



**REPORT**

# 2020 Semi-Annual Groundwater Monitoring and Corrective Action Report

*Georgia Power Company - Plant Branch  
Ash Pond E*

Submitted to:



**Georgia Power Company**

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Submitted by:

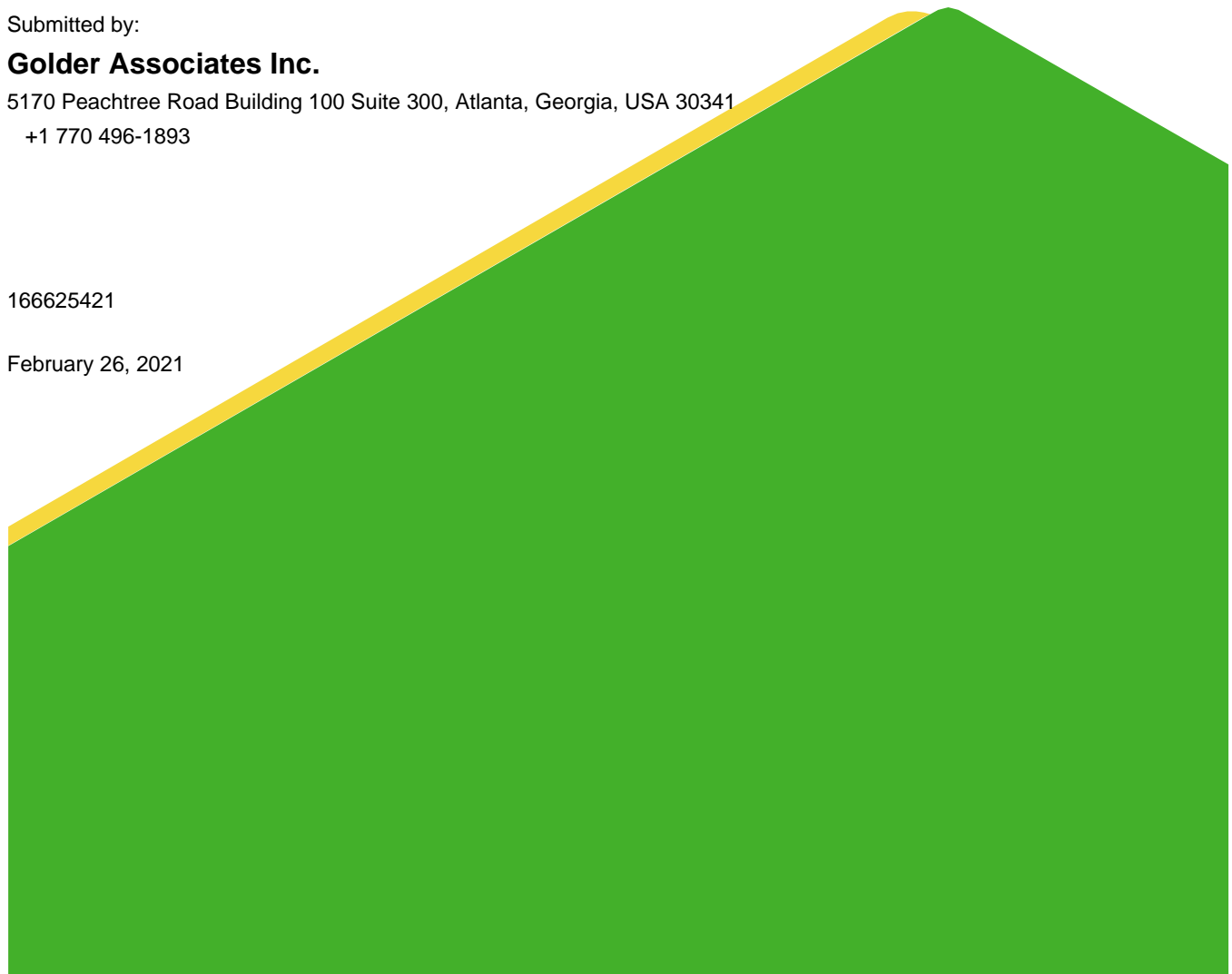
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## Summary

This 2020 Semi-Annual Groundwater Monitoring & Corrective Action Report, Georgia Power Company - Plant Branch Ash Pond E (AP-E), Milledgeville, Putnam County, Georgia, report provides the status of groundwater monitoring and corrective program from August through December 2020. Groundwater monitoring and reporting for AP-E is performed by Golder Associates Inc. (Golder) in accordance with the United States Environmental Protection Agency (US EPA) Coal Combustion Residual (CCR) Rule published in the Code of Federal Regulations Title 40 Part 257 (40 CFR Part 257, Subpart D) dated April 17, 2015 and revised July 2018 40 CFR § 257.90 through § 257.98. This summary was prepared by Golder on behalf of Georgia Power to meet the requirements listed in Part A, Section 6<sup>1</sup> of the US EPA CCR rule (40 Code of Federal Regulations [CFR] 257 Subpart D). As required in 40 CFR § 257.90(e), this Annual Report describes the status of the groundwater monitoring program, summarizes key actions completed, describes any problems encountered, discusses actions to resolve the problems, and presents projected key activities for the upcoming year for AP-BCD. Other CCR unit (AP-BCD) on-site at Plant Branch are reported separately.

Plant Branch formerly operated as a coal-fired power plant since the 1960s until its retirement in 2015. Plant Branch is no longer active and is currently decommissioned. Located approximately 8 miles north of Milledgeville in Putnam County (1100 Milledgeville Road, Milledgeville, GA 31024), the property occupies approximately 3,200 acres and is bounded on the south and east by Lake Sinclair.

Groundwater at the Site is monitored using a monitoring system comprised of upgradient and downgradient wells for each CCR Unit. AP-E network consists of five (5) upgradient and seven (7) downgradient wells installed to meet federal and state monitoring requirements. Routine sampling and reporting for AP-E began after the background groundwater conditions were established between 2016 and 2018. Based on groundwater quality, an assessment monitoring program was established on November 13, 2019. During the 2020 annual reporting period, the Site remained in assessment monitoring.

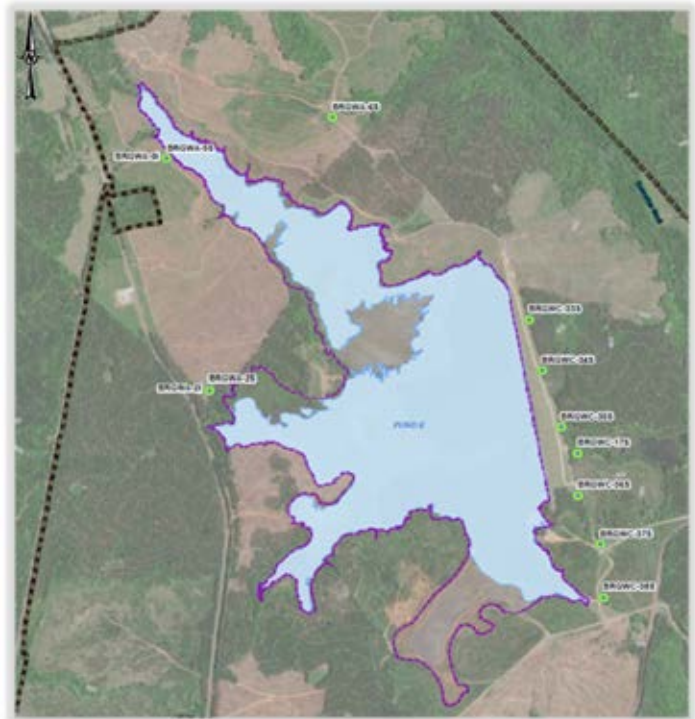


Figure 1: Plant Branch

<sup>1</sup> 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

Pursuant to the options of 40 CFR 257.95 as adopted by 391-3-4-.10, an Alternate Source Demonstration (ASD) was prepared in response to statistically significant levels (SSLs) of beryllium and cobalt in samples from groundwater monitoring wells. The ASD was submitted to the Georgia Environmental Protection Division (GA EPD) on July 28, 2020 (Golder, 2020).

Groundwater elevation measurements were recorded at the site monitoring wells prior to each sampling event. The elevation data were used to confirm the groundwater flow direction, and to confirm that the groundwater monitoring well network for the CCR units remains sufficient to monitor groundwater downgradient of the unit.

### 2020 Semi-Annual Groundwater Monitoring Activities

Groundwater monitoring sampling events for AP-E were conducted in August (annual) and September 2020 (semi-annual). Groundwater samples were collected and analyzed for Appendix III and Appendix IV required monitoring parameters from each of the compliance monitoring wells.

Analytical data from the September 2020 monitoring event has been statistically analyzed in accordance with the site's certified statistical analysis method. For the September 2020 semi-annual monitoring event, statistical analyses indicate statistically significant increases (SSIs) for Appendix III constituents above the statistical limits and SSLs of Appendix IV constituents above the groundwater protection standards as summarized below.

Appendix III Constituent	September 2020
Boron	BRGWC-33S, BRGWC-34S, BRGWC-35S, BRGWC-36S, BRGWC-38S
Calcium	BRGWC-33S, BRGWC-34S, BRGWC-35S, BRGWC-36S, BRGWC-38S
Chloride	BRGWC-34S, BRGWC-35S, BRGWC-36S, BRGWC-38S
Fluoride	BRGWC-38S
pH	BRGWC-33S, BRGWC-34S, BRGWC-36S, BRGWC-38S
Sulfate	BRGWC-33S, BRGWC-34S, BRGWC-35S, BRGWC-36S, BRGWC-38S
TDS	BRGWC-34S, BRGWC-35S, BRGWC-36S, BRGWC-38S
Appendix IV Constituent	September 2020
Beryllium	BRGWC-38S
Cobalt	BRGWC-33S, BRGWC-38S

### Alternate Source Demonstration

An ASD (Golder, 2020) was prepared in response to SSLs identified for beryllium and cobalt in groundwater monitoring wells. The evaluation demonstrates that statistically significant levels of beryllium and cobalt identified in groundwater are due to the presence of naturally-occurring beryllium and cobalt present in soils and bedrock, and not caused by a release from the CCR unit. The ASD was submitted on to the GA EPD on July 28, 2020.

Georgia Power will continue routine groundwater monitoring and reporting at the Site. Reports will be posted to the website and provided to GA EPD semi-annually.

<sup>2</sup> Appendix III: boron, calcium, chloride, fluoride, pH, sulfate, and total dissolved solids

<sup>3</sup> Appendix IV: antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, fluoride, lead, lithium, mercury, molybdenum, combined radium (226 + 228), selenium, and thallium.

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## Certification Statement

This 2020 Semi-Annual Groundwater Monitoring & Corrective Action Report, Georgia Power Company Plant Branch Ash Pond E (AP-E) has been prepared in compliance with the Georgia Environmental Protection Division Rules for Solid Waste Management 391-3-4-.10(6)(a-c) by a qualified groundwater scientist with Golder Associates Inc.

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## 1.0 INTRODUCTION

In accordance with the Georgia Environmental Protection Division (GA EPD) Rules of Solid Waste Management 391-3-4-.10(6)(a)-(c), this *2020 Semi-Annual Groundwater Monitoring and Corrective Action Report* has been prepared to document groundwater monitoring activities conducted at Georgia Power Company's (Georgia Power) Plant Branch Ash Pond E, referred to as AP-E. To specify groundwater monitoring requirements, GA EPD Rule 391-3-4-.10(6)(a) incorporates by reference the United States Environmental Protection Agency (US EPA) Coal Combustion Residuals (CCR) Rule 40 Code of Federal Regulations (CFR) § 257.90 through 257.91 and 257.93 through 257.94. For ease of reference, the US EPA CCR Rules are cited within this report, however, Plant Branch ceased producing electricity prior to April 2015. Therefore, Ash Pond E is not subject to the USEPA CCR Rule.

This report documents the activities completed July 1 through December 31, 2020 following the requirements of the site's groundwater monitoring program and in accordance with § 257.90(e) and GA EPD Rule 391-3-4-.10(6)(a).

Two monitoring events were conducted during this monitoring period - an initial assessment monitoring event conducted in August 2020 and the subsequent semi-annual assessment monitoring event conducted in September 2020. This report documents the activities completed at Branch AP-E through the second half of 2020. Activities completed at Branch AP-BCD are reported under separate cover.

### 1.1 Site Description and Background

Plant Branch is located in Putnam County, GA, approximately 8 miles north of Milledgeville. The property occupies approximately 3,200 acres and is bounded on the south and east by Lake Sinclair, which is an approximate 15,330-acre hydroelectric reservoir that was created in 1953 by the impoundment of the Oconee River. A site location map and a detailed site map is included as Figure 1.

Plant Branch formerly operated as a coal-fired power plant since the 1960s until its retirement in 2015. Plant Branch is no longer active and is currently decommissioned. During its operation, five ash ponds were used for management of the CCR on the plant property. These CCR ponds are identified as Ponds A, B, C, D, and E. Ash Pond A, the first ash pond constructed at the Site, was taken out of service in the late 1960s and was closed in April 2016 by the removal and relocation of its stored CCR to Ash Pond E. Ponds B, C, D, and E are currently inactive, and will be closed by removal by relocation of the stored CCR material to a proposed fully lined landfill located on the plant property. This report documents the groundwater monitoring program at Ash Pond E (AP-E).

Plant Branch ceased producing electricity prior to April 2015. Therefore, AP-E is not subject to the Federal CCR Rule. A CCR Unit Solid Waste Handling Permit application for AP-E was submitted to GA EPD in November 2018 and is currently under review.

### 1.2 Site Geology and Hydrogeologic Setting

The following section and subsections include a general description of regional geologic and hydrogeologic characteristics of formations that occur beneath the site. Information presented in this section is based on published literature, discussion with local geologic experts, and experience working in this geologic terrain.

The site is located within the Piedmont Physiographic Province of central Georgia, which is characterized by gently rolling hills and narrow valleys, with locally pronounced linear ridges. Overall, the property slopes gently east and south toward Beaverdam Creek and Lake Sinclair. The metamorphic and igneous rocks that underlie the

area have been subjected to physical and chemical weathering which has created a landscape dissected by creeks and streams forming a dendritic drainage pattern. These rocks are deeply weathered due to the humid climate and bedrock is typically overlain by a variably thick blanket of residual soils and saprolite. The overall depth of weathering in the Piedmont/Blue Ridge is generally about 20 to 60 feet; however, the depth of weathering along discontinuities and/or very feldspathic rock units may extend to depths greater than 100 feet. Because of such variations in rock types and structure, the depth of weathering can vary significantly over short horizontal distances.

The near surface conditions were determined based upon available boring and monitoring well installation logs. Based on our review of this information, micaceous, locally saprolitic soils, consisting primarily of clay, silty clay, silt, and sandy clay occur as a variably thick blanket of residuum overlying bedrock across most of the site. The thickness of the residual soil encountered in the borings is variable, ranging from approximately 11 feet to as much as 74 feet. Saprolitic soils and/or saprolitic rock vary in thickness across the site but are generally encountered at or near ground surface. Saprolitic rock is also considered to be transitionally weathered rock (TWR) or partially weathered rock (PWR), as defined by standard penetration test data, where available. Material overlying the top of rock surface, including residual soils, saprolite, and transitionally weathered rock, is collectively referred to as overburden or regolith.

### 1.3 Groundwater Monitoring Well Network

Pursuant to § 257.91 of the CCR rule and 391-3-4-.10(6), a groundwater monitoring system was installed within the uppermost aquifer at AP-E. Wells placed in upgradient and downgradient locations based on groundwater flow direction as determined by the potentiometric surface elevation contour maps.

A network of 12 monitoring wells were installed between 2014 to 2018 for groundwater monitoring in proximity to AP-E. Table 1, Monitoring Well Network Summary, includes the pertinent construction details for the AP-E monitoring well network at Plant Branch.

Based on the site hydrogeology, the monitoring system is designed to monitor groundwater flow in the overburden, the transition-zone, and the upper bedrock as a single inter-connected aquifer system. Wells suffixed with an “S” are installed in overburden (saprolitic soil), an “I” indicates transitionally weathered rock (transition zone), and “D” indicates upper bedrock. Groundwater in the overburden, partially weathered rock, fractured bedrock, and the materials comprise a single uppermost aquifer based on site hydrogeologic conditions.

## 2.0 GROUNDWATER MONITORING ACTIVITIES

The following section describes monitoring-related activities performed at the Site during the previous monitoring period (August through December 2020).

Pursuant to § 257.90(e)(3), Table 2, Groundwater Sampling Event Summary, presents a summary of groundwater sampling events completed for AP-E.

### 2.1 Monitoring Well Installation and Maintenance

There was no change to the certified groundwater monitoring system for the reporting period. The groundwater monitoring system has remained the same since July 2020. Monitoring well related activities were limited to visual inspection of well conditions prior to sampling, recording site conditions, and performing exterior maintenance to provide safe access for sampling.



## 2.2 Assessment Monitoring

Pursuant to §257.94(e)(3), an assessment monitoring program has been initiated for AP-E at Plant Branch based on statistically significant increases documented in the 2019 Annual Groundwater Monitoring and Corrective Action Report, (Golder 2019). A notice of assessment monitoring was placed in the operation record on November 13, 2019.

Groundwater sampling events were conducted for AP-E during August 2020 and September 2020. During the initial assessment sampling event in August 2020, groundwater samples were collected and analyzed for Appendix IV to meet the requirement of §257.95(b). Samples were collected from each well in the certified monitoring system for the CCR unit. The location of each of these monitoring wells is shown on Figure 2. Table 2, Groundwater Sampling Event Summary, presents a summary of groundwater sampling events completed for AP-E and the status of the monitoring network.

During the initial assessment sampling event in August 2020, groundwater samples were collected and analyzed for Appendix IV to meet the requirement of §257.95(b). During the September 2020 semi-annual sampling event, groundwater samples from each detection monitoring well were collected for analysis of Appendix III and the Appendix IV constituents detected during the August 2020 event. Results of sampling activities during this monitoring period are presented in Appendix A, Analytical Results, Field Data Forms, and Data Validation Summaries.

## 3.0 SAMPLE METHODOLOGY AND ANALYSIS

Sampling events completed during this reporting period for AP-E represent both the 2020 annual Appendix IV monitoring event as well as the first semi-annual assessment monitoring event for AP-E at Plant Branch. Groundwater analytical data and chain of custody records are presented in Appendix A. The following sections describe methods used to conduct groundwater monitoring at the site.

### 3.1 Groundwater Elevation Measurement

Prior to each scheduled sampling event in August and September 2020, groundwater elevations were recorded from the monitoring well network. Groundwater elevations are summarized in Table 3, Summary of Groundwater Elevations. The recorded water level data were used to develop Figure 3, AP-E Potentiometric Surface Elevation Contour Map – August 17, 2020, and Figure 4, AP-E Potentiometric Surface Elevation Contour Map – September 14, 2020. Review of Figures 3 and 4 shows that the general direction of groundwater flow across AP-E is to the east-northeast and east-southeast. This groundwater flow pattern is consistent with previous observations.

### 3.2 Groundwater Gradient and Flow Velocity

Groundwater flow rates at the site were calculated based on hydraulic gradients, hydraulic conductivity from previous slug test results, and an estimated effective porosity of the screened horizon. Based on slug test data at the site, hydraulic conductivity ranges from 2.7 to 5.5 feet per day, which is used in the flow calculations. The hydraulic gradient was calculated between well pairs shown on Table 4A, Groundwater Velocity Calculations – August 2020 and Table 4B, Groundwater Velocity Calculations – September 2020. An effective porosity of 0.20 was used based on the default values for effective porosity recommended by USEPA for a silty sand-type soil (USEPA, 1996).

Horizontal flow velocity was calculated using the commonly used derivative of Darcy's Law:

$$V = \frac{K * i}{n_e} \quad \text{Where:}$$

$V$  = Groundwater flow velocity  $\left(\frac{\text{feet}}{\text{day}}\right)$

$K$  = Average hydraulic conductivity of the aquifer  $\left(\frac{\text{feet}}{\text{day}}\right)$

$i$  = Horizontal hydraulic gradient  $\left[\frac{\text{feet}}{\text{feet}}\right]$

$n_e$  = Effective porosity

Using this equation and groundwater elevation data from these sampling events, groundwater flow velocities are calculated for various areas of the site and are tabulated on Tables 4A and 4B.

As presented on Tables 4A and 4B groundwater flow velocity at the site ranges from approximately 0.07 to 0.27 feet per day (or approximately 23.8 to 99.4 feet per year) across AP-E. The observed groundwater flow velocities calculated for this monitoring event are also generally consistent with expected velocities in the regolith-upper bedrock aquifers of Georgia Piedmont and confirm the groundwater monitoring system as properly located to monitor the uppermost aquifer for AP-E at Plant Branch.

### 3.3 Groundwater Sampling

Groundwater samples were collected in accordance with §257.93(a) and 391-3-4-.10(6). Monitoring wells were purged and sampled using low-flow sampling procedures. Dedicated and/or non-dedicated low-flow pneumatic bladder pumps or peristaltic pumps were used to purge and sample the wells. During the purging of each well, field measurements of temperature, specific conductance, dissolved oxygen (DO), pH, and oxidation-reduction potential (ORP), were recorded using a SmarTroll® (In-Situ field instrument) along with a separate turbidity meter.

Groundwater samples were collected when the following general stabilization criteria were met:

- 0.1 standard units for pH
- 5% for specific conductance
- ±10% for DO where DO > 0.5 mg/L; if DO < 0.5 milligrams per liter (mg/L), no stabilization criteria apply)
- Turbidity measurements less than 5 nephelometric turbidity units (NTU)

Following well stabilization, samples were collected directly into appropriately preserved laboratory supplied sample containers, placed in ice-packed coolers, and submitted to the laboratory following standard chain-of-custody protocol. Field information forms, generated directly from the SmarTroll®, and chain-of-custody records are included in Appendix A.

Environmental monitoring field data sheets are included with the analytical reports in Appendix A. Field data and sampling notes for each monitoring well are recorded on the field information forms, which contain a description of the sampling equipment, sampling method, purge rate, field observations, field calibration forms, and depth to water measurements at each monitoring location.

### 3.4 Laboratory Analyses

Groundwater samples were collected during August and September in 2020. During the August 2020 sampling event, wells were sampled and analyzed for Appendix IV monitoring parameters pursuant to 40 CFR §

257.90(e)(3). The September 2020 event represents the first semi-annual sampling event for AP-E at Plant Branch. Because AP-E is currently in assessment monitoring, groundwater samples from wells in the assessment monitoring program were analyzed for Appendix III and the detected Appendix IV monitoring parameters per 40 CFR Parts 257 and 261. Tables 5A, and 5B, Analytical Data Summary – Pond E, presents a tabulated summary of the sampling results for August and September 2020, respectively. sampling results. Analytical methods used for groundwater monitoring parameters can be found on the attached analytical data reports in Appendix A.

