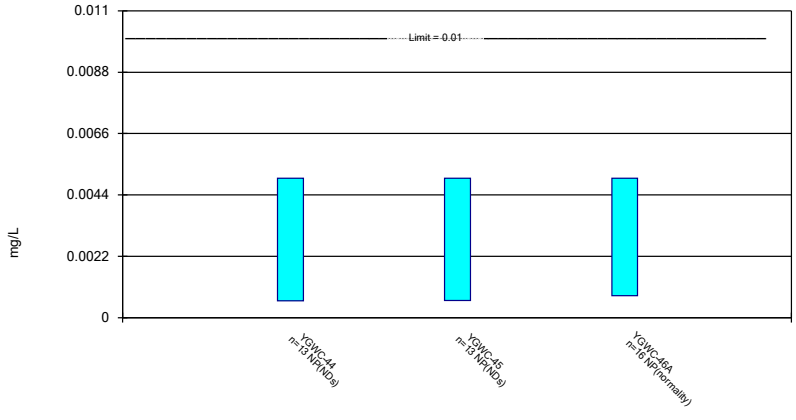
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted.



Constituent: Antimony Analysis Run 12/1/2020 6:26 PM View: Appendix IV
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Non-Parametric Confidence Interval

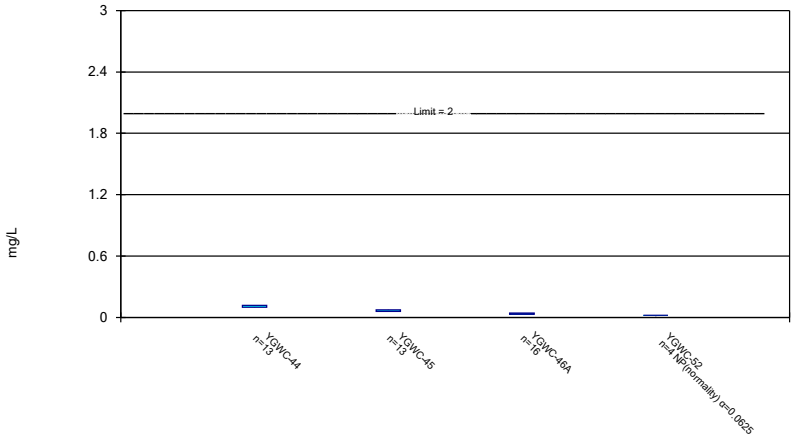
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Arsenic Analysis Run 12/1/2020 6:26 PM View: Appendix IV
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Parametric and Non-Parametric (NP) Confidence Interval

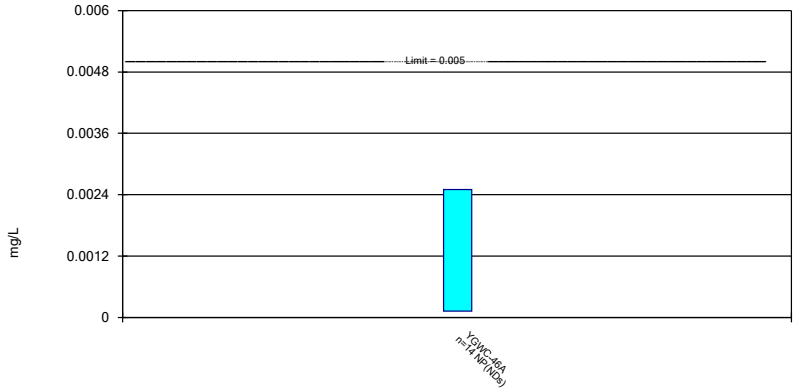
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Barium Analysis Run 12/1/2020 6:26 PM View: Appendix IV
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Non-Parametric Confidence Interval