Laboratory analyses for these assessment monitoring events were performed by Pace Analytical (Pace) in Atlanta, Georgia and Greensburg, Pennsylvania. Pace is accredited by National Environmental Laboratory Accreditation Program (NELAP) and maintains a NELAP certification for all parameters analyzed for this project. NELAP certification for Pace for 2020 is provided in Appendix A. Groundwater data and chain of custody records for the monitoring events are presented in Appendix A.

### 3.5 Quality Assurance and Quality Control

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

Groundwater quality data in this report was independently validated in accordance with USEPA guidance (USEPA, 2002) and the analytical methods. Data validation generally consisted of reviewing sample integrity, holding times, laboratory method blanks, laboratory control samples, matrix spikes/matrix spike duplicate recoveries and relative percent differences, post digestions spikes, laboratory and field duplicate relative percent difference (RPDs), field and equipment blanks, and reporting limits. The data are considered usable for meeting project objectives and the results are considered valid.

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

## 4.0 STATISTICAL ANALYSES

Statistical analysis of Appendix III groundwater monitoring data was performed pursuant to § 257.93 following the established statistical method for AP-E. In addition, pursuant to § 257.95(d)(2), Georgia Power established groundwater protection standards (GWPS) for the Appendix IV constituents and completed statistical analyses of the Appendix IV groundwater monitoring data obtained during the September 2020 assessment monitoring event. The report generated from the analyses is provided in Appendix B. The September 2020 data were analyzed by Groundwater Stats Consulting (GSC).

### 4.1 Statistical Method

The selected statistical method for AP-E was developed in accordance with § 257.93(f) and 391-3-4-.10(6) using methodology presented in Statistical Analysis of Groundwater Data at RCRA Facilities, Unified Guidance (US EPA, 2009). The Sanitas Groundwater statistical software was used to perform the statistical analyses. Sanitas is

a decision-support software package that incorporates the statistical tests required of Subtitle C and D facilities by US EPA regulations and guidance as recommended in the US EPA (2009) document.

Table 4.1.1 Plant Branch AP-E Statistical Method Summary provides a summary of the statistical methodology used at AP-E for the groundwater monitoring conducted in September 2020 and will be used for any routine monitoring in the future.

TABLE 4.1.1: PLANT BRANCH AP-E STATISTICAL METHOD SUMMARY		
Monitoring Well Network	Upgradient Wells	BRGWA-2S, BRGWA-2I, BRGWA-5S, BRGWA-5I, BRGWA-6S
	Downgradient Wells	BRGWC-17S, BRGWC-33S, BRGWC- 34S, BRGWC-35S, BRGWC-36S, BRGWC-37S, and BRGWC-38S
CCR Monitoring Parameters	Appendix III (Detection Monitoring)	Boron, Calcium, Chloride, Fluoride, pH, Sulfate, Total Dissolved Solids (TDS)
	Appendix IV (Assessment Monitoring)	Antimony, Arsenic, Barium, Beryllium, Cadmium, Chromium, Cobalt, Fluoride, Lead, Lithium, Mercury, Molybdenum, Selenium, Thallium, Radium (226+228)
Statistical Methodology	Data Screening on Proposed Background	Evaluate outliers, trends, and seasonality when sufficient data are available
	Statistical Limits	Interwell statistical limits will be applied on a constituent basis, depending on the appropriateness of the method as determined by the Analysis of Variance.
	Prediction Limits	Parametric when data follow a normal or transformed normal distribution and when less than 50% non-detects, utilizing Kaplan Meier non-detect adjustment when applicable; nonparametric when data sets contain greater than 50% non-detects or when data are not normally or transformed-normally distributed.
	Confidence Intervals	Used in Assessment and Corrective Action monitoring.
	No Statistical Testing	Statistical testing is not required for parameters with 100% non-detects.
	Verification Resample Plan (Optional)	1-of-2 with minimum of 8 samples per well for interwell testing. <ul style="list-style-type: none"> <li>▪ Initial statistical exceedance warrants independent resampling within 90 days.</li> <li>▪ If resample passes, well/parameter is not considered a confirmed statistically significant increase (SSI).</li> <li>▪ If resample exceeds, well/parameter has a confirmed SSI.</li> <li>▪ If no resample is collected, the original result is deemed verified.</li> </ul>

The following guidance is also applicable to the statistical analysis method:

- Statistical analyses are not performed on analytes containing 100% non-detects (US EPA Unified Guidance, 2009, Chapter 6).
- When data contain less than or equal to 15% non-detects in background, simple substitution of one-half the reporting limit is utilized in the statistical analysis. The reporting limit utilized for non-detects is the practical quantitation limit (PQL) as reported by the laboratory.
- When data contain between 15-50% non-detects, a non-detect adjustment such as the Kaplan-Meier or Regression on Order Statistics (ROS) method for adjustment of the mean and standard deviation will be used prior to constructing a parametric prediction limit.
- Nonparametric prediction limits are used on data containing greater than 50% non-detects.

#### 4.1.1 Appendix III Detection Monitoring Statistical Methods

Appendix III statistical analyses groundwater monitoring data was statistically evaluated through the use of interwell prediction limits. The Sen's Slope/Mann Kendall trend test was also performed to evaluate concentrations over time and determine whether concentrations are statistically increasing, decreasing or stabilizing.

#### 4.1.2 Appendix IV Assessment Monitoring Statistical Methods

For the Assessment Monitoring Program (Appendix IV constituents), parametric tolerance limits were used to calculate site specific background limits from pooled upgradient well data for Appendix IV parameters with a target of 95% confidence and 95% coverage. The confidence and coverage levels for nonparametric tolerance limits are dependent upon the number of background samples. The background limits were then used when determining the groundwater protection standard (GWPS) under GA EPD Rule 391-3-4-.10(6)(a).

US EPA revised the Federal CCR Rule on July 30, 2018, updating GWPS for cobalt, lead, lithium, and molybdenum as described above in 40 CFR §257.95(h)(2).

As described in 40 CFR § 257.95(h)(1-3), the GWPS for cobalt, lead, lithium and molybdenum is:

- (1) Cobalt 0.006 mg/L;
- (2) Lead 0.015 mg/L;
- (3) Lithium 0.040 mg/L;
- (4) Molybdenum 0.100 mg/L; or
- (5) Background levels where the background level is higher than the Rule-specified GWPS.

Presently those updated GWPS have not yet been incorporated in the current GA EPD Rules for Solid Waste Management 391-3-4-.10(6)(a); therefore, under GA EPD rules, background concentrations are considered when determining the GWPS for constituents where an MCL has not been established (or where background is higher than the MCL). Under the existing GA EPD rules, the GWPS is:

- 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 State rule requirements, GWPSs were established for statistical comparison of Appendix IV constituents. Table 4.1.2, Summary of Background Levels and GWPSs, presented below, summarizes the background limit established at each monitoring well and the GWPS established under 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 for the State rules. Only when the entire confidence interval is above a GWPS is the well/constituent pair considered to exceed its respective standard. If there is an exceedance of the established standard, a statistically significant level (SSL) exceedance is identified.

Table 4.1.2: SUMMARY OF BACKGROUND LEVELS AND GWPSs				
Analyte	Units	MCL	Site Specific Background September 2020 <sup>[1]</sup>	State-Derived GWPS <sup>[2]</sup>
Antimony	mg/L	0.006	0.003	0.006
Arsenic	mg/L	0.01	0.005	0.01
Barium	mg/L	2	0.063	2
Beryllium	mg/L	0.004	0.003	0.004
Cadmium	mg/L	0.005	0.0025	0.005
Chromium	mg/L	0.1	0.01356	0.1
Cobalt	mg/L	NA	0.005	0.005
Fluoride	mg/L	4	0.3	4
Lead	mg/L	NA	0.005	0.005
Lithium	mg/L	NA	0.089	0.089
Mercury	mg/L	0.002	0.0005	0.002
Molybdenum	mg/L	NA	0.01	0.01
Radium (226 + 228)	pCi/L	5	1.42	5
Selenium	mg/L	0.05	0.01	0.05
Thallium	mg/L	0.002	0.001	0.002

Notes:

mg/L = milligrams per liter; pCi/L = picocuries per liter; NA = Not Available

MCL = Maximum Contaminant Level; RSL = Regional Screening Level

[1] The background limits are used when determining the groundwater protection standard (GWPS) under 40 CFR §257.95(h) and Georgia Environmental Protection Division (EPD) Rule 391-3-4-.10(6)(a).

[2] Under existing EPD rules, the GWPS is: (i) the MCL, (ii) where the MCL is not established, the background concentration, or (iii) background levels for constituents where the background level is higher than the MCL.

A summary table of the statistical results accompanies the prediction limits for Appendix III and confidence intervals for Appendix IV in Appendix B, Statistical Analyses. The background period for statistical analyses included data through September 2020. Tolerance limits for confidence interval calculations are updated to include current data. Due to varying reporting limits in background, the most recent reporting limit is used when data is not reported above detection limits. This results in a more appropriate statistical test.

## 4.2 Statistical Analysis Results

Analytical data from the semi-annual assessment monitoring event in September 2020 at AP-E have been statistically analyzed in accordance with the site's certified Statistical Analysis Plan. Verification resampling to confirm initial SSIs was not performed. The statistical results of the September 2020 monitoring event and resampling events are included in Appendix B, Statistical Analyses.

### 4.2.1 September 2020 Appendix III Statistical Results

Based on the statistical results presented in Appendix B, groundwater conditions have not returned to background and assessment monitoring should continue pursuant to 40 CFR 257.95(f). A detailed list of the noted exceedances is provided in Appendix B.

### 4.2.2 September 2020 Appendix IV Statistical Results

Analytical data from the September 2020 monitoring event at AP-E have been statistically analyzed in accordance with the site's certified statistical analysis method. Review of the Sanitas results indicates that using the GWPS established according to GA EPD Rule 391-3-4-.10(6)(a), the following SSLs are identified below in Table 4.2.2, AP-E October 2019 Confidence Interval Statistically Significant Level Exceedances.

AP-E October 2019 Confidence Interval Statistically Significant Level Exceedances	
AP-E Monitoring Well	Appendix IV Parameter
BRGWC-38S	Beryllium, Cobalt
BRGWC-33S	Cobalt

## 4.3 Alternate Source Demonstration

Pursuant to the options of 40 CFR 257.95 as adopted by 391-3-4-.10, an Alternate Source Demonstration (ASD) was prepared in response to SSLs identified for beryllium and cobalt in groundwater monitoring wells. The ASD was submitted to GA EPD on July 28, 2020.

The evaluation presented in this document demonstrates that statistically significant levels of beryllium and cobalt identified in groundwater are due to the presence of naturally-occurring beryllium and cobalt present in soils and bedrock, and not caused by a release from the CCR unit.

The occurrence of low-pH groundwater is due to natural groundwater recharge and flow conditions, which facilitates the release and mobilization of beryllium and cobalt from natural sources in the underlying rock formations to groundwater. The following lines of evidence demonstrate the natural occurrence of beryllium and cobalt in site groundwater.

- Beryllium and cobalt are not detected above naturally occurring background concentrations and have limited to no mobility in porewater from AP-E.
- The elemental ratios of lithium and boron in downgradient wells are reflective of upgradient groundwater conditions at the Site rather than porewater.

- Beryllium and cobalt are naturally occurring in the soils and bedrock at Plant Branch as identified by chemical analysis and sequential extraction of soil and rock samples.
- Soil/bedrock mineralogical results support the presence of naturally occurring beryllium and cobalt at Plant Branch.
- Beryllium and cobalt GWPS exceedances only occur where acidic groundwater is present, which is unrelated to the CCR porewater (circumneutral pH) and suggests aquifer materials are the source for elevated beryllium and cobalt concentrations.

Therefore, no further actions (i.e., Assessment of Corrective Measures) are warranted at this time.

## 5.0 MONITORING PROGRAM STATUS

Statistical evaluations of the groundwater monitoring data for AP-E confirm SSIs of Appendix III groundwater monitoring parameters above background and SSLs of Appendix IV groundwater monitoring parameter above the established GWPS. An ASD report was submitted on July 28, 2020 that documents the natural occurrence of target Appendix IV SSLs in the Site groundwater and that these exceedances are not caused by AP-E. However, based on the results from the September 2020 sampling event, AP-E will remain in assessment monitoring.

## 6.0 CONCLUSIONS AND FUTURE ACTIONS

This 2020 Semi-Annual Groundwater Monitoring and Corrective Action Report, Georgia Power Plant Branch AP-E has been prepared to fulfill the requirements of GA EPD Rules of Solid Waste Management 391-3-4-.10(6). The groundwater flow direction and rates interpreted during the August 2020 and September 2020 monitoring events are generally consistent with historical evaluations. Review of analytical results and statistical analyses developed for the site indicates confirmed SSIs of Appendix III above background and SSLs of Appendix IV above the established GWPS. Plant Branch submitted an ASD for each of the identified SSLs following the rule and timelines specified in 40 CFR 257.95. Based on the findings presented herein, Plant Branch will continue with assessment groundwater monitoring and reporting. The next scheduled sampling event is tentatively scheduled for first quarter of 2021.

## 7.0 REFERENCES

Golder Associates, 2020. Well Installation Report Addendum, Georgia Power – Plant Branch AP-E, Putnam County, Georgia, October 2020.

Golder Associates, 2020. Alternate Source Demonstration, Georgia Power – Plant Branch AP-E, Putnam County, Georgia, July 2020.

Golder Associates, 2018. Geologic and Hydrogeologic Summary Report, Georgia Power – Plant Branch, Putnam County, Georgia, October 2018.

USEPA, 2002, Data Validation Standard Operating Procedures and Quality Assurance Manual, November.

USEPA, 2009, *Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities, Unified Guidance*. EPA 530-R-09-007.

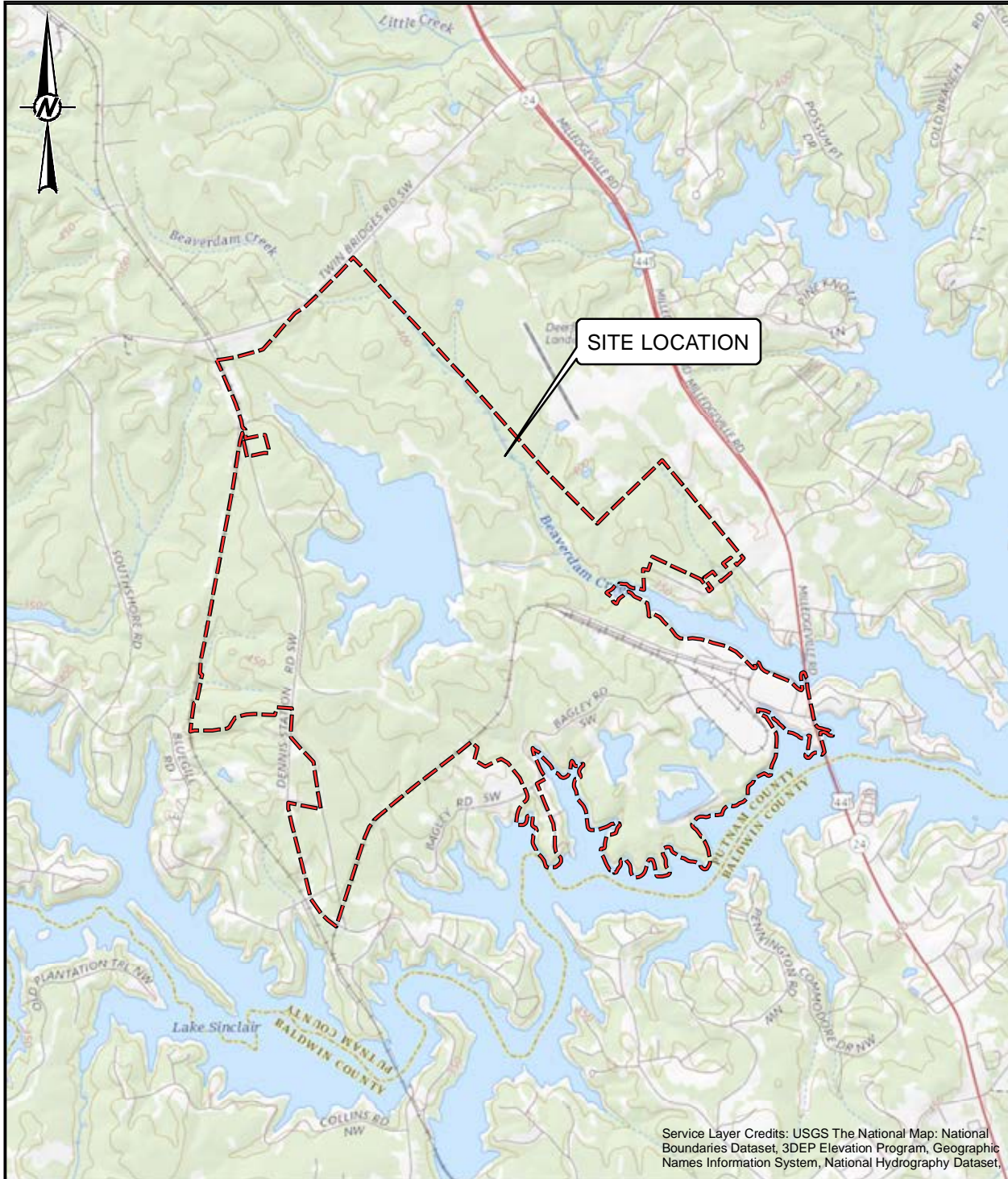
USEPA. 2015. Federal Register. Volume 80. No. 74 Friday April 17, 2015. Part II. Environmental Protection Agency. 40 CFR Parts 257 and 261. Hazardous and Solid Waste Management System; Disposal of Coal



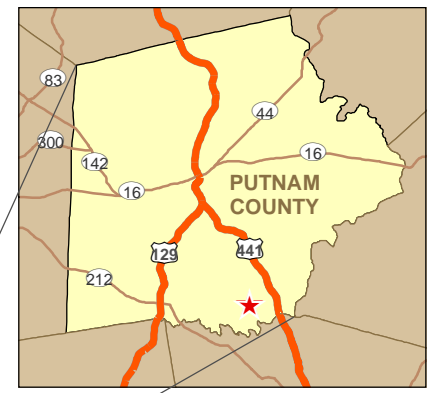
Combustion Residuals from Electric Utilities; Final Rule. [EPA-HQ-RCRA-2009-0640; FRL-9919-44-OSWER]. RIN-2050-AE81.

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

## FIGURES & TABLES



Service Layer Credits: USGS The National Map: National Boundaries Dataset, 3DEP Elevation Program, Geographic Names Information System, National Hydrography Dataset.



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 PLANT BRANCH



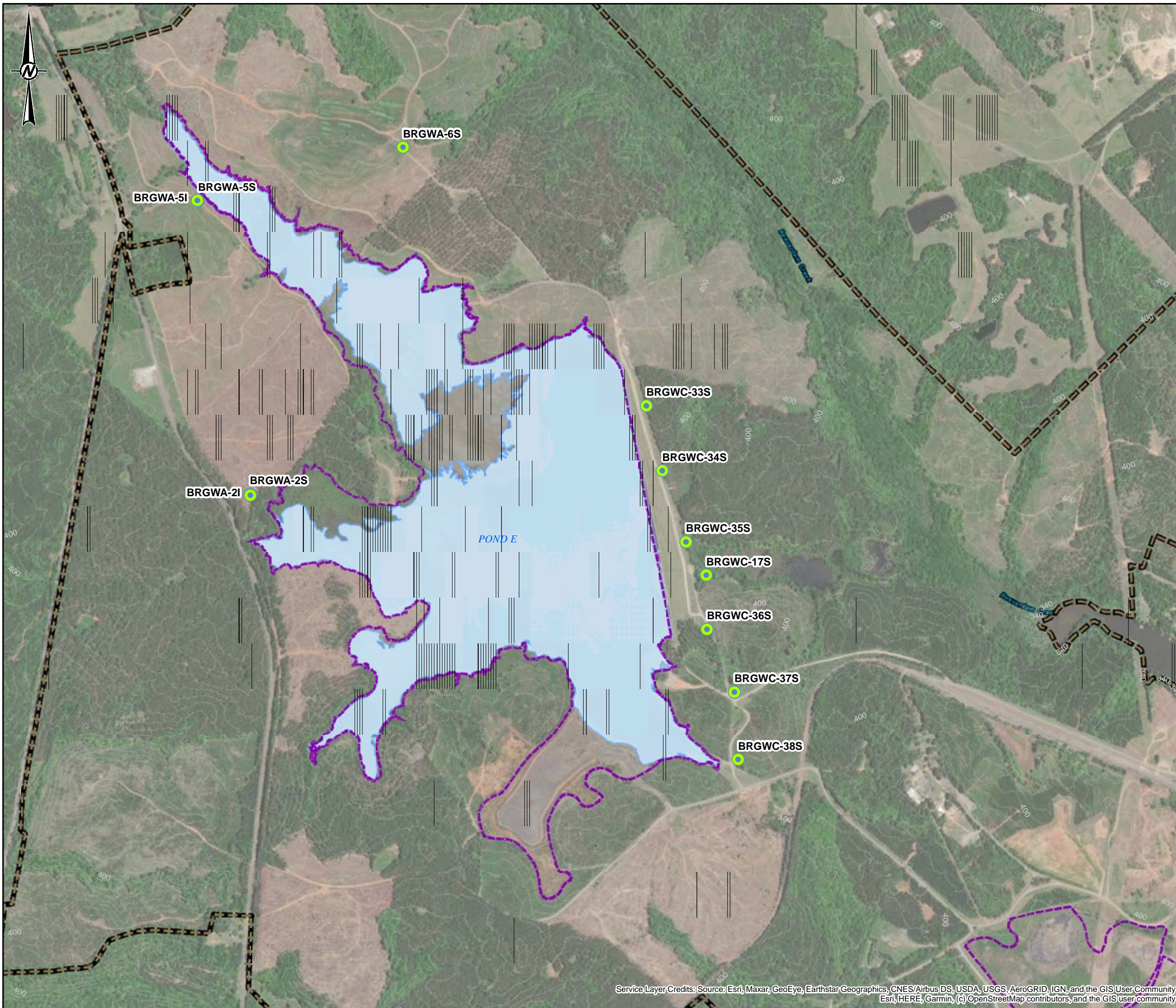
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**GROUNDWATER MONITORING**

TITLE  
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	PREPARED	DJC
	DESIGN	DLP
	REVIEW	RK
	APPROVED	DLP

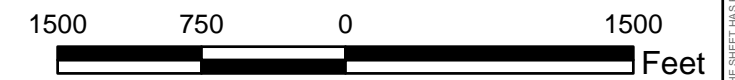
PROJECT No. 166625421	CONTROL 1666254A000-GIS.mxd	Rev. 0	FIGURE 1
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1 in IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET HAS BEEN MODIFIED FROM: ANSIA



- LEGEND**
- MONITORING WELL
  - PIEZOMETER
  - PROPERTY BOUNDARY
  - APPROXIMATE ASH POND BOUNDARY
  - APPROXIMATE SURFACE WATER LIMITS

- REFERENCE**
1. SERVICE LAYER CREDITS: SOURCE: ESRI, MAXAR, GEOEYE, EARTHSTAR GEOGRAPHICS, CNES/AIRBUS DS, USDA, USGS, AEROGRIID, IGN, AND THE GIS USER COMMUNITY ESRI, HERE, GARMIN, (C) OPENSTREETMAP CONTRIBUTORS, AND THE GIS USER COMMUNITY
  2. COORDINATE SYSTEM: NAD 1983 STATE PLAN GEORGIA WEST (U.S. FEET).
  3. ASH POND BOUNDARY AND PROPERTY LINE PROVIDED BY SOUTHERN COMPANY SERVICES.
  4. PIEZOMETER AND WELL LOCATIONS PROVIDED BY METRO ENGINEERING & SURVEYING CO., INC. (2020)
  5. TOPOGRAPHIC CONTOURS PROVIDED BY GEORGIA POWER COMPANY (MARCH 2018).



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**GEORGIA POWER COMPANY  
 PLANT BRANCH**



PROJECT  
**GROUNDWATER MONITORING PROGRAM**

TITLE  
**SITE PLAN AND MONITORING WELL LOCATION MAP**

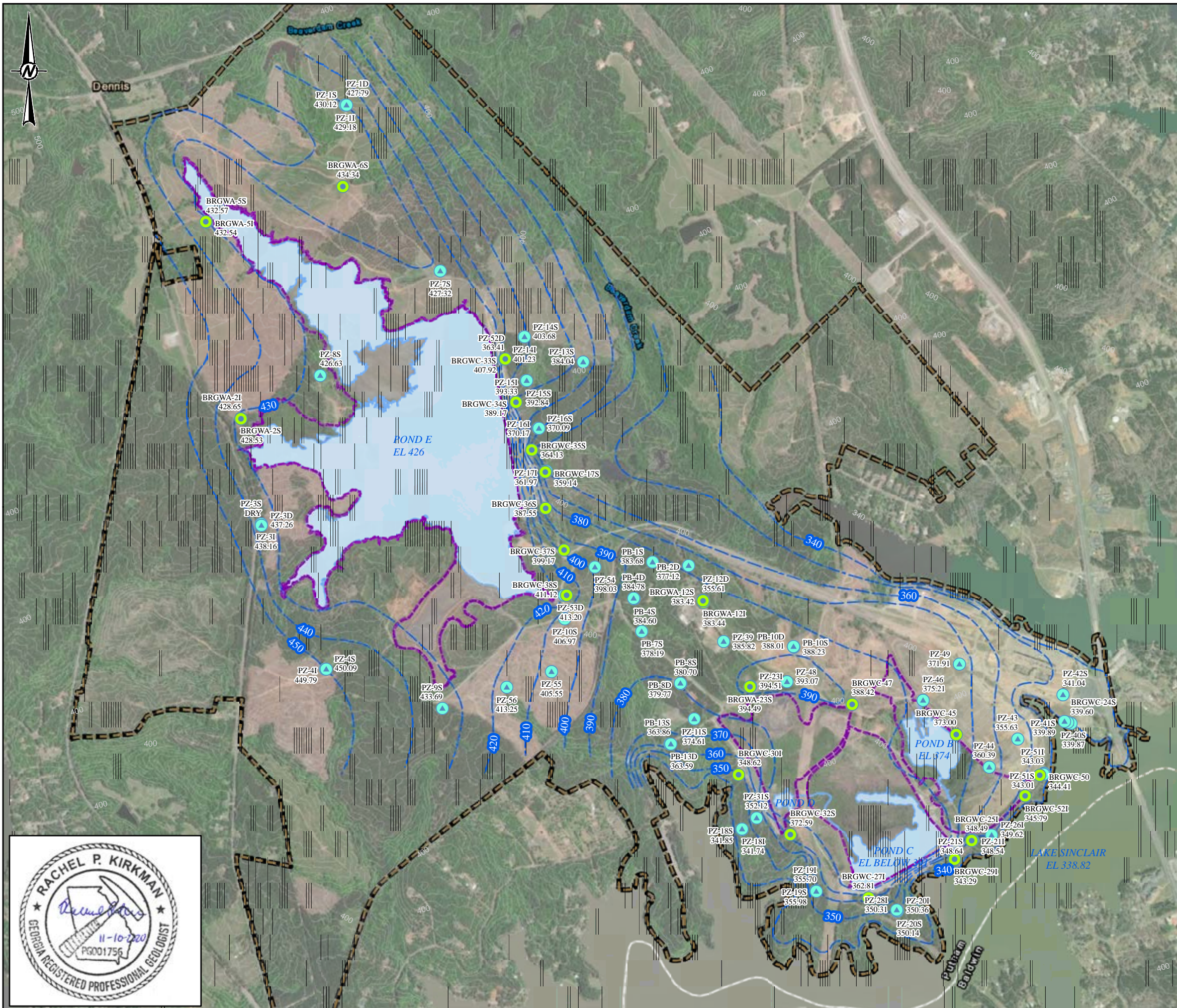
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	PREPARED	BAS
	DESIGN	BAS
	REVIEW	RK
	APPROVED	DLP

PROJECT No. 166625421	CONTROL 1666254V001-GIS.mxd	Rev. 0	FIGURE <b>2</b>
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Service Layer Credits: Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community

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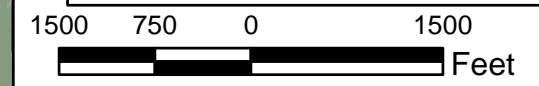
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- LEGEND**
- MONITORING WELL
  - PIEZOMETER
  - PROPERTY BOUNDARY
  - INFERRED POTENTIOMETRIC SURFACE (NAVD88)
  - APPROXIMATE ASH POND BOUNDARY
  - APPROXIMATE SURFACE WATER LIMITS

- NOTES**
1. GROUNDWATER SURFACE CONTOUR INTERVAL = 10 FEET
  2. GROUNDWATER CONTOURS BASED ON LINEAR INTERPOLATION BETWEEN AND EXTRAPOLATION FROM KNOWN DATA, AND TOPOGRAPHIC CONTOURS. THEREFORE, CONTOURS MAY NOT REFLECT ACTUAL CONDITIONS.
  3. DEEP (D) AND INTERMEDIATE (I) WELL ELEVATIONS WERE NOT USED FOR GROUNDWATER CONTOURING.
  4. NAVD88=NORTH AMERICAN VERTICAL DATUM 88
  5. GROUNDWATER ELEVATIONS RECORDED AUGUST 17, 2020.

- REFERENCE**
1. SERVICE LAYER CREDITS: ESRI, HERE, GARMIN, (C) OPENSTREETMAP CONTRIBUTORS, AND THE GIS USER COMMUNITY  
SOURCE: ESRI, DIGITALGLOBE, GEOEYE, EARTHSTAR GEOGRAPHICS, CNES/AIRBUS DS, USDA, USGS, AEROGRIID, IGN, AND THE GIS USER COMMUNITY
  2. COORDINATE SYSTEM: NAD 1983 STATE PLAN GEORGIA WEST (U.S. FEET).
  3. BORING/PIEZOMETER LOCATIONS PROVIDED BY METRO ENGINEERING & SURVEYING CO., INC. (JULY 2020).
  4. PROPERTY LINE PROVIDED BY SOUTHERN COMPANY SERVICES.



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 PLANT BRANCH

PROJECT  
**GROUNDWATER MONITORING PROGRAM**

TITLE  
**POTENTIOMETRIC SURFACE CONTOUR**  
**MAP AUGUST 17, 2020**

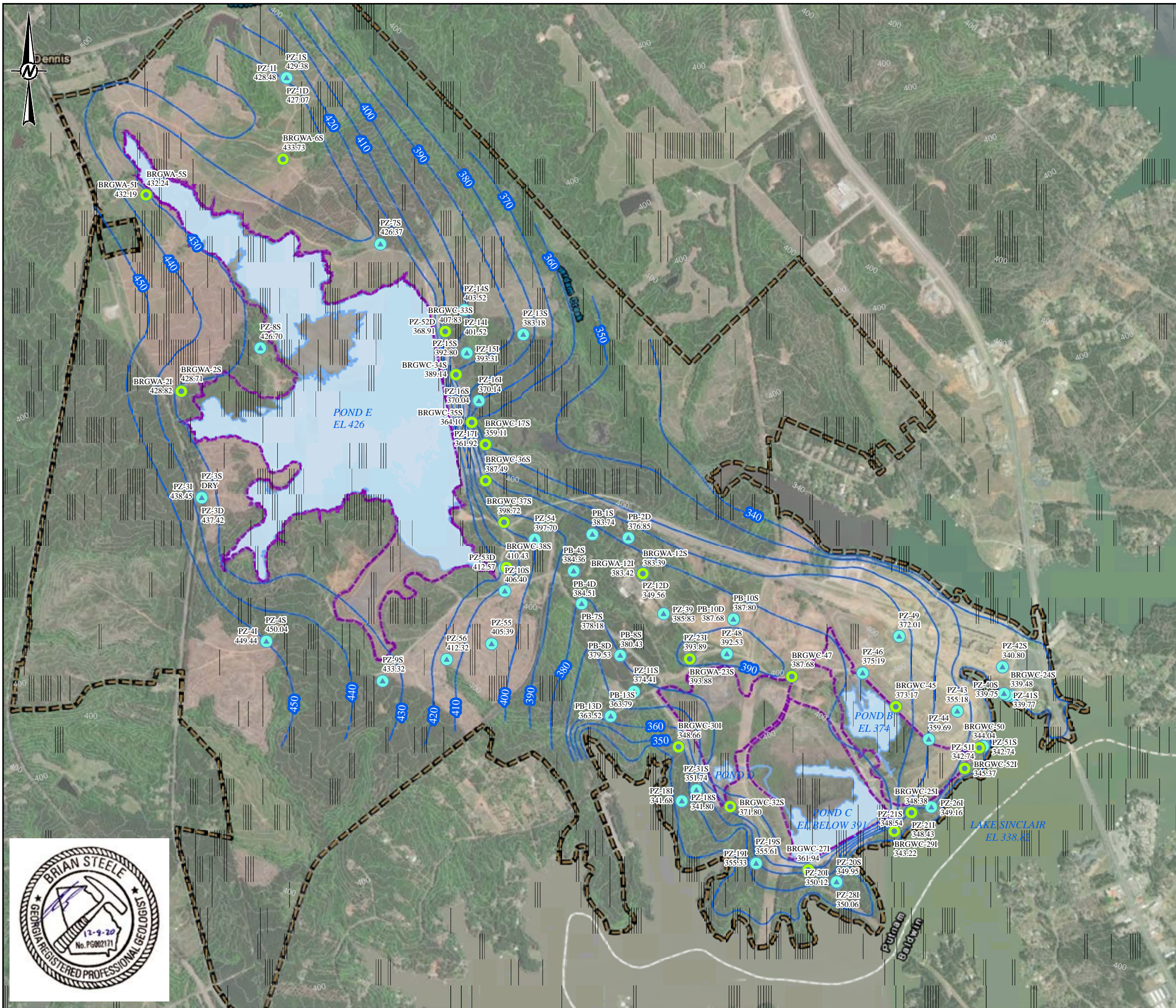
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	PREPARED	DJC
	DESIGN	ED
	REVIEW	RK
	APPROVED	DLP

PROJECT No. 166625421 CONTROL 1666254V001-GIS.mxd Rev. 1 FIGURE 3

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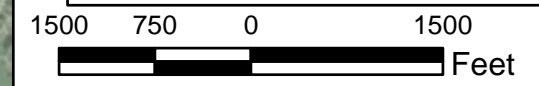
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- LEGEND**
- MONITORING WELL
  - PIEZOMETER
  - INFERRED POTENTIOMETRIC SURFACE (NAVD88)
  - PROPERTY BOUNDARY
  - APPROXIMATE ASH POND BOUNDARY
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  3. DEEP (D) AND INTERMEDIATE (I) WELL ELEVATIONS WERE NOT USED FOR GROUNDWATER CONTOURING.
  4. NAVD88=NORTH AMERICAN VERTICAL DATUM 88
  5. GROUNDWATER ELEVATIONS RECORDED SEPTEMBER 14, 2020.

- REFERENCE**
1. SERVICE LAYER CREDITS: ESRI, HERE, GARMIN, (C) OPENSTREETMAP CONTRIBUTORS, AND THE GIS USER COMMUNITY SOURCE: ESRI, DIGITALGLOBE, GEOEYE, EARTHSTAR GEOGRAPHICS, CNES/AIRBUS DS, USDA, USGS, AEROGRIID, IGN, AND THE GIS USER COMMUNITY
  2. COORDINATE SYSTEM: NAD 1983 STATE PLAN GEORGIA WEST (U.S. FEET).
  3. BORING/PIEZOMETER LOCATIONS PROVIDED BY METRO ENGINEERING & SURVEYING CO., INC. (JULY 2020).
  4. PROPERTY LINE PROVIDED BY SOUTHERN COMPANY SERVICES



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**GEORGIA POWER COMPANY**  
 PLANT BRANCH

PROJECT  
**GROUNDWATER MONITORING PROGRAM**

TITLE  
**POTENTIOMETRIC SURFACE CONTOUR MAP SEPTEMBER 14, 2020**

CONSULTANT	DATE	REVISION
	YYYY-MM-DD	2020-09-25
	PREPARED	SEB
	DESIGN	ED
	REVIEW	RK
	APPROVED	DLP

PROJECT No. 166625421 CONTROL 1666254V001-GIS.mxd Rev. 1 FIGURE 4

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# TABLE 1

## MONITORING WELL NETWORK SUMMARY (AP-E)

Georgia Power - Plant Branch  
Milledgeville, GA

Well-ID	Old Well-ID	Location	Hydrogeologic Unit Screened <sup>[3]</sup>	Latitude	Longitude	Ground Surface Elevation (feet NAVD88) <sup>[1]</sup>	Top of Casing Elevation (feet NAVD88) <sup>[1]</sup>	Total Depth (feet bgs) <sup>[2]</sup>	Top of Screen Elevation (feet NAVD88) <sup>[1]</sup>	Screen Tip Elevation (feet NAVD88) <sup>[1]</sup>	Screen Length	Date of Installation
<b>POND E</b>												
BRGWA-2S	PZ-2S	Upgradient E	Saprolite	33.205940	-83.338294	440.4	443.20	44.6	406.20	396.20	10.0	4/2/2014
BRGWA-2I	PZ -2I	Upgradient E	Amphibolite Gneiss	33.205913	-83.338279	440.5	443.14	64.3	386.60	376.60	10.0	3/14/2014
BRGWA-5S	PZ-5S	Upgradient E	Saprolite	33.214300	-83.339971	440.8	443.86	40.0	411.20	401.20	10.0	4/3/2014
BRGWA-5I	PZ - 5I	Upgradient E	Amphibolite Gneiss	33.214317	-83.339996	441.1	443.79	61.2	390.30	380.30	10.0	4/3/2014
BRGWA-6S	PZ-6S	Upgradient E	Saprolite	33.215780	-83.333008	455.8	458.96	49.7	416.50	406.50	10.0	4/1/2014
BRGWC-17S	PZ-17S	Downgradient E	Alluvium	33.203532	-83.322836	362.2	365.32	7.1	360.50	355.50	5.0	3/13/2014
BRGWC-33S	PZ-33S	Downgradient E	Saprolite/TWR/Biotite Gneiss	33.208371	-83.324826	414.2	416.68	26.4	398.20	388.20	10.0	7/26/2016
BRGWC-34S	PZ-34S	Downgradient E	Saprolite	33.206518	-83.324300	389.2	391.96	23.0	376.20	366.20	10.0	7/25/2016
BRGWC-35S	PZ-35S	Downgradient E	Saprolite	33.204484	-83.323519	363.7	366.31	27.4	346.70	336.70	10.0	7/23/2016
BRGWC-36S	PZ-36S	Downgradient E	Saprolite	33.201997	-83.322833	383.1	389.84	28.7	364.40	354.40	10.0	7/26/2016
BRGWC-37S	PZ-37S	Downgradient E	Saprolite/TWR	33.200205	-83.321914	444.4	447.05	63.6	390.80	380.80	10.0	7/24/2016
BRGWC-38S	PZ-38S	Downgradient E	Saprolite/TWR	33.198277	-83.321812	429.8	432.24	38.2	402.00	392.00	10.0	7/22/2016

**Notes:**

1. feet NAVD88 = feet North American Vertical Datum 1988 feet NAD83 = North American Datum 1983
2. feet bgs = feet below ground surface
3. TWR = Transitionally Weathered Rock

**TABLE 2**  
**GROUNDWATER SAMPLING EVENT SUMMARY**  
**Georgia Power Company - Plant Branch**  
**Milledgeville, Georgia**

Well ID	Hydraulic Location	Summary of Sampling Events		Status of Monitoring Well
		August 2020	September 2020	
Purpose of Sampling Event		Annual Appendix IV Scan	Detection/Assessment	
<b>ASH PONDS E (AP-E)</b>				
<b>BRGWA-2S</b>	Upgradient	Scan02	A03	Assessment
<b>BRGWA-2I</b>	Upgradient	Scan02	A03	Assessment
<b>BRGWA-5S</b>	Upgradient	Scan02	A03	Assessment
<b>BRGWA-5I</b>	Upgradient	Scan02	A03	Assessment
<b>BRGWA-6S</b>	Upgradient	Scan02	A03	Assessment
<b>BRGWC-17S</b>	Downgradient	Scan02	A03	Assessment
<b>BRGWC-33S</b>	Downgradient	Scan02	A03	Assessment
<b>BRGWC-34S</b>	Downgradient	Scan02	A03	Assessment
<b>BRGWC-35S</b>	Downgradient	Scan02	A03	Assessment
<b>BRGWC-36S</b>	Downgradient	Scan02	A03	Assessment
<b>BRGWC-37S</b>	Downgradient	Scan02	A03	Assessment
<b>BRGWC-38S</b>	Downgradient	Scan02	A03	Assessment

**Notes:**

Scan## = Annual Appendix IV Scan

A## = Assessment Monitoring Event Number



**TABLE 3**  
**Summary of Groundwater Elevations**  
 Georgia Power Company- Plant Branch  
 Milledgeville, Georgia

Well-ID	Top of Casing Elevation (feet NAVD88) <sup>[1]</sup>	GROUNDWATER ELEVATIONS (FEET NAVD88)	
		8/17/2020	9/14/2020
<b>POND BCD</b>			
BRGWA-12S	434.64	383.42	383.39
BRGWA-12I	434.39	383.44	383.92
BRGWA-23S	428.24	394.49	393.88
BRGWC-25I	357.37	348.49	348.38
BRGWC-27I	366.86	362.81	361.94
BRGWC-29I	353.23	343.29	343.22
BRGWC-30I	352.61	348.62	348.66
BRGWC-32S	406.39	372.59	371.80
BRGWC-45	384.58	373.00	373.17
BRGWC-47	411.20	388.42	387.68
BRGWC-50	381.35	344.41	344.04
BRGWC-52I	383.87	345.79	345.37

**TABLE 3**  
**Summary of Groundwater Elevations**  
 Georgia Power Company- Plant Branch  
 Milledgeville, Georgia

Well-ID	Top of Casing Elevation (feet NAVD88) <sup>[1]</sup>	GROUNDWATER ELEVATIONS (FEET NAVD88)	
		8/17/2020	9/14/2020
<b>POND E</b>			
BRGWA-2S	443.20	428.53	428.71
BRGWA-2I	443.14	428.65	428.82
BRGWA-5S	443.86	432.57	432.24
BRGWA-5I	443.79	432.54	432.19
BRGWA-6S	458.96	434.34	433.73
BRGWC-17S	365.32	359.14	359.11
BRGWC-33S	416.68	407.92	407.83
BRGWC-34S	391.96	389.17	389.14
BRGWC-35S	366.31	364.13	364.10
BRGWC-36S	389.84	387.55	387.49
BRGWC-37S	447.05	399.17	398.72
BRGWC-38S	432.24	411.12	410.43

**TABLE 3**  
**Summary of Groundwater Elevations**  
 Georgia Power Company- Plant Branch  
 Milledgeville, Georgia

Well-ID	Top of Casing Elevation (feet NAVD88) <sup>[1]</sup>	GROUNDWATER ELEVATIONS (FEET NAVD88)	
		8/17/2020	9/14/2020
<b>PIEZOMETERS</b>			
PZ-1S	465.07	430.12	429.38
PZ-1I	464.71	429.18	428.48
PZ-1D	463.41	427.79	427.07
PZ-3S	490.53	DRY	DRY
PZ-3I	489.49	438.16	438.45
PZ-3D	487.50	437.26	437.42
PZ-4S	482.87	450.09	450.04
PZ-4I	482.98	449.79	449.44
PZ-7S	451.57	427.32	426.37
PZ-8S	453.08	426.63	426.70
PZ-9S	469.28	433.69	433.32
PZ-10S	433.85	406.97	406.40
PZ-11S	393.99	374.61	374.41
PZ-12D	434.09	355.61	349.56
PZ-13S	409.97	384.04	383.18
PZ-14S	423.31	403.68	403.52
PZ-14I	422.71	401.23	401.52
PZ-15S	402.90	392.84	392.80
PZ-15I	403.06	393.33	393.31
PZ-16S	382.52	370.09	370.04
PZ-16I	382.45	370.17	370.14
PZ-17I	365.33	361.97	361.92
PZ-18S	362.82	341.85	341.80
PZ-18I	362.55	341.74	341.68
PZ-19S	371.42	355.98	355.61
PZ-19I	371.74	355.70	355.33
PZ-20S	365.41	350.14	349.95
PZ-20I	365.34	350.36	350.12
PZ-21S	358.52	348.64	348.54