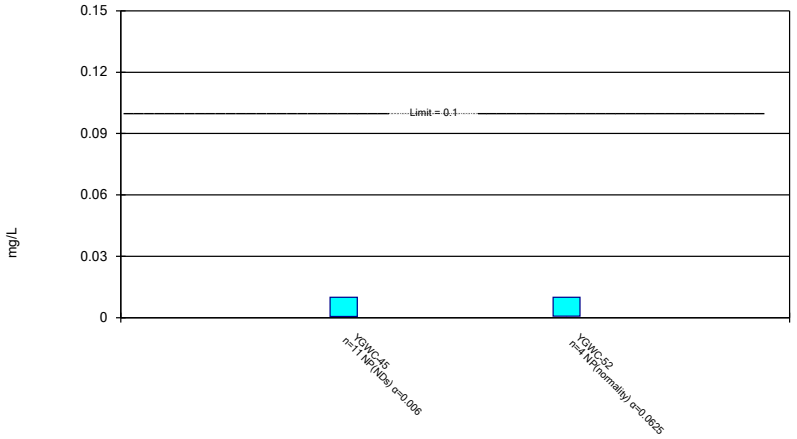
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Cadmium Analysis Run 12/1/2020 6:26 PM View: Appendix IV
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Non-Parametric Confidence Interval

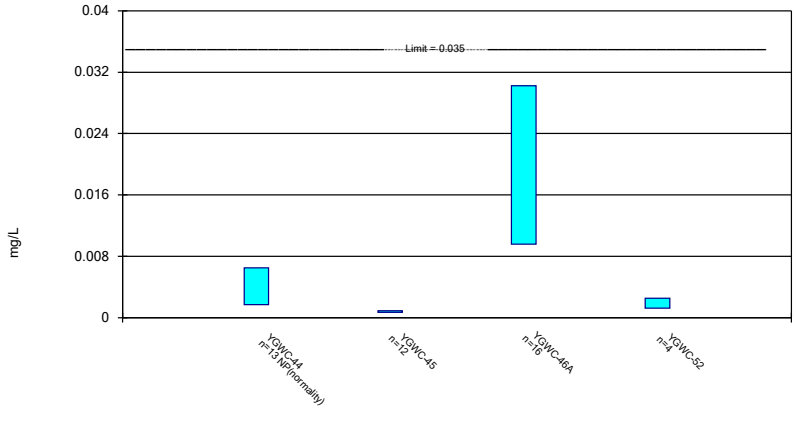
Compliance Limit is not exceeded.



Constituent: Chromium Analysis Run 12/1/2020 6:26 PM View: Appendix IV
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Parametric and Non-Parametric (NP) Confidence Interval

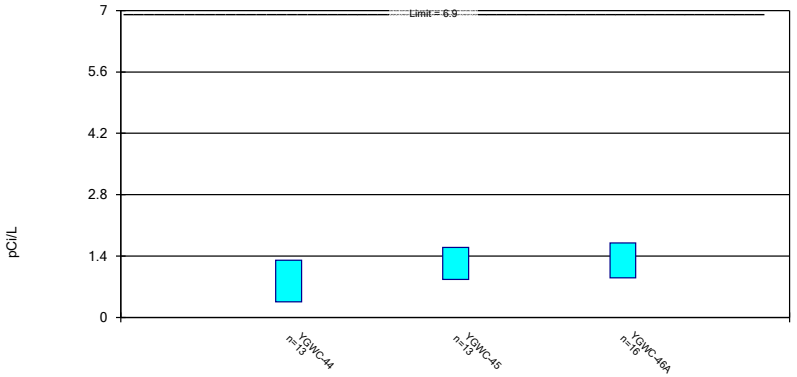
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Cobalt Analysis Run 12/1/2020 6:26 PM View: Appendix IV
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Parametric Confidence Interval