**TABLE 3**  
**Summary of Groundwater Elevations**  
 Georgia Power Company- Plant Branch  
 Milledgeville, Georgia

Well-ID	Top of Casing Elevation (feet NAVD88) <sup>[1]</sup>	GROUNDWATER ELEVATIONS (FEET NAVD88)	
		8/17/2020	9/14/2020
<b>PIEZOMETERS</b>			
PZ-21I	358.92	348.54	348.43
PZ-23I	427.74	394.51	393.89
BRGWC-24S	354.10	339.60	339.48
PZ-26I	370.63	349.62	349.16
PZ-28I	364.81	350.31	350.06
PZ-31S	376.77	352.12	351.74
PZ-39	434.78	385.82	385.83
PZ-40S	355.96	339.87	339.75
PZ-41S	357.17	339.89	339.77
PZ-42S	361.66	341.04	340.80
PZ-43	383.71	355.63	355.18
PZ-44	383.04	360.39	359.69
PZ-46	384.64	375.21	375.19
PZ-48	420.90	393.07	392.53
PZ-49	384.99	371.91	372.01
PZ-51S	380.27	343.01	342.74
PZ-51I	380.52	343.03	342.74
PZ-52D	417.03	363.41	368.91
PZ-53D	434.68	413.20	412.57
PZ-54	443.86	398.03	397.70
PZ-55	453.07	405.55	405.39
PZ-56	418.84	413.25	412.32

**TABLE 3**  
**Summary of Groundwater Elevations**  
 Georgia Power Company- Plant Branch  
 Milledgeville, Georgia

Well-ID	Top of Casing Elevation (feet NAVD88) <sup>[1]</sup>	GROUNDWATER ELEVATIONS (FEET NAVD88)	
		8/17/2020	9/14/2020
<b>Temporary Landfill Piezometers</b>			
PB-1S	403.16	383.68	383.74
PB-2D	416.71	377.12	376.85
PB-4S	411.15	384.60	384.36
PB-4D	412.12	384.78	384.51
PB-7S	402.88	378.19	378.18
PB-8S	401.82	380.70	380.43
PB-8D	401.74	379.77	379.53
PB-10S	400.91	388.23	387.80
PB-10D	400.31	388.01	387.68
PB-13S	373.31	363.86	363.79
PB-13D	373.77	363.59	363.52

**Notes:**

1. Feet NAVD88 = feet North American Vertical Datum 1988
2. Updated survey data for all wells provided by Metro Engineering in July 2020

**TABLE 4A**  
**GROUNDWATER VELOCITY CALCULATIONS - August 2020**  
**Georgia Power - Plant Branch Ash Pond AP-E**  
**Milledgeville, GA**

Flow Paths	Groundwater Elevation (feet NAVD88) <sup>7</sup>	Δ H (feet) <sup>1</sup>	Δ L (feet) <sup>2</sup>	Hydraulic Gradient (Δ H/Δ L) <sup>3</sup>	Average Hydraulic Conductivity, K (feet per day) <sup>5</sup>	Assumed Effective Porosity (n <sub>e</sub> ) <sup>6</sup>	Average Linear Groundwater Velocity	
							(feet per day) <sup>4</sup>	(feet per year) <sup>4</sup>
<b>Pond E August 17, 2020</b>								
BRGWA-5S / BRGWC-33S	432.57	24.65	5108.0	0.005	2.73 to 5.47	0.2	0.07 to 0.13	24.0 to 48.2
	407.92							
PZ-4I / BRGWC-38S	449.79	38.67	3904.0	0.010	2.73 to 5.47	0.2	0.14 to 0.27	49.4 to 98.9
	411.12							

**Notes:**

1. Δ H = Change in groundwater elevation.
2. Δ L = Distance along flow path.
3.  $I = \Delta H / \Delta L$ .
4. Velocity =  $(I * K) / n_e$ .
5. Hydraulic conductivity range based on historic aquifer performance tests (revised 4/2019).
6. Effective porosity based on default values for effective porosity recommended by USEPA for a silty sand-type soil (USEPA, 1996).
7. NAVD88 = North American Vertical Datum 1988.

**TABLE 4B**  
**GROUNDWATER VELOCITY CALCULATIONS - September 2020**  
**Georgia Power - Plant Branch Ash Pond AP-E**  
**Milledgeville, GA**

Flow Paths	Groundwater Elevation (feet NAVD88) <sup>7</sup>	Δ H (feet) <sup>1</sup>	Δ L (feet) <sup>2</sup>	Hydraulic Gradient (Δ H/Δ L) <sup>3</sup>	Average Hydraulic Conductivity, K (feet per day) <sup>5</sup>	Assumed Effective Porosity (n <sub>e</sub> ) <sup>6</sup>	Average Linear Groundwater Velocity	
							(feet per day) <sup>4</sup>	(feet per year) <sup>4</sup>
<b>Pond E September 14, 2020</b>								
BRGWA-5S / BRGWC-33S	432.24	24.41	5110.0	0.005	2.73 to 5.47	0.2	0.07 to 0.13	23.8 to 47.7
	407.83							
PZ-4I / BRGWC-38S	449.44	39.01	3917.0	0.010	2.73 to 5.47	0.2	0.14 to 0.27	49.6 to 99.4
	410.43							

Notes:

1. Δ H = Change in groundwater elevation.
2. Δ L = Distance along flow path.
3.  $I = \Delta H / \Delta L$ .
4.  $Velocity = (I * K) / n_e$ .
5. Hydraulic conductivity range based on historic aquifer performance tests (revised 4/2019).
6. Effective porosity based on default values for effective porosity recommended by USEPA for a silty sand-type soil (USEPA, 1996).
7. NAVD88 = North American Vertical Datum 1988.

**TABLE 5A**  
**ANALYTICAL DATA SUMMARY - POND E (August 2020)**  
**GPC PLANT BRANCH**  
**MILLDEGEVILLE, GEORGIA**

Analyte	Units	Well ID											
		BRGWA-2S	BRGWA-2I	BRGWA-5S	BRGWA-5I	BRGWA-6S	BRGWC-17S	BRGWC-33S	BRGWC-34S	BRGWC-35S	BRGWC-36S	BRGWC-37S	BRGWC-38S
		8/18/2020	8/18/2020	8/18/2020	8/18/2020	8/18/2020	8/19/2020	8/19/2020	8/19/2020	8/19/2020	8/19/2020	8/19/2020	8/19/2020
<b>Appendix III</b>													
BORON, TOTAL	mg/L	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed
CALCIUM, TOTAL	mg/L	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed
CHLORIDE, TOTAL	mg/L	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed
FLUORIDE, TOTAL	mg/L	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	0.10	0.11	0.074 J	0.060 J	0.051 J	0.055 J	0.95
pH	S.U.	6.06	6.59	6.41	6.29	6.33	6.24	4.78	5.78	5.97	5.53	5.66	4.12
SULFATE, TOTAL	mg/L	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed
TOTAL DISSOLVED SOLIDS	mg/L	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed	Not Analyzed
<b>Appendix IV</b>													
ANTIMONY, TOTAL	mg/L	0.00042 J	0.00054 J	0.0016 J	< 0.00028	< 0.00028	< 0.00028	< 0.00028	< 0.00028	< 0.00028	< 0.00028	< 0.00028	< 0.00028
ARSENIC, TOTAL	mg/L	< 0.00078	< 0.00078	< 0.00078	< 0.00078	< 0.00078	< 0.00078	< 0.00078	< 0.00078	< 0.00078	< 0.00078	< 0.00078	0.0021 J
BARIUM, TOTAL	mg/L	0.010	0.010 J	0.040	0.022	0.014	0.047	0.020	0.024	0.040	0.037	0.026	0.016
BERYLLIUM, TOTAL	mg/L	< 0.000046	< 0.000046	< 0.000046	< 0.000046	< 0.000046	< 0.000046	0.0014 J	0.00015 J	0.00015 J	0.00011 J	< 0.000046	0.0079
CADMIUM, TOTAL	mg/L	< 0.00012	< 0.00012	< 0.00012	< 0.00012	< 0.00012	< 0.00012	0.00029 J	0.00018 J	< 0.00012	< 0.00012	< 0.00012	0.00056 J
CHROMIUM, TOTAL	mg/L	0.0085 J	0.00096 J	0.0050 J	0.0069 J	0.015	0.012	< 0.00055	< 0.00055	0.0073 J	0.0094 J	0.0017 J	0.0043 J
COBALT, TOTAL	mg/L	0.0014 J	< 0.00038	< 0.00038	0.00048 J	0.00061 J	< 0.00038	0.036	0.0041 J	< 0.00038	< 0.00038	< 0.00038	0.22
FLUORIDE, TOTAL	mg/L	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	0.10	0.11	0.074 J	0.060 J	0.051 J	0.055 J	0.95
LEAD, TOTAL	mg/L	< 0.000036	< 0.000036	0.00010 J	< 0.000036	< 0.000036	< 0.000036	0.000060 J	< 0.000036	< 0.000036	0.000047 J	< 0.000036	0.00031 J
LITHIUM, TOTAL	mg/L	< 0.00081	0.054	< 0.00081	0.00095 J	0.0026 J	0.0010 J	0.0090 J	0.00082 J	0.0021 J	0.0024 J	< 0.00081	0.021 J
MERCURY, TOTAL	mg/L	< 0.000078	< 0.000078	< 0.000078	< 0.000078	< 0.000078	0.000084 J	< 0.000078	0.00012 J	0.00013 J	0.00013 J	0.00014 J	0.00018 J
MOLYBDENUM, TOTAL	mg/L	< 0.00069	0.0011 J	< 0.00069	0.0015 J	< 0.00069	< 0.00069	< 0.00069	< 0.00069	< 0.00069	< 0.00069	< 0.00069	< 0.00069
RADIUM (226 + 228)	pCi/L	1.22 U	0.0861 U	0.581 U	0.530 U	0.453 U	0.985 U	1.14 U	1.21 U	0.162 U	1.40	0.582 U	3.17
SELENIUM, TOTAL	mg/L	< 0.0016	< 0.0016	< 0.0016	< 0.0016	< 0.0016	0.0030 J	< 0.0016	< 0.0016	< 0.0016	0.0020 J	< 0.0016	0.041
THALLIUM, TOTAL	mg/L	< 0.00014	< 0.00014	< 0.00014	< 0.00014	< 0.00014	< 0.00014	0.00018 J	< 0.00014	< 0.00014	< 0.00014	< 0.00014	0.00019 J

**NOTES:**

1. mg/L - milligrams per Liter
2. pCi/L - picocuries per Liter
3. S.U. - Standard Units
4. < indicates the substance was not detected above the analytical method detection limit (MDL). The value displayed is the method detection limit.
5. J indicates the substance was detected at such low levels that the precision of the laboratory instruments could not produce a reliable value. Therefore, the value displayed is qualified by the laboratory as an estimated number.
6. Radium data is a combination of radium isotopes 226 and 228. When results are reported below the MDC (Minimum Detectable Concentration), data is displayed with an accompanying U. The MDC varies depending upon the sample amount and elapsed time of the measurement.



**TABLE 5B**  
**ANALYTICAL DATA SUMMARY - POND E (September 2020)**  
 GPC PLANT BRANCH  
 MILLDEGEVILLE, GEORGIA

Analyte	Units	Well ID											
		BRGWA-2S	BRGWA-2I	BRGWA-5S	BRGWA-5I	BRGWA-6S	BRGWC-17S	BRGWC-33S	BRGWC-34S	BRGWC-35S	BRGWC-36S	BRGWC-37S	BRGWC-38S
		9/15/2020	9/15/2020	9/15/2020	9/15/2020	9/15/2020	9/16/2020	9/16/2020	9/16/2020	9/16/2020	9/16/2020	9/16/2020	9/17/2020
<b>Appendix III</b>													
BORON, TOTAL	mg/L	< 0.0052	< 0.0052	< 0.0052	< 0.0052	< 0.0052	0.0066 J	1.1	2.2	1.9	0.99	0.0062 J	1.4
CALCIUM, TOTAL	mg/L	3.9	14.1	16.8	12.7	3.7	37.9	37.9	77.7	61.8	45.9	3.2	33.1
CHLORIDE, TOTAL	mg/L	1.7	1.9	3.7	3.7	2.3	4.2	4.1	6.6	6.0	7.9	1.8	6.1
FLUORIDE, TOTAL	mg/L	< 0.050	< 0.050	0.051 J	< 0.050	< 0.050	0.10	0.085 J	0.077 J	0.062 J	< 0.050	< 0.050	0.68
pH	S.U.	6.01	6.64	6.25	6.27	6.43	6.26	4.78	5.81	5.96	5.58	5.84	4.17
SULFATE, TOTAL	mg/L	< 0.50	5.9	< 0.50	1.7	< 0.50	151	154	283	270	256	< 0.50	356
TOTAL DISSOLVED SOLIDS	mg/L	69	116	116	100	79	316	88	392	474	463	31	587
<b>Appendix IV</b>													
ANTIMONY, TOTAL	mg/L	< 0.00028	< 0.00028	< 0.00028	< 0.00028	< 0.00028	< 0.00028	< 0.00028	< 0.00028	< 0.00028	< 0.00028	< 0.00028	< 0.00028
ARSENIC, TOTAL	mg/L	< 0.00078	< 0.00078	< 0.00078	< 0.00078	< 0.00078	< 0.00078	< 0.00078	< 0.00078	< 0.00078	< 0.00078	< 0.00078	0.0015 J
BARIUM, TOTAL	mg/L	0.0094 J	0.0083 J	0.038	0.022	0.013	0.044	0.019	0.023	0.033	0.030	0.024	0.014
BERYLLIUM, TOTAL	mg/L	< 0.000046	< 0.000046	< 0.000046	< 0.000046	< 0.000046	< 0.000046	0.0015 J	0.00014 J	0.00014 J	0.000080 J	< 0.000046	0.0073
CADMIUM, TOTAL	mg/L	< 0.00012	< 0.00012	< 0.00012	< 0.00012	< 0.00012	< 0.00012	0.00032 J	0.00017 J	< 0.00012	< 0.00012	< 0.00012	0.00050 J
CHROMIUM, TOTAL	mg/L	0.0082 J	< 0.00055	0.0048 J	0.0069 J	0.014	0.012	< 0.00055	< 0.00055	0.0058 J	0.0064 J	0.0018 J	0.0042 J
COBALT, TOTAL	mg/L	0.0010 J	< 0.00038	< 0.00038	0.00050 J	< 0.00038	< 0.00038	0.034	0.0042 J	< 0.00038	< 0.00038	< 0.00038	0.20
FLUORIDE, TOTAL	mg/L	< 0.050	< 0.050	0.051 J	< 0.050	< 0.050	0.10	0.085 J	0.077 J	0.062 J	< 0.050	< 0.050	0.68
LEAD, TOTAL	mg/L	< 0.000036	< 0.000036	0.000043 J	0.0013 J	< 0.000036	0.000054 J	0.000063 J	< 0.000036	0.00012 J	< 0.000036	< 0.000036	0.00032 J
LITHIUM, TOTAL	mg/L	< 0.00081	0.033	< 0.00081	0.0010 J	0.0027 J	0.00096 J	0.0089 J	< 0.00081	0.0020 J	0.0022 J	< 0.00081	0.020 J
MERCURY, TOTAL	mg/L	< 0.000078	< 0.000078	< 0.000078	< 0.000078	< 0.000078	< 0.000078	< 0.000078	< 0.000078	< 0.000078	< 0.000078	< 0.000078	0.00011 J
MOLYBDENUM, TOTAL	mg/L	< 0.00069	0.00070 J	< 0.00069	0.0015 J	< 0.00069	< 0.00069	< 0.00069	< 0.00069	< 0.00069	< 0.00069	< 0.00069	< 0.00069
RADIUM (226 + 228)	pCi/L	0.579 U	0.0583 U	0.55 U	0.215 U	0.474 U	0.478 U	0.195 U	0.72 U	1.25 U	1.17 U	0.844 U	2.92
SELENIUM, TOTAL	mg/L	< 0.0016	< 0.0016	< 0.0016	< 0.0016	< 0.0016	< 0.0016	0.0028 J	< 0.0016	< 0.0016	0.0031 J	< 0.0016	0.029
THALLIUM, TOTAL	mg/L	< 0.00014	< 0.00014	< 0.00014	< 0.00014	< 0.00014	< 0.00014	0.00018 J	< 0.00014	< 0.00014	< 0.00014	< 0.00014	0.00017 J

**NOTES:**

1. mg/L - milligrams per Liter
2. pCi/L - picocuries per Liter
3. S.U. - Standard Units
4. < indicates the substance was not detected above the analytical method detection limit (MDL). The value displayed is the method detection limit.
5. J indicates the substance was detected at such low levels that the precision of the laboratory instruments could not produce a reliable value. Therefore, the value displayed is qualified by the laboratory as an estimated number.
6. Radium data is a combination of radium isotopes 226 and 228. When results are reported below the MDC (Minimum Detectable Concentration), data is displayed with an accompanying U. The MDC varies depending upon the sample amount and elapsed time of the measurement.

**APPENDIX A**

**ANALYTICAL RESULTS, FIELD DATA FORMS,  
WELL INSPECTION FORMS & DATA  
VALIDATION SUMMARIES**

**APPENDIX A**

# **ANALYTICAL RESULTS**

September 11, 2020

Joju Abraham  
Georgia Power-CCR  
2480 Maner Road  
Atlanta, GA 30339

RE: Project: BRANCH BCD/E BACKGROUND WELLS  
Pace Project No.: 92491389

Dear Joju Abraham:

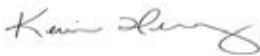
Enclosed are the analytical results for sample(s) received by the laboratory on August 19, 2020. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise 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
- 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: Daniela Herrera, Golder  
Ben Hodges, Georgia Power  
Jimmy Jones, Golder Associates Inc.  
Kristen Jurinko  
Julie Lehrman, Golder Associates Inc.  
Ms. Lauren Petty, Southern Co. Services  
Carolyn Powrozek, Golder  
Dawn Prell, Golder Associates Inc.  
Tim Richards, Golder Associates - Atlanta  
Brian Steele, Golder



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: BRANCH BCD/E BACKGROUND WELLS  
Pace Project No.: 92491389

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### 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 #: 191  
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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### 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

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### 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

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### 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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## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: BRANCH BCD/E BACKGROUND WELLS  
Pace Project No.: 92491389

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Lab ID	Sample ID	Matrix	Date Collected	Date Received
92491389001	BRGWA-5I	Water	08/18/20 09:40	08/19/20 10:10
92491389002	BRGWA-5S	Water	08/18/20 10:15	08/19/20 10:10
92491389003	BRGWA-2I	Water	08/18/20 10:45	08/19/20 10:10
92491389004	BRGWA-2S	Water	08/18/20 11:38	08/19/20 10:10
92491389005	BRGWA-6S	Water	08/18/20 12:48	08/19/20 10:10

## REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: BRANCH BCD/E BACKGROUND WELLS  
Pace Project No.: 92491389

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92491389001	BRGWA-5I	EPA 6020B	CW1	12	PASI-GA
		EPA 7470A	VB	1	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
92491389002	BRGWA-5S	EPA 6020B	CW1	12	PASI-GA
		EPA 7470A	VB	1	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
92491389003	BRGWA-2I	EPA 6020B	CW1	12	PASI-GA
		EPA 7470A	VB	1	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
92491389004	BRGWA-2S	EPA 6020B	CW1	12	PASI-GA
		EPA 7470A	VB	1	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
92491389005	BRGWA-6S	EPA 6020B	CW1	12	PASI-GA
		EPA 7470A	VB	1	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A

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

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: BRANCH BCD/E BACKGROUND WELLS

Pace Project No.: 92491389

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>92491389001</b>	<b>BRGWA-5I</b>					
	pH	6.29	Std. Units		09/09/20 17:00	
EPA 6020B	Barium	0.022	mg/L	0.010	08/21/20 17:42	
EPA 6020B	Chromium	0.0069J	mg/L	0.010	08/21/20 17:42	
EPA 6020B	Cobalt	0.00048J	mg/L	0.0050	08/21/20 17:42	
EPA 6020B	Lithium	0.00095J	mg/L	0.030	08/21/20 17:42	
EPA 6020B	Molybdenum	0.0015J	mg/L	0.010	08/21/20 17:42	
EPA 9315	Radium-226	0.0774 ± 0.196 (0.479)	pCi/L		09/02/20 07:40	
EPA 9320	Radium-228	C:76% T:NA 0.453 ± 0.459 (0.950)	pCi/L		09/09/20 12:05	
		C:53% T:92%				
Total Radium Calculation	Total Radium	0.530 ± 0.655 (1.43)	pCi/L		09/10/20 13:23	
<b>92491389002</b>	<b>BRGWA-5S</b>					
	pH	6.41	Std. Units		09/09/20 17:00	
EPA 6020B	Antimony	0.0016J	mg/L	0.0030	08/21/20 18:05	
EPA 6020B	Barium	0.040	mg/L	0.010	08/21/20 18:05	
EPA 6020B	Chromium	0.0050J	mg/L	0.010	08/21/20 18:05	
EPA 6020B	Lead	0.00010J	mg/L	0.0050	08/21/20 18:05	
EPA 9315	Radium-226	0.241 ± 0.241 (0.446)	pCi/L		09/02/20 07:41	
EPA 9320	Radium-228	C:86% T:NA 0.340 ± 0.449 (0.959)	pCi/L		09/09/20 12:05	
		C:59% T:93%				
Total Radium Calculation	Total Radium	0.581 ± 0.690 (1.41)	pCi/L		09/10/20 13:23	
<b>92491389003</b>	<b>BRGWA-2I</b>					
	pH	6.59	Std. Units		09/09/20 17:00	
EPA 6020B	Antimony	0.00054J	mg/L	0.0030	08/21/20 18:11	
EPA 6020B	Barium	0.010J	mg/L	0.010	08/21/20 18:11	
EPA 6020B	Chromium	0.00096J	mg/L	0.010	08/21/20 18:11	
EPA 6020B	Lithium	0.054	mg/L	0.030	08/21/20 18:11	
EPA 6020B	Molybdenum	0.0011J	mg/L	0.010	08/21/20 18:11	
EPA 9315	Radium-226	0.0861 ± 0.243 (0.593)	pCi/L		09/02/20 07:41	
		C:77% T:NA				

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: BRANCH BCD/E BACKGROUND WELLS

Pace Project No.: 92491389

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>92491389003</b>	<b>BRGWA-2I</b>					
EPA 9320	Radium-228	-0.176 ± 0.358 (0.872) C:61% T:91%	pCi/L		09/09/20 12:05	
Total Radium Calculation	Total Radium	0.0861 ± 0.601 (1.47)	pCi/L		09/10/20 13:23	
<b>92491389004</b>	<b>BRGWA-2S</b>					
	pH	6.06	Std. Units		09/09/20 17:00	
EPA 6020B	Antimony	0.00042J	mg/L	0.0030	08/21/20 18:17	
EPA 6020B	Barium	0.010	mg/L	0.010	08/21/20 18:17	
EPA 6020B	Chromium	0.0085J	mg/L	0.010	08/21/20 18:17	
EPA 6020B	Cobalt	0.0014J	mg/L	0.0050	08/21/20 18:17	
EPA 9315	Radium-226	0.189 ± 0.267 (0.570) C:70% T:NA	pCi/L		09/02/20 07:41	
EPA 9320	Radium-228	1.03 ± 0.516 (0.891) C:61% T:81%	pCi/L		09/09/20 12:05	
Total Radium Calculation	Total Radium	1.22 ± 0.783 (1.46)	pCi/L		09/10/20 13:23	
<b>92491389005</b>	<b>BRGWA-6S</b>					
	pH	6.33	Std. Units		09/09/20 17:00	
EPA 6020B	Barium	0.014	mg/L	0.010	08/21/20 18:22	
EPA 6020B	Chromium	0.015	mg/L	0.010	08/21/20 18:22	
EPA 6020B	Cobalt	0.00061J	mg/L	0.0050	08/21/20 18:22	
EPA 6020B	Lithium	0.0026J	mg/L	0.030	08/21/20 18:22	
EPA 9315	Radium-226	-0.0918 ± 0.174 (0.573) C:79% T:NA	pCi/L		09/02/20 08:46	
EPA 9320	Radium-228	0.453 ± 0.384 (0.763) C:66% T:81%	pCi/L		09/09/20 12:05	
Total Radium Calculation	Total Radium	0.453 ± 0.558 (1.34)	pCi/L		09/10/20 13:23	

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: BRANCH BCD/E BACKGROUND WELLS  
Pace Project No.: 92491389

Sample: BRGWA-5I		Lab ID: 92491389001		Collected: 08/18/20 09:40		Received: 08/19/20 10:10		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
pH	6.29	Std. Units			1		09/09/20 17:00		
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00028	1	08/20/20 14:56	08/21/20 17:42	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	08/20/20 14:56	08/21/20 17:42	7440-38-2	
Barium	0.022	mg/L	0.010	0.00071	1	08/20/20 14:56	08/21/20 17:42	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000046	1	08/20/20 14:56	08/21/20 17:42	7440-41-7	
Cadmium	ND	mg/L	0.0025	0.00012	1	08/20/20 14:56	08/21/20 17:42	7440-43-9	
Chromium	0.0069J	mg/L	0.010	0.00055	1	08/20/20 14:56	08/21/20 17:42	7440-47-3	
Cobalt	0.00048J	mg/L	0.0050	0.00038	1	08/20/20 14:56	08/21/20 17:42	7440-48-4	
Lead	ND	mg/L	0.0050	0.000036	1	08/20/20 14:56	08/21/20 17:42	7439-92-1	
Lithium	0.00095J	mg/L	0.030	0.00081	1	08/20/20 14:56	08/21/20 17:42	7439-93-2	
Molybdenum	0.0015J	mg/L	0.010	0.00069	1	08/20/20 14:56	08/21/20 17:42	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	08/20/20 14:56	08/21/20 17:42	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	08/20/20 14:56	08/21/20 17:42	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.000078	1	08/21/20 08:05	08/21/20 12:37	7439-97-6	
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Fluoride	ND	mg/L	0.10	0.050	1		08/20/20 17:51	16984-48-8	

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### ANALYTICAL RESULTS

Project: BRANCH BCD/E BACKGROUND WELLS  
 Pace Project No.: 92491389

**Sample: BRGWA-5S**      **Lab ID: 92491389002**      Collected: 08/18/20 10:15      Received: 08/19/20 10:10      Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
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**Field Data**

Analytical Method:  
 Pace Analytical Services - Charlotte

pH	6.41	Std. Units			1		09/09/20 17:00		
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**6020 MET ICPMS**

Analytical Method: EPA 6020B      Preparation Method: EPA 3005A  
 Pace Analytical Services - Peachtree Corners, GA

Antimony	0.0016J	mg/L	0.0030	0.00028	1	08/20/20 14:56	08/21/20 18:05	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	08/20/20 14:56	08/21/20 18:05	7440-38-2	
Barium	0.040	mg/L	0.010	0.00071	1	08/20/20 14:56	08/21/20 18:05	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000046	1	08/20/20 14:56	08/21/20 18:05	7440-41-7	
Cadmium	ND	mg/L	0.0025	0.00012	1	08/20/20 14:56	08/21/20 18:05	7440-43-9	
Chromium	0.0050J	mg/L	0.010	0.00055	1	08/20/20 14:56	08/21/20 18:05	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00038	1	08/20/20 14:56	08/21/20 18:05	7440-48-4	
Lead	0.00010J	mg/L	0.0050	0.000036	1	08/20/20 14:56	08/21/20 18:05	7439-92-1	
Lithium	ND	mg/L	0.030	0.00081	1	08/20/20 14:56	08/21/20 18:05	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	08/20/20 14:56	08/21/20 18:05	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	08/20/20 14:56	08/21/20 18:05	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	08/20/20 14:56	08/21/20 18:05	7440-28-0	

**7470 Mercury**

Analytical Method: EPA 7470A      Preparation Method: EPA 7470A  
 Pace Analytical Services - Peachtree Corners, GA

Mercury	ND	mg/L	0.00020	0.000078	1	08/21/20 08:05	08/21/20 12:47	7439-97-6	
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**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		08/20/20 19:52	16984-48-8	
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## ANALYTICAL RESULTS

Project: BRANCH BCD/E BACKGROUND WELLS  
Pace Project No.: 92491389

Sample: BRGWA-2I		Lab ID: 92491389003		Collected: 08/18/20 10:45		Received: 08/19/20 10:10		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
pH	6.59	Std. Units			1		09/09/20 17:00		
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Pace Analytical Services - Peachtree Corners, GA									
Antimony	0.00054J	mg/L	0.0030	0.00028	1	08/20/20 14:56	08/21/20 18:11	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	08/20/20 14:56	08/21/20 18:11	7440-38-2	
Barium	0.010J	mg/L	0.010	0.00071	1	08/20/20 14:56	08/21/20 18:11	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000046	1	08/20/20 14:56	08/21/20 18:11	7440-41-7	
Cadmium	ND	mg/L	0.0025	0.00012	1	08/20/20 14:56	08/21/20 18:11	7440-43-9	
Chromium	0.00096J	mg/L	0.010	0.00055	1	08/20/20 14:56	08/21/20 18:11	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00038	1	08/20/20 14:56	08/21/20 18:11	7440-48-4	
Lead	ND	mg/L	0.0050	0.000036	1	08/20/20 14:56	08/21/20 18:11	7439-92-1	
Lithium	0.054	mg/L	0.030	0.00081	1	08/20/20 14:56	08/21/20 18:11	7439-93-2	
Molybdenum	0.0011J	mg/L	0.010	0.00069	1	08/20/20 14:56	08/21/20 18:11	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	08/20/20 14:56	08/21/20 18:11	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	08/20/20 14:56	08/21/20 18:11	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.000078	1	08/21/20 08:05	08/21/20 12:49	7439-97-6	
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Fluoride	ND	mg/L	0.10	0.050	1		08/20/20 20:06	16984-48-8	

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## ANALYTICAL RESULTS

Project: BRANCH BCD/E BACKGROUND WELLS

Pace Project No.: 92491389

Sample: BRGWA-2S		Lab ID: 92491389004		Collected: 08/18/20 11:38		Received: 08/19/20 10:10		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
pH	6.06	Std. Units			1		09/09/20 17:00		
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Pace Analytical Services - Peachtree Corners, GA									
Antimony	0.00042J	mg/L	0.0030	0.00028	1	08/20/20 14:56	08/21/20 18:17	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	08/20/20 14:56	08/21/20 18:17	7440-38-2	
Barium	0.010	mg/L	0.010	0.00071	1	08/20/20 14:56	08/21/20 18:17	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000046	1	08/20/20 14:56	08/21/20 18:17	7440-41-7	
Cadmium	ND	mg/L	0.0025	0.00012	1	08/20/20 14:56	08/21/20 18:17	7440-43-9	
Chromium	0.0085J	mg/L	0.010	0.00055	1	08/20/20 14:56	08/21/20 18:17	7440-47-3	
Cobalt	0.0014J	mg/L	0.0050	0.00038	1	08/20/20 14:56	08/21/20 18:17	7440-48-4	
Lead	ND	mg/L	0.0050	0.000036	1	08/20/20 14:56	08/21/20 18:17	7439-92-1	
Lithium	ND	mg/L	0.030	0.00081	1	08/20/20 14:56	08/21/20 18:17	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	08/20/20 14:56	08/21/20 18:17	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	08/20/20 14:56	08/21/20 18:17	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	08/20/20 14:56	08/21/20 18:17	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.000078	1	08/21/20 08:05	08/21/20 12:51	7439-97-6	
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Fluoride	ND	mg/L	0.10	0.050	1		08/20/20 20:19	16984-48-8	

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## ANALYTICAL RESULTS

Project: BRANCH BCD/E BACKGROUND WELLS

Pace Project No.: 92491389

Sample: BRGWA-6S		Lab ID: 92491389005		Collected: 08/18/20 12:48		Received: 08/19/20 10:10		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
pH	6.33	Std. Units			1		09/09/20 17:00		
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00028	1	08/20/20 14:56	08/21/20 18:22	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	08/20/20 14:56	08/21/20 18:22	7440-38-2	
Barium	0.014	mg/L	0.010	0.00071	1	08/20/20 14:56	08/21/20 18:22	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000046	1	08/20/20 14:56	08/21/20 18:22	7440-41-7	
Cadmium	ND	mg/L	0.0025	0.00012	1	08/20/20 14:56	08/21/20 18:22	7440-43-9	
Chromium	0.015	mg/L	0.010	0.00055	1	08/20/20 14:56	08/21/20 18:22	7440-47-3	
Cobalt	0.00061J	mg/L	0.0050	0.00038	1	08/20/20 14:56	08/21/20 18:22	7440-48-4	
Lead	ND	mg/L	0.0050	0.000036	1	08/20/20 14:56	08/21/20 18:22	7439-92-1	
Lithium	0.0026J	mg/L	0.030	0.00081	1	08/20/20 14:56	08/21/20 18:22	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	08/20/20 14:56	08/21/20 18:22	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	08/20/20 14:56	08/21/20 18:22	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	08/20/20 14:56	08/21/20 18:22	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.000078	1	08/21/20 08:05	08/21/20 12:58	7439-97-6	
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Fluoride	ND	mg/L	0.10	0.050	1		08/20/20 20:33	16984-48-8	

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### QUALITY CONTROL DATA

Project: BRANCH BCD/E BACKGROUND WELLS  
Pace Project No.: 92491389

QC Batch: 561324 Analysis Method: EPA 6020B  
QC Batch Method: EPA 3005A Analysis Description: 6020 MET  
Laboratory: Pace Analytical Services - Peachtree Corners, GA  
Associated Lab Samples: 92491389001, 92491389002, 92491389003, 92491389004, 92491389005

METHOD BLANK: 2977587 Matrix: Water  
Associated Lab Samples: 92491389001, 92491389002, 92491389003, 92491389004, 92491389005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00028	08/21/20 17:31	
Arsenic	mg/L	ND	0.0050	0.00078	08/21/20 17:31	
Barium	mg/L	ND	0.010	0.00071	08/21/20 17:31	
Beryllium	mg/L	ND	0.0030	0.000046	08/21/20 17:31	
Cadmium	mg/L	ND	0.0025	0.00012	08/21/20 17:31	
Chromium	mg/L	ND	0.010	0.00055	08/21/20 17:31	
Cobalt	mg/L	ND	0.0050	0.00038	08/21/20 17:31	
Lead	mg/L	ND	0.0050	0.000036	08/21/20 17:31	
Lithium	mg/L	ND	0.030	0.00081	08/21/20 17:31	
Molybdenum	mg/L	ND	0.010	0.00069	08/21/20 17:31	
Selenium	mg/L	ND	0.010	0.0016	08/21/20 17:31	
Thallium	mg/L	ND	0.0010	0.00014	08/21/20 17:31	

LABORATORY CONTROL SAMPLE: 2977588

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.10	103	80-120	
Arsenic	mg/L	0.1	0.094	94	80-120	
Barium	mg/L	0.1	0.096	96	80-120	
Beryllium	mg/L	0.1	0.097	97	80-120	
Cadmium	mg/L	0.1	0.10	100	80-120	
Chromium	mg/L	0.1	0.10	100	80-120	
Cobalt	mg/L	0.1	0.099	99	80-120	
Lead	mg/L	0.1	0.097	97	80-120	
Lithium	mg/L	0.1	0.10	100	80-120	
Molybdenum	mg/L	0.1	0.096	96	80-120	
Selenium	mg/L	0.1	0.095	95	80-120	
Thallium	mg/L	0.1	0.096	96	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2977589 2977590

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		92491389001 Result	Spike Conc.	Spike Conc.	MS Result							MSD Result
Antimony	mg/L	ND	0.1	0.1	0.11	0.11	106	105	75-125	1	20	
Arsenic	mg/L	ND	0.1	0.1	0.094	0.095	94	95	75-125	2	20	
Barium	mg/L	0.022	0.1	0.1	0.13	0.12	108	96	75-125	9	20	
Beryllium	mg/L	ND	0.1	0.1	0.095	0.097	95	97	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: BRANCH BCD/E BACKGROUND WELLS

Pace Project No.: 92491389

Parameter	Units	2977589		2977590		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92491389001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result								
Cadmium	mg/L	ND	0.1	0.1	0.097	0.10	97	100	75-125	3	20		
Chromium	mg/L	0.0069J	0.1	0.1	0.11	0.11	102	101	75-125	1	20		
Cobalt	mg/L	0.00048J	0.1	0.1	0.10	0.099	99	99	75-125	1	20		
Lead	mg/L	ND	0.1	0.1	0.098	0.099	98	99	75-125	1	20		
Lithium	mg/L	0.00095J	0.1	0.1	0.098	0.098	97	97	75-125	0	20		
Molybdenum	mg/L	0.0015J	0.1	0.1	0.10	0.10	99	101	75-125	2	20		
Selenium	mg/L	ND	0.1	0.1	0.095	0.091	94	90	75-125	4	20		
Thallium	mg/L	ND	0.1	0.1	0.096	0.097	96	97	75-125	1	20		

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: BRANCH BCD/E BACKGROUND WELLS

Pace Project No.: 92491389

QC Batch:	561377	Analysis Method:	EPA 7470A
QC Batch Method:	EPA 7470A	Analysis Description:	7470 Mercury
		Laboratory:	Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92491389001, 92491389002, 92491389003, 92491389004, 92491389005

METHOD BLANK: 2977870 Matrix: Water

Associated Lab Samples: 92491389001, 92491389002, 92491389003, 92491389004, 92491389005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00050	0.000078	08/21/20 12:32	

LABORATORY CONTROL SAMPLE: 2977871

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

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2977872 2977873

Parameter	Units	2977872		2977873		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		92491389001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result							MSD Result
Mercury	mg/L	ND	0.0025	0.0025	0.0026	0.0026	104	106	75-125	2	20	

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### QUALITY CONTROL DATA

Project: BRANCH BCD/E BACKGROUND WELLS  
Pace Project No.: 92491389

QC Batch: 561236 Analysis Method: EPA 300.0 Rev 2.1 1993  
QC Batch Method: EPA 300.0 Rev 2.1 1993 Analysis Description: 300.0 IC Anions  
Laboratory: Pace Analytical Services - Asheville  
Associated Lab Samples: 92491389001, 92491389002, 92491389003, 92491389004, 92491389005

METHOD BLANK: 2977010 Matrix: Water  
Associated Lab Samples: 92491389001, 92491389002, 92491389003, 92491389004, 92491389005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Fluoride	mg/L	ND	0.10	0.050	08/20/20 16:29	

LABORATORY CONTROL SAMPLE: 2977011

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Fluoride	mg/L	2.5	2.4	95	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2977012 2977013

Parameter	Units	92490037006 Result	MS	MSD	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	Spike Conc.								
Fluoride	mg/L	0.055J	2.5	2.5	2.7	2.4	107	94	90-110	12	10	R1

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2977014 2977015

Parameter	Units	92491455002 Result	MS	MSD	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	Spike Conc.								
Fluoride	mg/L	ND	2.5	2.5	2.4	2.3	95	92	90-110	4	10	

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### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: BRANCH BCD/E BACKGROUND WELLS

Pace Project No.: 92491389

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
<b>Sample: BRGWA-5I</b> <b>Lab ID: 92491389001</b> Collected: 08/18/20 09:40      Received: 08/19/20 10:10      Matrix: Water PWS:      Site ID:      Sample Type:						
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.0774 ± 0.196 (0.479)</b> C:76% T:NA	pCi/L	09/02/20 07:40	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.453 ± 0.459 (0.950)</b> C:53% T:92%	pCi/L	09/09/20 12:05	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.530 ± 0.655 (1.43)</b>	pCi/L	09/10/20 13:23	7440-14-4	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: BRANCH BCD/E BACKGROUND WELLS

Pace Project No.: 92491389

**Sample: BRGWA-5S**      **Lab ID: 92491389002**      Collected: 08/18/20 10:15      Received: 08/19/20 10:10      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	<b>0.241 ± 0.241 (0.446)</b> <b>C:86% T:NA</b>	pCi/L	09/02/20 07:41	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.340 ± 0.449 (0.959)</b> <b>C:59% T:93%</b>	pCi/L	09/09/20 12:05	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.581 ± 0.690 (1.41)</b>	pCi/L	09/10/20 13:23	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: BRANCH BCD/E BACKGROUND WELLS

Pace Project No.: 92491389

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
<b>Sample: BRGWA-2I</b> <b>Lab ID: 92491389003</b> Collected: 08/18/20 10:45      Received: 08/19/20 10:10      Matrix: Water PWS:      Site ID:      Sample Type:						
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.0861 ± 0.243 (0.593)</b> <b>C:77% T:NA</b>	pCi/L	09/02/20 07:41	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>-0.176 ± 0.358 (0.872)</b> <b>C:61% T:91%</b>	pCi/L	09/09/20 12:05	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.0861 ± 0.601 (1.47)</b>	pCi/L	09/10/20 13:23	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: BRANCH BCD/E BACKGROUND WELLS

Pace Project No.: 92491389

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
<b>Sample: BRGWA-2S</b> <b>Lab ID: 92491389004</b> Collected: 08/18/20 11:38      Received: 08/19/20 10:10      Matrix: Water PWS:      Site ID:      Sample Type:						
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>0.189 ± 0.267 (0.570)</b> <b>C:70% T:NA</b>	pCi/L	09/02/20 07:41	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>1.03 ± 0.516 (0.891)</b> <b>C:61% T:81%</b>	pCi/L	09/09/20 12:05	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>1.22 ± 0.783 (1.46)</b>	pCi/L	09/10/20 13:23	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: BRANCH BCD/E BACKGROUND WELLS

Pace Project No.: 92491389

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
<b>Sample: BRGWA-6S</b> <b>Lab ID: 92491389005</b> Collected: 08/18/20 12:48      Received: 08/19/20 10:10      Matrix: Water PWS:      Site ID:      Sample Type:						
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>-0.0918 ± 0.174 (0.573)</b> <b>C:79% T:NA</b>	pCi/L	09/02/20 08:46	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>0.453 ± 0.384 (0.763)</b> <b>C:66% T:81%</b>	pCi/L	09/09/20 12:05	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.453 ± 0.558 (1.34)</b>	pCi/L	09/10/20 13:23	7440-14-4	

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: BRANCH BCD/E BACKGROUND WELLS

Pace Project No.: 92491389

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QC Batch:	411435	Analysis Method:	EPA 9320
QC Batch Method:	EPA 9320	Analysis Description:	9320 Radium 228
		Laboratory:	Pace Analytical Services - Greensburg

Associated Lab Samples: 92491389001, 92491389002, 92491389003, 92491389004, 92491389005

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METHOD BLANK: 1990342 Matrix: Water

Associated Lab Samples: 92491389001, 92491389002, 92491389003, 92491389004, 92491389005

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.664 ± 0.374 (0.672) C:70% T:89%	pCi/L	09/09/20 12:03	

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: BRANCH BCD/E BACKGROUND WELLS

Pace Project No.: 92491389

QC Batch: 411373

Analysis Method: EPA 9315

QC Batch Method: EPA 9315

Analysis Description: 9315 Total Radium

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 92491389001, 92491389002, 92491389003, 92491389004, 92491389005

METHOD BLANK: 1989993

Matrix: Water

Associated Lab Samples: 92491389001, 92491389002, 92491389003, 92491389004, 92491389005

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0671 ± 0.195 (0.481) C:88% T:NA	pCi/L	09/02/20 07:31	

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## QUALIFIERS

Project: BRANCH BCD/E BACKGROUND WELLS

Pace Project No.: 92491389

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### DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

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.

### ANALYTE QUALIFIERS

R1 RPD value was outside control limits.