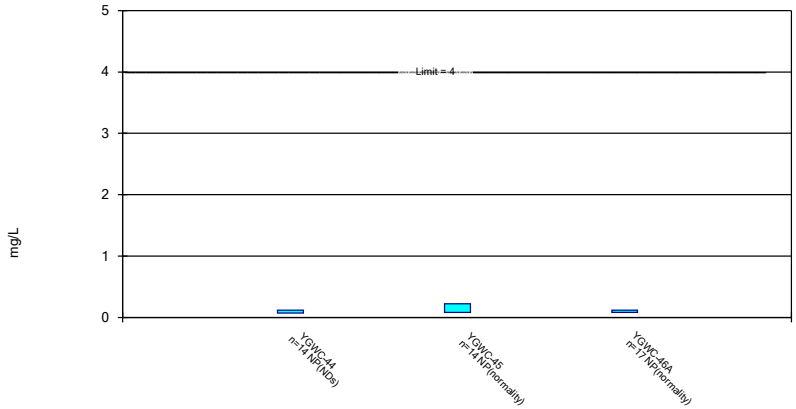
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Combined Radium 226 + 228 Analysis Run 12/1/2020 6:26 PM View: Appendix IV
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Non-Parametric Confidence Interval

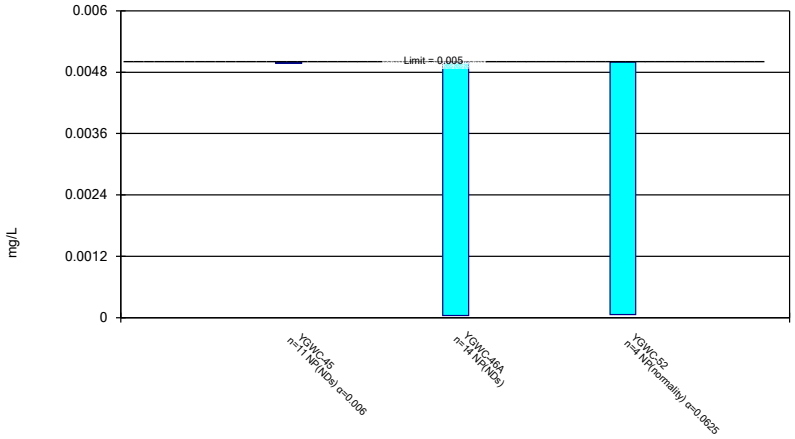
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Fluoride, total Analysis Run 12/1/2020 6:26 PM View: Appendix IV
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Non-Parametric Confidence Interval

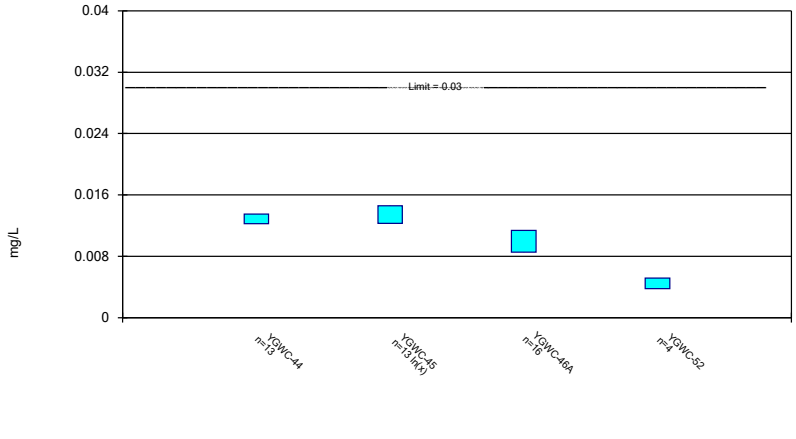
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted.