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: BRANCH BCD/E BACKGROUND WELLS  
Pace Project No.: 92491389

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92491389001	BRGWA-5I				
92491389002	BRGWA-5S				
92491389003	BRGWA-2I				
92491389004	BRGWA-2S				
92491389005	BRGWA-6S				
92491389001	BRGWA-5I	EPA 3005A	561324	EPA 6020B	561396
92491389002	BRGWA-5S	EPA 3005A	561324	EPA 6020B	561396
92491389003	BRGWA-2I	EPA 3005A	561324	EPA 6020B	561396
92491389004	BRGWA-2S	EPA 3005A	561324	EPA 6020B	561396
92491389005	BRGWA-6S	EPA 3005A	561324	EPA 6020B	561396
92491389001	BRGWA-5I	EPA 7470A	561377	EPA 7470A	561555
92491389002	BRGWA-5S	EPA 7470A	561377	EPA 7470A	561555
92491389003	BRGWA-2I	EPA 7470A	561377	EPA 7470A	561555
92491389004	BRGWA-2S	EPA 7470A	561377	EPA 7470A	561555
92491389005	BRGWA-6S	EPA 7470A	561377	EPA 7470A	561555
92491389001	BRGWA-5I	EPA 9315	411373		
92491389002	BRGWA-5S	EPA 9315	411373		
92491389003	BRGWA-2I	EPA 9315	411373		
92491389004	BRGWA-2S	EPA 9315	411373		
92491389005	BRGWA-6S	EPA 9315	411373		
92491389001	BRGWA-5I	EPA 9320	411435		
92491389002	BRGWA-5S	EPA 9320	411435		
92491389003	BRGWA-2I	EPA 9320	411435		
92491389004	BRGWA-2S	EPA 9320	411435		
92491389005	BRGWA-6S	EPA 9320	411435		
92491389001	BRGWA-5I	Total Radium Calculation	413341		
92491389002	BRGWA-5S	Total Radium Calculation	413341		
92491389003	BRGWA-2I	Total Radium Calculation	413341		
92491389004	BRGWA-2S	Total Radium Calculation	413341		
92491389005	BRGWA-6S	Total Radium Calculation	413341		
92491389001	BRGWA-5I	EPA 300.0 Rev 2.1 1993	561236		
92491389002	BRGWA-5S	EPA 300.0 Rev 2.1 1993	561236		
92491389003	BRGWA-2I	EPA 300.0 Rev 2.1 1993	561236		
92491389004	BRGWA-2S	EPA 300.0 Rev 2.1 1993	561236		
92491389005	BRGWA-6S	EPA 300.0 Rev 2.1 1993	561236		

### REPORT OF LABORATORY ANALYSIS

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Sample Condition Upon Receipt

Client Name: GA Power

WO#: **92491389**



92491389

Courier:  Fed Ex  UPS  USPS  Client  Commercial  Pace Other  
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 233    Type of Ice: Wet Blue None  Samples on ice, cooling process has begun

Cooler Temperature 218    Biological Tissue is Frozen: Yes No  
Temp should be above freezing to 6°C

Date and Initials of person examining contents: 8/14/2006

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

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

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

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

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

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



Document Name:  
Bottle Identification Form (BIF)  
Document No.:  
F-CAR-CS-043-Rev.00

Document issued: March 14, 2019  
Page 1 of 1  
Issuing Authority:  
Pace Carolinas Quality Office

WO#: 92491389

PM: KLH1 Due Date: 09/02/20  
CLIENT: GR-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

Project #

Matrix	Item#	BP4U-125 mL Plastic Unpreserved (N/A) (C-)	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) (C-)	BP3H-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4C-125 mL Plastic NaOH (pH > 12) (C-)	WGFU-Wide-mouthed Glass Jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (C-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (C-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	AG3A(DG3A)-250 mL Amber NH4Cl (N/A)(C-)	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/GX (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)	AG9U-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 Office. Out of hold, incorrect preservative, out of temp, incorrect containers.



# CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

LAB USE ONLY- Affix Workorder/Login Label Here or List Pace Workorder Number or  
MTJL Log-in Number Here

## ALL SHADED AREAS are for LAB USE ONLY

Company: Georgia Power - Coal Combustion Residuals  
 Address: 2480 Maner Road  
 Atlanta, GA 30339  
 Report To: Joju Abraham  
 Copy To: Golder  
 phone (404) 506-7239  
 Email: jabraham@southernco.com  
 Project Name: Branch BCC Background Well  
 Project # CCR  
 Purchased By (print): Travis Mart nez, Andrea McClure  
 Turnaround Date Required  
 Rush  
 Same Day  Next Day  
 2 Day  3 Day  4 Day  5 Day  
 Expedite Charges Apply

Container Preservative Type \*\*  
 1 1 1  
 \*\* Preservative Types: (1) nitric acid, (2) sulfuric acid, (3) hydrochloric acid, (4) sodium hydroxide, (5) zinc acetate, (6) methanol, (7) sodium bisulfate, (8) sodium thiosulfate, (9) hexane, (A) ascorbic acid, (B) ammonium sulfate, (C) ammonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other

\* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Water (WT), Other (OT)

Customer Sample ID	Matrix *	Comp. Grab	Collected (or Composite Start)		Composite End		pH	# of Ctns
			Date	Time	Date	Time		
BRGWA-5I	GW	G	8-18-2020	0940			6.29	4
BRGWA-5S	GW	G	8-18-2020	1015			6.41	4
BRGWA-2I	GW	G	8-18-2020	1045			6.59	4
BRGWA-2S	GW	G	8-18-2020	1138			6.06	4
BRGWA-6S	GW	G	8-18-2020	1248			6.33	4

Metals App IV - see comments	Fluoride	Radium 226,228	Mercury
X	X	X	X
X	X	X	X
X	X	X	X
X	X	X	X

Lab Profile/Line:  
 Lab Sample Receipt Checklist:  
 Custody Seals Present/Intact Y N NA  
 Custody Signatures Present Y N NA  
 Collector Signature Present Y N NA  
 Bottles Intact Y N NA  
 Correct Bottles Y N NA  
 Sufficient Volume Y N NA  
 Samples Received on Ice Y N NA  
 VDA - Headspace Acceptable Y N NA  
 USDA Regulated Soils Y N NA  
 Samples in Holding Time Y N NA  
 Residual Chlorine Present Y N NA  
 Cl Strips:  
 Sample pH Acceptable Y N NA  
 pH Strips:  
 Sulfide Present Y N NA  
 Lead Acetate Strips:

LAB USE ONLY:  
Lab Sample # / Comments:  
42491389

(App IV Metals) Sb, As, Ba, Be, Cd, Cr, Co, Hg, Pb, Li, Mo, Se, Tl  
 Type of Ice Used: Wet Blue Dry None  
 Packing Material Used:  
 Radchem sample(s) screened (<500 cpm): Y N NA  
 Relinquished by/Company: (Signature) *J. Golder*  
 Date/Time: 8-19-2020/0815  
 Received by/Company: (Signature) *Charles Heals*  
 Date/Time: 8/19/2020/1010

SHORT HOLDS PRESENT (<72 hours): Y N N/A  
 Lab Tracking #:  
 Samples received via:  
 FEDEX UPS Client Courier Pace Courier  
 MTJL LAB USE ONLY  
 Table #:  
 Actnum:  
 Template:  
 Preflog:  
 PM:  
 PB:  
 Trip Blank Received: Y N NA  
 HCL MeOH TSP Other  
 Non Conformance(s):  
 YES / NO  
 Page: 1 of 1

September 11, 2020

Joju Abraham  
Georgia Power-CCR  
2480 Maner Road  
Atlanta, GA 30339

RE: Project: BRANCH E NETWORK WELLS  
Pace Project No.: 92491663

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on August 20, 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
- Pace Analytical Services - Greensburg

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

Sincerely,



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

Enclosures

cc: Daniela Herrera, Golder  
Ben Hodges, Georgia Power  
Jimmy Jones, Golder Associates Inc.  
Kristen Jurinko  
Julie Lehrman, Golder Associates Inc.  
Ms. Lauren Petty, Southern Co. Services  
Carolyn Powrozek, Golder  
Dawn Prell, Golder Associates Inc.  
Tim Richards, Golder Associates - Atlanta

Brian Steele, Golder



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: BRANCH E NETWORK WELLS  
Pace Project No.: 92491663

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### **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 #: 191  
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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### **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

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### **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

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### **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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## REPORT OF LABORATORY ANALYSIS

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### SAMPLE SUMMARY

Project: BRANCH E NETWORK WELLS  
Pace Project No.: 92491663

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92491663001	DUP-1	Water	08/19/20 00:00	08/20/20 10:03
92491663002	BRGWC-33S	Water	08/19/20 09:47	08/20/20 10:03
92491663003	BRGWC-34S	Water	08/19/20 10:34	08/20/20 10:03
92491663004	FB-1	Water	08/19/20 10:16	08/20/20 10:03
92491663005	BRGWC-35S	Water	08/19/20 11:25	08/20/20 10:03
92491663006	BRGWC-37S	Water	08/19/20 12:23	08/20/20 10:03
92491663007	BRGWC-38S	Water	08/19/20 13:26	08/20/20 10:03
92491663008	BRGWC-36S	Water	08/19/20 14:58	08/20/20 10:03
92491663009	BRGWC-17S	Water	08/19/20 16:27	08/20/20 10:03

### REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: BRANCH E NETWORK WELLS

Pace Project No.: 92491663

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92491663001	DUP-1	EPA 6020B	CW1	12	PASI-GA
		EPA 7470A	VB	1	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
92491663002	BRGWC-33S	EPA 6020B	CW1	12	PASI-GA
		EPA 7470A	VB	1	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
92491663003	BRGWC-34S	EPA 6020B	CW1	12	PASI-GA
		EPA 7470A	VB	1	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
92491663004	FB-1	EPA 6020B	CW1	12	PASI-GA
		EPA 7470A	VB	1	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
92491663005	BRGWC-35S	EPA 6020B	CW1	12	PASI-GA
		EPA 7470A	VB	1	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
92491663006	BRGWC-37S	EPA 6020B	CW1	12	PASI-GA
		EPA 7470A	VB	1	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
92491663007	BRGWC-38S	EPA 6020B	CW1	12	PASI-GA

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### SAMPLE ANALYTE COUNT

Project: BRANCH E NETWORK WELLS  
Pace Project No.: 92491663

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92491663008	BRGWC-36S	EPA 7470A	VB	1	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
		EPA 6020B	CW1	12	PASI-GA
		EPA 7470A	VB	1	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92491663009	BRGWC-17S	EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A
		EPA 6020B	CW1	12	PASI-GA
		EPA 7470A	VB	1	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
		EPA 300.0 Rev 2.1 1993	CDC	1	PASI-A

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

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: BRANCH E NETWORK WELLS

Pace Project No.: 92491663

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>92491663001</b>	<b>DUP-1</b>					
EPA 6020B	Barium	0.025	mg/L	0.010	08/25/20 18:05	
EPA 6020B	Beryllium	0.00012J	mg/L	0.0030	08/25/20 18:05	
EPA 6020B	Cadmium	0.00016J	mg/L	0.0025	08/25/20 18:05	
EPA 6020B	Cobalt	0.0042J	mg/L	0.0050	08/25/20 18:05	
EPA 9315	Radium-226	0.208 ± 0.117 (0.174) C:77% T:NA	pCi/L		09/02/20 17:59	
EPA 9320	Radium-228	1.08 ± 0.591 (1.08) C:70% T:77%	pCi/L		09/09/20 15:10	
Total Radium Calculation	Total Radium	1.29 ± 0.708 (1.25)	pCi/L		09/10/20 13:24	
EPA 300.0 Rev 2.1 1993	Fluoride	0.065J	mg/L	0.10	08/21/20 19:29	
<b>92491663002</b>	<b>BRGWC-33S</b>					
	pH	4.78	Std. Units		09/09/20 17:02	
EPA 6020B	Barium	0.020	mg/L	0.010	08/25/20 18:11	
EPA 6020B	Beryllium	0.0014J	mg/L	0.0030	08/25/20 18:11	
EPA 6020B	Cadmium	0.00029J	mg/L	0.0025	08/25/20 18:11	
EPA 6020B	Cobalt	0.036	mg/L	0.0050	08/25/20 18:11	
EPA 6020B	Lead	0.000060J	mg/L	0.0050	08/26/20 18:23	
EPA 6020B	Lithium	0.0090J	mg/L	0.030	08/25/20 18:11	
EPA 6020B	Thallium	0.00018J	mg/L	0.0010	08/26/20 18:23	
EPA 9315	Radium-226	0.270 ± 0.129 (0.180) C:84% T:NA	pCi/L		09/02/20 17:59	
EPA 9320	Radium-228	0.866 ± 0.525 (0.981) C:65% T:82%	pCi/L		09/09/20 15:10	
Total Radium Calculation	Total Radium	1.14 ± 0.654 (1.16)	pCi/L		09/10/20 13:24	
EPA 300.0 Rev 2.1 1993	Fluoride	0.11	mg/L	0.10	08/21/20 20:23	
<b>92491663003</b>	<b>BRGWC-34S</b>					
	pH	5.78	Std. Units		09/09/20 17:02	
EPA 6020B	Barium	0.024	mg/L	0.010	08/25/20 18:16	
EPA 6020B	Beryllium	0.00015J	mg/L	0.0030	08/25/20 18:16	
EPA 6020B	Cadmium	0.00018J	mg/L	0.0025	08/25/20 18:16	
EPA 6020B	Cobalt	0.0041J	mg/L	0.0050	08/25/20 18:16	
EPA 6020B	Lithium	0.00082J	mg/L	0.030	08/25/20 18:16	
EPA 7470A	Mercury	0.00012J	mg/L	0.00020	08/25/20 09:49	

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: BRANCH E NETWORK WELLS

Pace Project No.: 92491663

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>92491663003</b>	<b>BRGWC-34S</b>					
EPA 9315	Radium-226	0.344 ± 0.136 (0.166) C:81% T:NA	pCi/L		09/02/20 17:59	
EPA 9320	Radium-228	0.868 ± 0.608 (1.17) C:68% T:59%	pCi/L		09/09/20 15:10	
Total Radium Calculation	Total Radium	1.21 ± 0.744 (1.34)	pCi/L		09/10/20 13:24	
EPA 300.0 Rev 2.1 1993	Fluoride	0.074J	mg/L	0.10	08/21/20 20:36	
<b>92491663004</b>	<b>FB-1</b>					
EPA 7470A	Mercury	0.00012J	mg/L	0.00020	08/25/20 09:51	
EPA 9315	Radium-226	0.0526 ± 0.0700 (0.132) C:81% T:NA	pCi/L		09/02/20 17:59	
EPA 9320	Radium-228	0.705 ± 0.443 (0.820) C:71% T:75%	pCi/L		09/09/20 15:10	
Total Radium Calculation	Total Radium	0.758 ± 0.513 (0.952)	pCi/L		09/10/20 13:29	
<b>92491663005</b>	<b>BRGWC-35S</b>					
	pH	5.97	Std. Units		09/09/20 17:02	
EPA 6020B	Barium	0.040	mg/L	0.010	08/25/20 18:39	
EPA 6020B	Beryllium	0.00015J	mg/L	0.0030	08/25/20 18:39	
EPA 6020B	Chromium	0.0073J	mg/L	0.010	08/25/20 18:39	
EPA 6020B	Lithium	0.0021J	mg/L	0.030	08/25/20 18:39	
EPA 7470A	Mercury	0.00013J	mg/L	0.00020	08/25/20 09:59	
EPA 9315	Radium-226	0.117 ± 0.111 (0.202) C:92% T:NA	pCi/L		09/02/20 18:00	
EPA 9320	Radium-228	0.0450 ± 0.477 (1.10) C:70% T:76%	pCi/L		09/09/20 16:24	
Total Radium Calculation	Total Radium	0.162 ± 0.588 (1.30)	pCi/L		09/10/20 13:29	
EPA 300.0 Rev 2.1 1993	Fluoride	0.060J	mg/L	0.10	08/21/20 21:03	
<b>92491663006</b>	<b>BRGWC-37S</b>					
	pH	5.66	Std. Units		09/09/20 17:02	
EPA 6020B	Barium	0.026	mg/L	0.010	08/25/20 18:45	
EPA 6020B	Chromium	0.0017J	mg/L	0.010	08/25/20 18:45	

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: BRANCH E NETWORK WELLS

Pace Project No.: 92491663

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>92491663006</b>	<b>BRGWC-37S</b>					
EPA 7470A	Mercury	0.00014J	mg/L	0.00020	08/25/20 10:01	
EPA 9315	Radium-226	0.235 ± 0.132 (0.211) C:89% T:NA	pCi/L		09/03/20 16:47	
EPA 9320	Radium-228	0.347 ± 0.444 (0.941) C:70% T:81%	pCi/L		09/09/20 16:46	
Total Radium Calculation	Total Radium	0.582 ± 0.576 (1.15)	pCi/L		09/10/20 13:29	
EPA 300.0 Rev 2.1 1993	Fluoride	0.055J	mg/L	0.10	08/21/20 21:44	
<b>92491663007</b>	<b>BRGWC-38S</b>					
	pH	4.12	Std. Units		09/09/20 17:02	
EPA 6020B	Arsenic	0.0021J	mg/L	0.0050	08/25/20 18:51	
EPA 6020B	Barium	0.016	mg/L	0.010	08/25/20 18:51	
EPA 6020B	Beryllium	0.0079	mg/L	0.0030	08/25/20 18:51	
EPA 6020B	Cadmium	0.00056J	mg/L	0.0025	08/25/20 18:51	
EPA 6020B	Chromium	0.0043J	mg/L	0.010	08/25/20 18:51	
EPA 6020B	Cobalt	0.22	mg/L	0.0050	08/25/20 18:51	
EPA 6020B	Lead	0.00031J	mg/L	0.0050	08/26/20 19:03	
EPA 6020B	Lithium	0.021J	mg/L	0.030	08/25/20 18:51	
EPA 6020B	Selenium	0.041	mg/L	0.010	08/25/20 18:51	
EPA 6020B	Thallium	0.00019J	mg/L	0.0010	08/26/20 19:03	
EPA 7470A	Mercury	0.00018J	mg/L	0.00020	08/25/20 10:03	
EPA 9315	Radium-226	0.832 ± 0.221 (0.210) C:83% T:NA	pCi/L		09/03/20 16:47	
EPA 9320	Radium-228	2.34 ± 0.758 (1.07) C:67% T:86%	pCi/L		09/09/20 15:11	
Total Radium Calculation	Total Radium	3.17 ± 0.979 (1.28)	pCi/L		09/10/20 13:29	
EPA 300.0 Rev 2.1 1993	Fluoride	0.95	mg/L	0.10	08/21/20 21:57	
<b>92491663008</b>	<b>BRGWC-36S</b>					
	pH	5.53	Std. Units		09/09/20 17:02	
EPA 6020B	Barium	0.037	mg/L	0.010	08/25/20 18:56	
EPA 6020B	Beryllium	0.00011J	mg/L	0.0030	08/25/20 18:56	
EPA 6020B	Chromium	0.0094J	mg/L	0.010	08/25/20 18:56	
EPA 6020B	Lead	0.000047J	mg/L	0.0050	08/26/20 19:09	
EPA 6020B	Lithium	0.0024J	mg/L	0.030	08/25/20 18:56	
EPA 6020B	Selenium	0.0020J	mg/L	0.010	08/25/20 18:56	
EPA 7470A	Mercury	0.00013J	mg/L	0.00020	08/25/20 10:06	

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: BRANCH E NETWORK WELLS

Pace Project No.: 92491663

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>92491663008</b>	<b>BRGWC-36S</b>					
EPA 9315	Radium-226	0.467 ± 0.158 (0.187) C:94% T:NA	pCi/L		09/03/20 16:47	
EPA 9320	Radium-228	0.933 ± 0.441 (0.727) C:68% T:78%	pCi/L		09/09/20 12:01	
Total Radium Calculation	Total Radium	1.40 ± 0.599 (0.914)	pCi/L		09/10/20 15:11	
EPA 300.0 Rev 2.1 1993	Fluoride	0.051J	mg/L	0.10	08/21/20 22:11	
<b>92491663009</b>	<b>BRGWC-17S</b>					
	pH	6.24	Std. Units		09/09/20 17:02	
EPA 6020B	Barium	0.047	mg/L	0.010	08/27/20 15:20	
EPA 6020B	Chromium	0.012	mg/L	0.010	08/27/20 15:20	
EPA 6020B	Lithium	0.0010J	mg/L	0.030	08/27/20 15:20	
EPA 6020B	Selenium	0.0030J	mg/L	0.010	08/27/20 15:20	
EPA 7470A	Mercury	0.000084J	mg/L	0.00020	08/25/20 10:08	
EPA 9315	Radium-226	0.118 ± 0.0995 (0.173) C:88% T:NA	pCi/L		09/03/20 16:47	
EPA 9320	Radium-228	0.867 ± 0.503 (0.914) C:66% T:71%	pCi/L		09/09/20 12:02	
Total Radium Calculation	Total Radium	0.985 ± 0.603 (1.09)	pCi/L		09/10/20 15:11	
EPA 300.0 Rev 2.1 1993	Fluoride	0.10	mg/L	0.10	08/21/20 22:24	

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## ANALYTICAL RESULTS

Project: BRANCH E NETWORK WELLS  
Pace Project No.: 92491663

Sample: DUP-1		Lab ID: 92491663001		Collected: 08/19/20 00:00	Received: 08/20/20 10:03	Matrix: Water				
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00028	1	08/24/20 15:05	08/25/20 18:05	7440-36-0		
Arsenic	ND	mg/L	0.0050	0.00078	1	08/24/20 15:05	08/25/20 18:05	7440-38-2		
Barium	<b>0.025</b>	mg/L	0.010	0.00071	1	08/24/20 15:05	08/25/20 18:05	7440-39-3		
Beryllium	<b>0.00012J</b>	mg/L	0.0030	0.000046	1	08/24/20 15:05	08/25/20 18:05	7440-41-7		
Cadmium	<b>0.00016J</b>	mg/L	0.0025	0.00012	1	08/24/20 15:05	08/25/20 18:05	7440-43-9		
Chromium	ND	mg/L	0.010	0.00055	1	08/24/20 15:05	08/25/20 18:05	7440-47-3		
Cobalt	<b>0.0042J</b>	mg/L	0.0050	0.00038	1	08/24/20 15:05	08/25/20 18:05	7440-48-4		
Lead	ND	mg/L	0.0050	0.000036	1	08/24/20 15:05	08/26/20 18:17	7439-92-1		
Lithium	ND	mg/L	0.030	0.00081	1	08/24/20 15:05	08/25/20 18:05	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.00069	1	08/24/20 15:05	08/25/20 18:05	7439-98-7		
Selenium	ND	mg/L	0.010	0.0016	1	08/24/20 15:05	08/25/20 18:05	7782-49-2		
Thallium	ND	mg/L	0.0010	0.00014	1	08/24/20 15:05	08/26/20 18:17	7440-28-0		
<b>7470 Mercury</b>		Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00020	0.000078	1	08/24/20 11:30	08/25/20 09:37	7439-97-6		
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Fluoride	<b>0.065J</b>	mg/L	0.10	0.050	1		08/21/20 19:29	16984-48-8		

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### ANALYTICAL RESULTS

Project: BRANCH E NETWORK WELLS  
 Pace Project No.: 92491663

Sample: BRGWC-33S		Lab ID: 92491663002		Collected: 08/19/20 09:47		Received: 08/20/20 10:03		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
pH	4.78	Std. Units			1		09/09/20 17:02		
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00028	1	08/24/20 15:05	08/25/20 18:11	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	08/24/20 15:05	08/25/20 18:11	7440-38-2	
Barium	0.020	mg/L	0.010	0.00071	1	08/24/20 15:05	08/25/20 18:11	7440-39-3	
Beryllium	0.0014J	mg/L	0.0030	0.000046	1	08/24/20 15:05	08/25/20 18:11	7440-41-7	
Cadmium	0.00029J	mg/L	0.0025	0.00012	1	08/24/20 15:05	08/25/20 18:11	7440-43-9	
Chromium	ND	mg/L	0.010	0.00055	1	08/24/20 15:05	08/25/20 18:11	7440-47-3	
Cobalt	0.036	mg/L	0.0050	0.00038	1	08/24/20 15:05	08/25/20 18:11	7440-48-4	
Lead	0.000060J	mg/L	0.0050	0.000036	1	08/24/20 15:05	08/26/20 18:23	7439-92-1	
Lithium	0.0090J	mg/L	0.030	0.00081	1	08/24/20 15:05	08/25/20 18:11	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	08/24/20 15:05	08/25/20 18:11	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	08/24/20 15:05	08/25/20 18:11	7782-49-2	
Thallium	0.00018J	mg/L	0.0010	0.00014	1	08/24/20 15:05	08/26/20 18:23	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00020	0.000078	1	08/24/20 11:30	08/25/20 09:47	7439-97-6	
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Fluoride	0.11	mg/L	0.10	0.050	1		08/21/20 20:23	16984-48-8	

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## ANALYTICAL RESULTS

Project: BRANCH E NETWORK WELLS  
Pace Project No.: 92491663

Sample: BRGWC-34S		Lab ID: 92491663003		Collected: 08/19/20 10:34		Received: 08/20/20 10:03		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
pH	5.78	Std. Units			1		09/09/20 17:02		
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00028	1	08/24/20 15:05	08/25/20 18:16	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	08/24/20 15:05	08/25/20 18:16	7440-38-2	
Barium	0.024	mg/L	0.010	0.00071	1	08/24/20 15:05	08/25/20 18:16	7440-39-3	
Beryllium	0.00015J	mg/L	0.0030	0.000046	1	08/24/20 15:05	08/25/20 18:16	7440-41-7	
Cadmium	0.00018J	mg/L	0.0025	0.00012	1	08/24/20 15:05	08/25/20 18:16	7440-43-9	
Chromium	ND	mg/L	0.010	0.00055	1	08/24/20 15:05	08/25/20 18:16	7440-47-3	
Cobalt	0.0041J	mg/L	0.0050	0.00038	1	08/24/20 15:05	08/25/20 18:16	7440-48-4	
Lead	ND	mg/L	0.0050	0.000036	1	08/24/20 15:05	08/26/20 18:29	7439-92-1	
Lithium	0.00082J	mg/L	0.030	0.00081	1	08/24/20 15:05	08/25/20 18:16	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	08/24/20 15:05	08/25/20 18:16	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	08/24/20 15:05	08/25/20 18:16	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	08/24/20 15:05	08/26/20 18:29	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Pace Analytical Services - Peachtree Corners, GA									
Mercury	0.00012J	mg/L	0.00020	0.000078	1	08/24/20 11:30	08/25/20 09:49	7439-97-6	
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Fluoride	0.074J	mg/L	0.10	0.050	1		08/21/20 20:36	16984-48-8	

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### ANALYTICAL RESULTS

Project: BRANCH E NETWORK WELLS

Pace Project No.: 92491663

Sample: FB-1		Lab ID: 92491663004		Collected: 08/19/20 10:16		Received: 08/20/20 10:03		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA							
Antimony	ND	mg/L	0.0030	0.00028	1	08/24/20 15:05	08/25/20 18:34	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	08/24/20 15:05	08/25/20 18:34	7440-38-2	
Barium	ND	mg/L	0.010	0.00071	1	08/24/20 15:05	08/25/20 18:34	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000046	1	08/24/20 15:05	08/25/20 18:34	7440-41-7	
Cadmium	ND	mg/L	0.0025	0.00012	1	08/24/20 15:05	08/25/20 18:34	7440-43-9	
Chromium	ND	mg/L	0.010	0.00055	1	08/24/20 15:05	08/25/20 18:34	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00038	1	08/24/20 15:05	08/25/20 18:34	7440-48-4	
Lead	ND	mg/L	0.0050	0.000036	1	08/24/20 15:05	08/26/20 18:34	7439-92-1	
Lithium	ND	mg/L	0.030	0.00081	1	08/24/20 15:05	08/25/20 18:34	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	08/24/20 15:05	08/25/20 18:34	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	08/24/20 15:05	08/25/20 18:34	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	08/24/20 15:05	08/26/20 18:34	7440-28-0	
<b>7470 Mercury</b>		Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA							
Mercury	<b>0.00012J</b>	mg/L	0.00020	0.000078	1	08/24/20 11:30	08/25/20 09:51	7439-97-6	
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville							
Fluoride	ND	mg/L	0.10	0.050	1		08/21/20 20:50	16984-48-8	

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## ANALYTICAL RESULTS

Project: BRANCH E NETWORK WELLS

Pace Project No.: 92491663

Sample: BRGWC-35S		Lab ID: 92491663005		Collected: 08/19/20 11:25		Received: 08/20/20 10:03		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
pH	5.97	Std. Units			1		09/09/20 17:02		
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00028	1	08/24/20 15:05	08/25/20 18:39	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	08/24/20 15:05	08/25/20 18:39	7440-38-2	
Barium	0.040	mg/L	0.010	0.00071	1	08/24/20 15:05	08/25/20 18:39	7440-39-3	
Beryllium	0.00015J	mg/L	0.0030	0.000046	1	08/24/20 15:05	08/25/20 18:39	7440-41-7	
Cadmium	ND	mg/L	0.0025	0.00012	1	08/24/20 15:05	08/25/20 18:39	7440-43-9	
Chromium	0.0073J	mg/L	0.010	0.00055	1	08/24/20 15:05	08/25/20 18:39	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00038	1	08/24/20 15:05	08/25/20 18:39	7440-48-4	
Lead	ND	mg/L	0.0050	0.000036	1	08/24/20 15:05	08/26/20 18:52	7439-92-1	
Lithium	0.0021J	mg/L	0.030	0.00081	1	08/24/20 15:05	08/25/20 18:39	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	08/24/20 15:05	08/25/20 18:39	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	08/24/20 15:05	08/25/20 18:39	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	08/24/20 15:05	08/26/20 18:52	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Pace Analytical Services - Peachtree Corners, GA									
Mercury	0.00013J	mg/L	0.00020	0.000078	1	08/24/20 11:30	08/25/20 09:59	7439-97-6	
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Fluoride	0.060J	mg/L	0.10	0.050	1		08/21/20 21:03	16984-48-8	

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### ANALYTICAL RESULTS

Project: BRANCH E NETWORK WELLS

Pace Project No.: 92491663

Sample: BRGWC-37S		Lab ID: 92491663006		Collected: 08/19/20 12:23		Received: 08/20/20 10:03		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
pH	5.66	Std. Units			1		09/09/20 17:02		
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00028	1	08/24/20 15:05	08/25/20 18:45	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	08/24/20 15:05	08/25/20 18:45	7440-38-2	
Barium	0.026	mg/L	0.010	0.00071	1	08/24/20 15:05	08/25/20 18:45	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000046	1	08/24/20 15:05	08/25/20 18:45	7440-41-7	
Cadmium	ND	mg/L	0.0025	0.00012	1	08/24/20 15:05	08/25/20 18:45	7440-43-9	
Chromium	0.0017J	mg/L	0.010	0.00055	1	08/24/20 15:05	08/25/20 18:45	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00038	1	08/24/20 15:05	08/25/20 18:45	7440-48-4	
Lead	ND	mg/L	0.0050	0.000036	1	08/24/20 15:05	08/26/20 18:57	7439-92-1	
Lithium	ND	mg/L	0.030	0.00081	1	08/24/20 15:05	08/25/20 18:45	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	08/24/20 15:05	08/25/20 18:45	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	08/24/20 15:05	08/25/20 18:45	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	08/24/20 15:05	08/26/20 18:57	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Pace Analytical Services - Peachtree Corners, GA									
Mercury	0.00014J	mg/L	0.00020	0.000078	1	08/24/20 11:30	08/25/20 10:01	7439-97-6	
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Fluoride	0.055J	mg/L	0.10	0.050	1		08/21/20 21:44	16984-48-8	

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## ANALYTICAL RESULTS

Project: BRANCH E NETWORK WELLS  
Pace Project No.: 92491663

Sample: BRGWC-38S		Lab ID: 92491663007		Collected: 08/19/20 13:26		Received: 08/20/20 10:03		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
pH	4.12	Std. Units			1		09/09/20 17:02		
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00028	1	08/24/20 15:05	08/25/20 18:51	7440-36-0	
Arsenic	0.0021J	mg/L	0.0050	0.00078	1	08/24/20 15:05	08/25/20 18:51	7440-38-2	
Barium	0.016	mg/L	0.010	0.00071	1	08/24/20 15:05	08/25/20 18:51	7440-39-3	
Beryllium	0.0079	mg/L	0.0030	0.000046	1	08/24/20 15:05	08/25/20 18:51	7440-41-7	
Cadmium	0.00056J	mg/L	0.0025	0.00012	1	08/24/20 15:05	08/25/20 18:51	7440-43-9	
Chromium	0.0043J	mg/L	0.010	0.00055	1	08/24/20 15:05	08/25/20 18:51	7440-47-3	
Cobalt	0.22	mg/L	0.0050	0.00038	1	08/24/20 15:05	08/25/20 18:51	7440-48-4	
Lead	0.00031J	mg/L	0.0050	0.000036	1	08/24/20 15:05	08/26/20 19:03	7439-92-1	
Lithium	0.021J	mg/L	0.030	0.00081	1	08/24/20 15:05	08/25/20 18:51	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	08/24/20 15:05	08/25/20 18:51	7439-98-7	
Selenium	0.041	mg/L	0.010	0.0016	1	08/24/20 15:05	08/25/20 18:51	7782-49-2	
Thallium	0.00019J	mg/L	0.0010	0.00014	1	08/24/20 15:05	08/26/20 19:03	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Pace Analytical Services - Peachtree Corners, GA									
Mercury	0.00018J	mg/L	0.00020	0.000078	1	08/24/20 11:30	08/25/20 10:03	7439-97-6	
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Fluoride	0.95	mg/L	0.10	0.050	1		08/21/20 21:57	16984-48-8	

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## ANALYTICAL RESULTS

Project: BRANCH E NETWORK WELLS  
Pace Project No.: 92491663

Sample: BRGWC-36S		Lab ID: 92491663008		Collected: 08/19/20 14:58		Received: 08/20/20 10:03		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
pH	5.53	Std. Units			1		09/09/20 17:02		
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00028	1	08/24/20 15:05	08/25/20 18:56	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	08/24/20 15:05	08/25/20 18:56	7440-38-2	
Barium	0.037	mg/L	0.010	0.00071	1	08/24/20 15:05	08/25/20 18:56	7440-39-3	
Beryllium	0.00011J	mg/L	0.0030	0.000046	1	08/24/20 15:05	08/25/20 18:56	7440-41-7	
Cadmium	ND	mg/L	0.0025	0.00012	1	08/24/20 15:05	08/25/20 18:56	7440-43-9	
Chromium	0.0094J	mg/L	0.010	0.00055	1	08/24/20 15:05	08/25/20 18:56	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00038	1	08/24/20 15:05	08/25/20 18:56	7440-48-4	
Lead	0.000047J	mg/L	0.0050	0.000036	1	08/24/20 15:05	08/26/20 19:09	7439-92-1	
Lithium	0.0024J	mg/L	0.030	0.00081	1	08/24/20 15:05	08/25/20 18:56	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	08/24/20 15:05	08/25/20 18:56	7439-98-7	
Selenium	0.0020J	mg/L	0.010	0.0016	1	08/24/20 15:05	08/25/20 18:56	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	08/24/20 15:05	08/26/20 19:09	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Pace Analytical Services - Peachtree Corners, GA									
Mercury	0.00013J	mg/L	0.00020	0.000078	1	08/24/20 11:30	08/25/20 10:06	7439-97-6	
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Fluoride	0.051J	mg/L	0.10	0.050	1		08/21/20 22:11	16984-48-8	

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### ANALYTICAL RESULTS

Project: BRANCH E NETWORK WELLS  
 Pace Project No.: 92491663

Sample: BRGWC-17S		Lab ID: 92491663009		Collected: 08/19/20 16:27		Received: 08/20/20 10:03		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
pH	6.24	Std. Units			1		09/09/20 17:02		
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00028	1	08/24/20 15:10	08/27/20 15:20	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	08/24/20 15:10	08/27/20 15:20	7440-38-2	
Barium	0.047	mg/L	0.010	0.00071	1	08/24/20 15:10	08/27/20 15:20	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000046	1	08/24/20 15:10	08/27/20 15:20	7440-41-7	
Cadmium	ND	mg/L	0.0025	0.00012	1	08/24/20 15:10	08/27/20 15:20	7440-43-9	
Chromium	0.012	mg/L	0.010	0.00055	1	08/24/20 15:10	08/27/20 15:20	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00038	1	08/24/20 15:10	08/27/20 15:20	7440-48-4	
Lead	ND	mg/L	0.0050	0.000036	1	08/24/20 15:10	08/27/20 15:20	7439-92-1	
Lithium	0.0010J	mg/L	0.030	0.00081	1	08/24/20 15:10	08/27/20 15:20	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	08/24/20 15:10	08/27/20 15:20	7439-98-7	
Selenium	0.0030J	mg/L	0.010	0.0016	1	08/24/20 15:10	08/27/20 15:20	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	08/24/20 15:10	08/27/20 15:20	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Pace Analytical Services - Peachtree Corners, GA									
Mercury	0.000084J	mg/L	0.00020	0.000078	1	08/24/20 11:30	08/25/20 10:08	7439-97-6	
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Fluoride	0.10	mg/L	0.10	0.050	1		08/21/20 22:24	16984-48-8	

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### QUALITY CONTROL DATA

Project: BRANCH E NETWORK WELLS

Pace Project No.: 92491663

QC Batch:	561963	Analysis Method:	EPA 6020B
QC Batch Method:	EPA 3005A	Analysis Description:	6020 MET
		Laboratory:	Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92491663001, 92491663002, 92491663003, 92491663004, 92491663005, 92491663006, 92491663007, 92491663008

METHOD BLANK: 2980652 Matrix: Water

Associated Lab Samples: 92491663001, 92491663002, 92491663003, 92491663004, 92491663005, 92491663006, 92491663007, 92491663008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00028	08/25/20 16:08	
Arsenic	mg/L	ND	0.0050	0.00078	08/25/20 16:08	
Barium	mg/L	ND	0.010	0.00071	08/25/20 16:08	
Beryllium	mg/L	ND	0.0030	0.000046	08/25/20 16:08	
Cadmium	mg/L	ND	0.0025	0.00012	08/25/20 16:08	
Chromium	mg/L	ND	0.010	0.00055	08/25/20 16:08	
Cobalt	mg/L	ND	0.0050	0.00038	08/25/20 16:08	
Lead	mg/L	ND	0.0050	0.000036	08/26/20 16:20	
Lithium	mg/L	ND	0.030	0.00081	08/25/20 16:08	
Molybdenum	mg/L	ND	0.010	0.00069	08/25/20 16:08	
Selenium	mg/L	ND	0.010	0.0016	08/25/20 16:08	
Thallium	mg/L	ND	0.0010	0.00014	08/26/20 16:20	

LABORATORY CONTROL SAMPLE: 2980653

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	0.096	96	80-120	
Barium	mg/L	0.1	0.097	97	80-120	
Beryllium	mg/L	0.1	0.098	98	80-120	
Cadmium	mg/L	0.1	0.099	99	80-120	
Chromium	mg/L	0.1	0.099	99	80-120	
Cobalt	mg/L	0.1	0.098	98	80-120	
Lead	mg/L	0.1	0.10	100	80-120	
Lithium	mg/L	0.1	0.098	98	80-120	
Molybdenum	mg/L	0.1	0.097	97	80-120	
Selenium	mg/L	0.1	0.098	98	80-120	
Thallium	mg/L	0.1	0.10	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2980654 2980655

Parameter	Units	92491455013 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	MS Spike Conc.	MSD Spike Conc.	MS Result						
Antimony	mg/L	0.00064J	0.1	0.1	0.1	0.10	101	99	75-125	2	20	
Arsenic	mg/L	ND	0.1	0.1	0.099	0.099	99	99	75-125	0	20	
Barium	mg/L	0.12	0.1	0.1	0.24	0.23	115	114	75-125	0	20	

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### QUALITY CONTROL DATA

Project: BRANCH E NETWORK WELLS

Pace Project No.: 92491663

Parameter	Units	92491455013		2980654		2980655		% Rec	% Rec	% Rec	Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec							
Beryllium	mg/L	ND	0.1	0.1	0.098	0.099	98	99	75-125	0	20			
Cadmium	mg/L	0.00058J	0.1	0.1	0.096	0.096	95	95	75-125	0	20			
Chromium	mg/L	0.0015J	0.1	0.1	0.10	0.10	100	100	75-125	0	20			
Cobalt	mg/L	0.00040J	0.1	0.1	0.10	0.10	99	99	75-125	0	20			
Lead	mg/L	0.00035J	0.1	0.1	0.094	0.093	94	93	75-125	1	20			
Lithium	mg/L	ND	0.1	0.1	0.096	0.098	96	97	75-125	1	20			
Molybdenum	mg/L	0.00077J	0.1	0.1	0.10	0.10	102	99	75-125	2	20			
Selenium	mg/L	0.0028J	0.1	0.1	0.10	0.10	99	99	75-125	0	20			
Thallium	mg/L	0.00021J	0.1	0.1	0.094	0.093	94	93	75-125	1	20			

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### QUALITY CONTROL DATA

Project: BRANCH E NETWORK WELLS  
Pace Project No.: 92491663

QC Batch: 561964 Analysis Method: EPA 6020B  
QC Batch Method: EPA 3005A Analysis Description: 6020 MET  
Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92491663009

METHOD BLANK: 2980659 Matrix: Water  
Associated Lab Samples: 92491663009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00028	08/27/20 15:08	
Arsenic	mg/L	ND	0.0050	0.00078	08/27/20 15:08	
Barium	mg/L	ND	0.010	0.00071	08/27/20 15:08	
Beryllium	mg/L	ND	0.0030	0.000046	08/27/20 15:08	
Cadmium	mg/L	ND	0.0025	0.00012	08/27/20 15:08	
Chromium	mg/L	ND	0.010	0.00055	08/27/20 15:08	
Cobalt	mg/L	ND	0.0050	0.00038	08/27/20 15:08	
Lead	mg/L	ND	0.0050	0.000036	08/27/20 15:08	
Lithium	mg/L	ND	0.030	0.00081	08/27/20 15:08	
Molybdenum	mg/L	ND	0.010	0.00069	08/27/20 15:08	
Selenium	mg/L	ND	0.010	0.0016	08/27/20 15:08	
Thallium	mg/L	ND	0.0010	0.00014	08/27/20 15:08	

LABORATORY CONTROL SAMPLE: 2980660

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.10	101	80-120	
Arsenic	mg/L	0.1	0.097	97	80-120	
Barium	mg/L	0.1	0.099	99	80-120	
Beryllium	mg/L	0.1	0.099	99	80-120	
Cadmium	mg/L	0.1	0.099	99	80-120	
Chromium	mg/L	0.1	0.099	99	80-120	
Cobalt	mg/L	0.1	0.10	100	80-120	
Lead	mg/L	0.1	0.10	100	80-120	
Lithium	mg/L	0.1	0.10	101	80-120	
Molybdenum	mg/L	0.1	0.099	99	80-120	
Selenium	mg/L	0.1	0.096	96	80-120	
Thallium	mg/L	0.1	0.10	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2980661 2980662

Parameter	Units	92491663009		2980662		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Antimony	mg/L	ND	0.1	0.10	0.10	103	102	75-125	1	20	
Arsenic	mg/L	ND	0.1	0.10	0.10	101	100	75-125	1	20	
Barium	mg/L	0.047	0.1	0.14	0.14	98	97	75-125	0	20	
Beryllium	mg/L	ND	0.1	0.097	0.096	97	96	75-125	1	20	

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### QUALITY CONTROL DATA

Project: BRANCH E NETWORK WELLS

Pace Project No.: 92491663

Parameter	Units	2980661		2980662		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92491663009 Result	MS Spike Conc.	MSD Spike Conc.	MS Result								
Cadmium	mg/L	ND	0.1	0.1	0.10	0.098	100	98	75-125	2	20		
Chromium	mg/L	0.012	0.1	0.1	0.12	0.11	106	102	75-125	4	20		
Cobalt	mg/L	ND	0.1	0.1	0.10	0.10	103	102	75-125	1	20		
Lead	mg/L	ND	0.1	0.1	0.10	0.10	100	100	75-125	0	20		
Lithium	mg/L	0.0010J	0.1	0.1	0.10	0.099	98	98	75-125	0	20		
Molybdenum	mg/L	ND	0.1	0.1	0.10	0.10	103	100	75-125	2	20		
Selenium	mg/L	0.0030J	0.1	0.1	0.10	0.10	99	102	75-125	3	20		
Thallium	mg/L	ND	0.1	0.1	0.10	0.10	101	102	75-125	1	20		

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### QUALITY CONTROL DATA

Project: BRANCH E NETWORK WELLS

Pace Project No.: 92491663

QC Batch:	561900	Analysis Method:	EPA 7470A
QC Batch Method:	EPA 7470A	Analysis Description:	7470 Mercury
		Laboratory:	Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92491663001, 92491663002, 92491663003, 92491663004, 92491663005, 92491663006, 92491663007, 92491663008, 92491663009

METHOD BLANK: 2980098 Matrix: Water

Associated Lab Samples: 92491663001, 92491663002, 92491663003, 92491663004, 92491663005, 92491663006, 92491663007, 92491663008, 92491663009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00050	0.000078	08/25/20 09:32	

LABORATORY CONTROL SAMPLE: 2980099

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.0025	0.0026	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2980100 2980101

Parameter	Units	2980100		2980101		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Mercury	mg/L	ND	0.0025	0.0023	0.0024	90	94	75-125	3	20	

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### QUALITY CONTROL DATA

Project: BRANCH E NETWORK WELLS  
Pace Project No.: 92491663

QC Batch: 561506 Analysis Method: EPA 300.0 Rev 2.1 1993  
QC Batch Method: EPA 300.0 Rev 2.1 1993 Analysis Description: 300.0 IC Anions  
Laboratory: Pace Analytical Services - Asheville  
Associated Lab Samples: 92491663001, 92491663002, 92491663003, 92491663004, 92491663005, 92491663006, 92491663007, 92491663008, 92491663009

METHOD BLANK: 2978310 Matrix: Water  
Associated Lab Samples: 92491663001, 92491663002, 92491663003, 92491663004, 92491663005, 92491663006, 92491663007, 92491663008, 92491663009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Fluoride	mg/L	ND	0.10	0.050	08/21/20 17:28	

LABORATORY CONTROL SAMPLE: 2978311

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Fluoride	mg/L	2.5	2.4	98	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2978312 2978313

Parameter	Units	92491393004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Fluoride	mg/L	0.17	2.5	2.5	3.0	3.0	112	112	90-110	0	10	M1

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2978314 2978315

Parameter	Units	92491663005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Fluoride	mg/L	0.060J	2.5	2.5	2.7	2.7	105	106	90-110	1	10	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: BRANCH E NETWORK WELLS