Constituent: Lead Analysis Run 12/1/2020 6:26 PM View: Appendix IV
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Parametric Confidence Interval

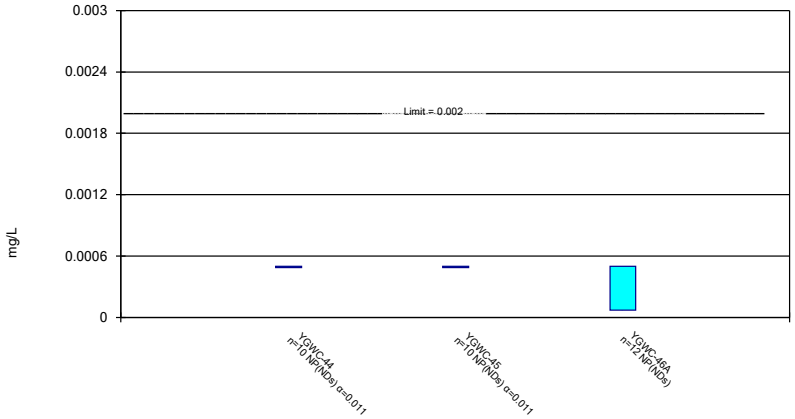
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Lithium Analysis Run 12/1/2020 6:26 PM View: Appendix IV
Plant Yates Client: Southern Company Data: Yates Ash Pond1

Non-Parametric Confidence Interval

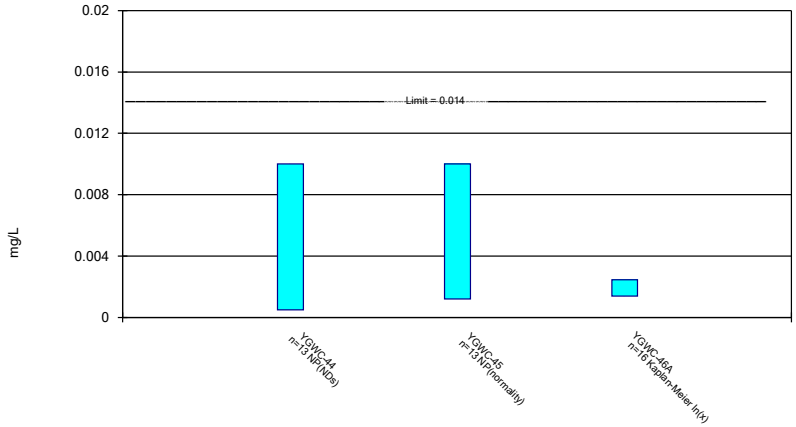
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted.



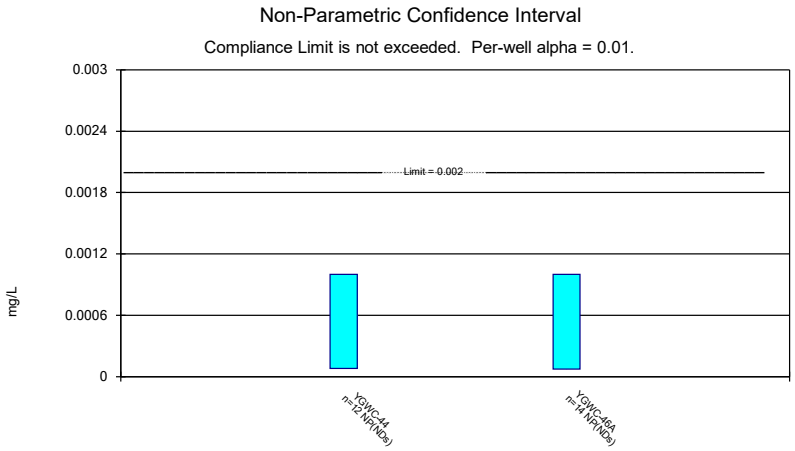
Constituent: Mercury Analysis Run 12/1/2020 6:26 PM View: Appendix IV
Plant Yates Client: Southern Company Data: Yates Ash Pond1

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: Molybdenum Analysis Run 12/1/2020 6:26 PM View: Appendix IV
Plant Yates Client: Southern Company Data: Yates Ash Pond1



Constituent: Thallium Analysis Run 12/1/2020 6:26 PM View: Appendix IV

Plant Yates Client: Southern Company Data: Yates Ash Pond1

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