Pace Project No.: 92491663

**Sample: DUP-1**      **Lab ID: 92491663001**      Collected: 08/19/20 00:00      Received: 08/20/20 10:03      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	<b>0.208 ± 0.117 (0.174)</b> <b>C:77% T:NA</b>	pCi/L	09/02/20 17:59	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>1.08 ± 0.591 (1.08)</b> <b>C:70% T:77%</b>	pCi/L	09/09/20 15:10	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>1.29 ± 0.708 (1.25)</b>	pCi/L	09/10/20 13:24	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: BRANCH E NETWORK WELLS

Pace Project No.: 92491663

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
<b>Sample: BRGWC-33S</b> <b>Lab ID: 92491663002</b> Collected: 08/19/20 09:47      Received: 08/20/20 10:03      Matrix: Water PWS:      Site ID:      Sample Type:						
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.270 ± 0.129 (0.180)</b> <b>C:84% T:NA</b>	pCi/L	09/02/20 17:59	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.866 ± 0.525 (0.981)</b> <b>C:65% T:82%</b>	pCi/L	09/09/20 15:10	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>1.14 ± 0.654 (1.16)</b>	pCi/L	09/10/20 13:24	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: BRANCH E NETWORK WELLS

Pace Project No.: 92491663

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
<b>Sample: BRGWC-34S</b> <b>Lab ID: 92491663003</b> Collected: 08/19/20 10:34      Received: 08/20/20 10:03      Matrix: Water PWS:      Site ID:      Sample Type:						
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.344 ± 0.136 (0.166)</b> <b>C:81% T:NA</b>	pCi/L	09/02/20 17:59	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.868 ± 0.608 (1.17)</b> <b>C:68% T:59%</b>	pCi/L	09/09/20 15:10	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>1.21 ± 0.744 (1.34)</b>	pCi/L	09/10/20 13:24	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: BRANCH E NETWORK WELLS

Pace Project No.: 92491663

**Sample: FB-1**      **Lab ID: 92491663004**      Collected: 08/19/20 10:16      Received: 08/20/20 10:03      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	<b>0.0526 ± 0.0700 (0.132)</b> <b>C:81% T:NA</b>	pCi/L	09/02/20 17:59	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.705 ± 0.443 (0.820)</b> <b>C:71% T:75%</b>	pCi/L	09/09/20 15:10	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.758 ± 0.513 (0.952)</b>	pCi/L	09/10/20 13:29	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: BRANCH E NETWORK WELLS

Pace Project No.: 92491663

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
<b>Sample: BRGWC-35S</b> <b>Lab ID: 92491663005</b> Collected: 08/19/20 11:25      Received: 08/20/20 10:03      Matrix: Water PWS:      Site ID:      Sample Type:						
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>0.117 ± 0.111 (0.202)</b> <b>C:92% T:NA</b>	pCi/L	09/02/20 18:00	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>0.0450 ± 0.477 (1.10)</b> <b>C:70% T:76%</b>	pCi/L	09/09/20 16:24	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.162 ± 0.588 (1.30)</b>	pCi/L	09/10/20 13:29	7440-14-4	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: BRANCH E NETWORK WELLS

Pace Project No.: 92491663

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
<b>Sample: BRGWC-37S</b> <b>Lab ID: 92491663006</b> Collected: 08/19/20 12:23      Received: 08/20/20 10:03      Matrix: Water PWS:      Site ID:      Sample Type:						
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.235 ± 0.132 (0.211)</b> <b>C:89% T:NA</b>	pCi/L	09/03/20 16:47	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.347 ± 0.444 (0.941)</b> <b>C:70% T:81%</b>	pCi/L	09/09/20 16:46	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.582 ± 0.576 (1.15)</b>	pCi/L	09/10/20 13:29	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: BRANCH E NETWORK WELLS

Pace Project No.: 92491663

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
<b>Sample: BRGWC-38S</b> <b>Lab ID: 92491663007</b> Collected: 08/19/20 13:26      Received: 08/20/20 10:03      Matrix: Water PWS:      Site ID:      Sample Type:						
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.832 ± 0.221 (0.210)</b> <b>C:83% T:NA</b>	pCi/L	09/03/20 16:47	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>2.34 ± 0.758 (1.07)</b> <b>C:67% T:86%</b>	pCi/L	09/09/20 15:11	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>3.17 ± 0.979 (1.28)</b>	pCi/L	09/10/20 13:29	7440-14-4	

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**ANALYTICAL RESULTS - RADIOCHEMISTRY**

Project: BRANCH E NETWORK WELLS

Pace Project No.: 92491663

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
<b>Sample: BRGWC-36S</b> <b>Lab ID: 92491663008</b> Collected: 08/19/20 14:58      Received: 08/20/20 10:03      Matrix: Water PWS:      Site ID:      Sample Type:						
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.467 ± 0.158 (0.187)</b> <b>C:94% T:NA</b>	pCi/L	09/03/20 16:47	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.933 ± 0.441 (0.727)</b> <b>C:68% T:78%</b>	pCi/L	09/09/20 12:01	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>1.40 ± 0.599 (0.914)</b>	pCi/L	09/10/20 15:11	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: BRANCH E NETWORK WELLS

Pace Project No.: 92491663

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
<b>Sample: BRGWC-17S</b> <b>Lab ID: 92491663009</b> Collected: 08/19/20 16:27      Received: 08/20/20 10:03      Matrix: Water PWS:      Site ID:      Sample Type:						
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.118 ± 0.0995 (0.173)</b> <b>C:88% T:NA</b>	pCi/L	09/03/20 16:47	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.867 ± 0.503 (0.914)</b> <b>C:66% T:71%</b>	pCi/L	09/09/20 12:02	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.985 ± 0.603 (1.09)</b>	pCi/L	09/10/20 15:11	7440-14-4	

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: BRANCH E NETWORK WELLS

Pace Project No.: 92491663

QC Batch: 411439

Analysis Method: EPA 9320

QC Batch Method: EPA 9320

Analysis Description: 9320 Radium 228

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 92491663008, 92491663009

METHOD BLANK: 1990347

Matrix: Water

Associated Lab Samples: 92491663008, 92491663009

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.274 ± 0.326 (0.685) C:63% T:88%	pCi/L	09/09/20 12:01	

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

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: BRANCH E NETWORK WELLS  
Pace Project No.: 92491663

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QC Batch:	411436	Analysis Method:	EPA 9320
QC Batch Method:	EPA 9320	Analysis Description:	9320 Radium 228
		Laboratory:	Pace Analytical Services - Greensburg

Associated Lab Samples: 92491663001, 92491663002, 92491663003, 92491663004, 92491663005, 92491663006, 92491663007

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METHOD BLANK: 1990343 Matrix: Water

Associated Lab Samples: 92491663001, 92491663002, 92491663003, 92491663004, 92491663005, 92491663006, 92491663007

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.245 ± 0.335 (0.716) C:71% T:90%	pCi/L	09/09/20 15:09	

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: BRANCH E NETWORK WELLS

Pace Project No.: 92491663

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QC Batch:	411375	Analysis Method:	EPA 9315
QC Batch Method:	EPA 9315	Analysis Description:	9315 Total Radium
		Laboratory:	Pace Analytical Services - Greensburg

Associated Lab Samples: 92491663006, 92491663007, 92491663008, 92491663009

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METHOD BLANK: 1989998 Matrix: Water

Associated Lab Samples: 92491663006, 92491663007, 92491663008, 92491663009

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.135 ± 0.115 (0.203) C:91% T:NA	pCi/L	09/03/20 16:47	

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

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: BRANCH E NETWORK WELLS  
Pace Project No.: 92491663

QC Batch:	411374	Analysis Method:	EPA 9315
QC Batch Method:	EPA 9315	Analysis Description:	9315 Total Radium
		Laboratory:	Pace Analytical Services - Greensburg

Associated Lab Samples: 92491663001, 92491663002, 92491663003, 92491663004, 92491663005

METHOD BLANK:	1989996	Matrix:	Water
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Associated Lab Samples: 92491663001, 92491663002, 92491663003, 92491663004, 92491663005

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.241 ± 0.165 (0.285) C:87% T:NA	pCi/L	09/02/20 18:01	

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## QUALIFIERS

Project: BRANCH E NETWORK WELLS

Pace Project No.: 92491663

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### DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

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.

### ANALYTE QUALIFIERS

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

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: BRANCH E NETWORK WELLS  
Pace Project No.: 92491663

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92491663002	BRGWC-33S				
92491663003	BRGWC-34S				
92491663005	BRGWC-35S				
92491663006	BRGWC-37S				
92491663007	BRGWC-38S				
92491663008	BRGWC-36S				
92491663009	BRGWC-17S				
92491663001	DUP-1	EPA 3005A	561963	EPA 6020B	562039
92491663002	BRGWC-33S	EPA 3005A	561963	EPA 6020B	562039
92491663003	BRGWC-34S	EPA 3005A	561963	EPA 6020B	562039
92491663004	FB-1	EPA 3005A	561963	EPA 6020B	562039
92491663005	BRGWC-35S	EPA 3005A	561963	EPA 6020B	562039
92491663006	BRGWC-37S	EPA 3005A	561963	EPA 6020B	562039
92491663007	BRGWC-38S	EPA 3005A	561963	EPA 6020B	562039
92491663008	BRGWC-36S	EPA 3005A	561963	EPA 6020B	562039
92491663009	BRGWC-17S	EPA 3005A	561964	EPA 6020B	562041
92491663001	DUP-1	EPA 7470A	561900	EPA 7470A	562049
92491663002	BRGWC-33S	EPA 7470A	561900	EPA 7470A	562049
92491663003	BRGWC-34S	EPA 7470A	561900	EPA 7470A	562049
92491663004	FB-1	EPA 7470A	561900	EPA 7470A	562049
92491663005	BRGWC-35S	EPA 7470A	561900	EPA 7470A	562049
92491663006	BRGWC-37S	EPA 7470A	561900	EPA 7470A	562049
92491663007	BRGWC-38S	EPA 7470A	561900	EPA 7470A	562049
92491663008	BRGWC-36S	EPA 7470A	561900	EPA 7470A	562049
92491663009	BRGWC-17S	EPA 7470A	561900	EPA 7470A	562049
92491663001	DUP-1	EPA 9315	411374		
92491663002	BRGWC-33S	EPA 9315	411374		
92491663003	BRGWC-34S	EPA 9315	411374		
92491663004	FB-1	EPA 9315	411374		
92491663005	BRGWC-35S	EPA 9315	411374		
92491663006	BRGWC-37S	EPA 9315	411375		
92491663007	BRGWC-38S	EPA 9315	411375		
92491663008	BRGWC-36S	EPA 9315	411375		
92491663009	BRGWC-17S	EPA 9315	411375		
92491663001	DUP-1	EPA 9320	411436		
92491663002	BRGWC-33S	EPA 9320	411436		
92491663003	BRGWC-34S	EPA 9320	411436		
92491663004	FB-1	EPA 9320	411436		
92491663005	BRGWC-35S	EPA 9320	411436		
92491663006	BRGWC-37S	EPA 9320	411436		
92491663007	BRGWC-38S	EPA 9320	411436		
92491663008	BRGWC-36S	EPA 9320	411439		
92491663009	BRGWC-17S	EPA 9320	411439		
92491663001	DUP-1	Total Radium Calculation	413343		
92491663002	BRGWC-33S	Total Radium Calculation	413343		

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: BRANCH E NETWORK WELLS  
Pace Project No.: 92491663

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92491663003	BRGWC-34S	Total Radium Calculation	413343		
92491663004	FB-1	Total Radium Calculation	413344		
92491663005	BRGWC-35S	Total Radium Calculation	413344		
92491663006	BRGWC-37S	Total Radium Calculation	413344		
92491663007	BRGWC-38S	Total Radium Calculation	413344		
92491663008	BRGWC-36S	Total Radium Calculation	413382		
92491663009	BRGWC-17S	Total Radium Calculation	413382		
92491663001	DUP-1	EPA 300.0 Rev 2.1 1993	561506		
92491663002	BRGWC-33S	EPA 300.0 Rev 2.1 1993	561506		
92491663003	BRGWC-34S	EPA 300.0 Rev 2.1 1993	561506		
92491663004	FB-1	EPA 300.0 Rev 2.1 1993	561506		
92491663005	BRGWC-35S	EPA 300.0 Rev 2.1 1993	561506		
92491663006	BRGWC-37S	EPA 300.0 Rev 2.1 1993	561506		
92491663007	BRGWC-38S	EPA 300.0 Rev 2.1 1993	561506		
92491663008	BRGWC-36S	EPA 300.0 Rev 2.1 1993	561506		
92491663009	BRGWC-17S	EPA 300.0 Rev 2.1 1993	561506		

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**CHAIN-OF-CUSTODY Analytical Request Document**

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

Company: Georgia Power Coal Combustion Residuals  
 Address: 2480 Maner Road  
 Atlanta, GA 30339  
 Report To: Joju Abraham  
 Email To: scsinvo ces@southernco.com

Copy To: Golder  
 Site Collect on info/Address: Plant Branch

Phone: (404) 506-7239  
 Email: jabraham@southernco.com

State: Georgia City: Milledgeville Time Zone Collected:  
 PT  MT  CT  ET

Project Name: Branch E Network Weis  
 Project # CCR  
 Pace Profile#

Collected By (print): Travis Martinez, Andrea McClure  
 Purchase Order #  
 Quote #  
 Turnaround Date Required:  
 Rush:  Same Day  Next Day  
 2 Day  3 Day  4 Day  5 Day  
 (Expedite Charges Apply)

Pace Project Manager:  
 kevin.herring@pacelabs.com  
 Immediately Packed on Ice:  
 Yes  No  
 Field Filtered (if applicable):  
 Yes  No  
 Analysis:

LAB USE ONLY - Affix Workorder/Login Label Here or List Pace Workorder #

**W0# : 92491663**

ALL SI

Container Present:  1  2

92491663

\*\* Preservative Types: (1) nitric acid, (2) sulfuric acid, (3) hydrochloric acid, (4) zinc acetate, (5) methanol, (7) sodium bisulfate, (8) sodium thiosulfate, (9) hexane, (A) ascorbic acid, (B) ammonium sulfate, (C) ammonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other

\* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Water (WT), Other (OT)

Customer Sample ID	Matrix *	Comp / Grab	Collected (or Composite Start)		Composite End		pH	# of Ctns
			Date	Time	Date	Time		
DUP-1	GW	G	8-19-2020	-			-	4
BRGWC-33s	GW	G	8-19-2020	0947			4.78	4
BRGWC-34s	GW	G	8-19-2020	1034			5.78	4
FB-1	WT	G	8-19-2020	1016			-	4
BRGWC-35s	GW	G	8-19-2020	1125			5.97	6
BRGWC-37s	GW	G	8-19-2020	1223			5.66	4
BRGWC-38s	GW	G	8-19-2020	1326			4.12	4
BRGWC-36s	GW	G	8-19-2020	1458			5.53	6
BRGWC-17s	GW	G	8-19-2020	1627			6.24	4

Analyses	Metals App IV - see comments	Fluoride	Radium 226,228	Mercury	Lab Profile/Line:
	X	X	X	X	Lab Sample Receipt Checklist: Custody Seals Present/Intact Y N NA Custody Signatures Present Y N NA Collector Signatures Present Y N NA Bottles Intact Y N NA Correct Bottles Y N NA Sufficient Volume Y N NA Samples Received on Ice Y N NA VOA - Headspace Acceptable Y N NA USDA Regulated Soils Y N NA Samples in Holding Time Y N NA Residual Chlorine Present Y N NA CI Strips: Sample pH Acceptable Y N NA pH Strips: Sulfide Present Y N NA Lead Acetate Strips:
	X	X	X	X	
	X	X	X	X	
	X	X	X	X	Rad-1(+2 Radium)
	X	X	X	X	Rad-2(+2 Radium)
	X	X	X	X	

(App IV Metals): Sb, As, Ba, Be, Cd, Cr, Co, Hg, Pb, Li, Mo, Se, Tl

Type of Ice Used: Wet Blue Dry None

Packing Material Used:

Radchem sample(s) screened (<500 cpm): Y N NA

SHORT HOLDS PRESENT (<72 hours): Y N N/A

Lab Tracking #:

Samples received via:  
 FEDEX UPS Client Courier Pace Courier

LAB Sample Temperature Info:  
 Temp Blank Received: Y N NA  
 Therm ID#: TH231  
 Cooler 1 Temp Upon Receipt: 0.7  
 Cooler 1 Therm Corr. Factor: 0.0  
 Cooler 1 Corrected Temp: 0.7  
 Comments:

Relinquished by/Company: (Signature) Tom Golder  
 Date/Time: 8-20-2020/0815

Received by/Company: (Signature) K. Welly Pace  
 Date/Time: 8/20/20 1005

Relinquished by/Company: (Signature)  
 Date/Time:

Received by/Company: (Signature)  
 Date/Time:

MTJL LAB USE ONLY

Table #:  
 Accnum:  
 Template:  
 Prelogin:  
 PM:  
 PB:

Trip Blank Received: Y N NA  
 HCL MeOH TSP Other

Non Conformance(s): YES / NO  
 Page: 1 of 1



Document Name:  
Bottle Identification Form (BIF)  
Document No.:  
F-CAR-CS-043-Rev.00

Document Issued: March 14, 2019  
Page 1 of 1  
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.

Project #

WO#: 92491663

PM: KLH1

Due Date: 09/03/20

CLIENT: GA-GA Power

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 Pipstic Unpreserved (N/A) (C-)	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) (C-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4C-125 mL Plastic NaOH (pH > 12) (C-)	WGFU-Wide-mouthed Glass Jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (C-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (C-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	AG3A(DG3A)-250 mL Amber NH4Cl (N/A)(C-)	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)	AGDU-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																													

BPIN - Red

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.





## Quality Control Sample Performance Assessment

Test: Ra-226  
Analyst: LAL  
Date: 9/2/2020  
Worklist: 55838  
Matrix: DW

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

Method Blank Assessment		
MB Sample ID	1989996	
MB concentration:	0.241	
M/B Counting Uncertainty:	0.161	
MB MDC:	0.285	
MB Numerical Performance Indicator:	2.94	
MB Status vs Numerical Indicator:	N/A	
MB Status vs. MDC:	Pass	

Laboratory Control Sample Assessment	LCS/D (Y or N)?	N
	LCS55838	LCS/D55838
Count Date:	9/2/2020	
Spike I.D.:	19-033	
Decay Corrected Spike Concentration (pCi/mL):	24.045	
Volume Used (mL):	0.10	
Aliquot Volume (L, g, F):	0.501	
Target Conc. (pCi/L, g, F):	4.798	
Uncertainty (Calculated):	0.058	
Result (pCi/L, g, F):	4.336	
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.343	
Numerical Performance Indicator:	-2.60	
Percent Recovery:	90.37%	
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.:	92491663005	Enter Duplicate
Duplicate Sample I.D.:	92491663005DUP	sample IDs if
Sample Result (pCi/L, g, F):	0.117	other than
Sample Result Counting Uncertainty (pCi/L, g, F):	0.110	LCS/LCSD in
Sample Duplicate Result (pCi/L, g, F):	0.098	the space below.
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.087	
Are sample and/or duplicate results below RL?	See Below ##	
Duplicate Numerical Performance Indicator:	0.253	92491663005
Duplicate RPD:	16.83%	92491663005DUP
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 9/3/2020

Qua. 3.20



## Quality Control Sample Performance Assessment

Test: Ra-228  
Analyst: LAL  
Date: 9/2/2020  
Worklist: 55838  
Matrix: DW

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

Method Blank Assessment		
MB Sample ID	1989996	
MB concentration:	0.241	
M/B Counting Uncertainty:	0.161	
MB MDC:	0.285	
MB Numerical Performance Indicator:	2.94	
MB Status vs Numerical Indicator:	N/A	
MB Status vs. MDC:	Pass	

Laboratory Control Sample Assessment	LCSD (Y or N)?	Y
	LCSD55838	LCSD55838
Count Date:	9/2/2020	9/2/2020
Spike I.D.:	19-033	19-033
Decay Corrected Spike Concentration (pCi/mL):	24.045	24.045
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.501	0.509
Target Conc. (pCi/L, g, F):	4.798	4.720
Uncertainty (Calculated):	0.058	0.057
Result (pCi/L, g, F):	4.336	4.783
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.343	0.364
Numerical Performance Indicator:	-2.60	0.34
Percent Recovery:	90.37%	101.35%
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.:	LCSD55838	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.:	LCSD55838	
Sample Result (pCi/L, g, F):	4.336	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.343	
Sample Duplicate Result (pCi/L, g, F):	4.783	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.364	
Are sample and/or duplicate results below RL?	NO	
Duplicate Numerical Performance Indicator:	-1.753	92491663005
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	11.46%	92491663005DUP
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:

AM 9/3/2020

Cee 9.3.20



## Quality Control Sample Performance Assessment

Test: Ra-226  
Analyst: LAL  
Date: 9/3/2020  
Worklist: 55839  
Matrix: DW

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

Method Blank Assessment	
MB Sample ID	1989998
MB concentration:	0.135
M/B Counting Uncertainty:	0.113
MB MDC:	0.203
MB Numerical Performance Indicator:	2.34
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	
	LCS55839	LCS55839
Count Date:	9/4/2020	
Spike I.D.:	19-033	
Decay Corrected Spike Concentration (pCi/mL):	24.045	
Volume Used (mL):	0.10	
Aliquot Volume (L, g, F):	0.502	
Target Conc. (pCi/L, g, F):	4.785	
Uncertainty (Calculated):	0.057	
Result (pCi/L, g, F):	4.098	
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.782	
Numerical Performance Indicator:	-1.72	
Percent Recovery:	85.84%	
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.:	92491393012	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.:	92491393012DUP	
Sample Result (pCi/L, g, F):	0.684	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.375	
Sample Duplicate Result (pCi/L, g, F):	0.377	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.254	
Are sample and/or duplicate results below RL?	See Below ##	
Duplicate Numerical Performance Indicator:	1.327	
Duplicate RPD:	57.84%	92491393012
Duplicate Status vs Numerical Indicator:	N/A	92491393012DUP
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

LAL 9/4/2020

LAL 9/4/2020

*Quar...*



## Quality Control Sample Performance Assessment

Test: Ra-226  
Analyst: LAL  
Date: 9/3/2020  
Worklist: 55839  
Matrix: DW

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

Method Blank Assessment		
MB Sample ID	1989998	
MB concentration:	0.135	
M/B Counting Uncertainty:	0.113	
MB MDC:	0.203	
MB Numerical Performance Indicator:	2.34	
MB Status vs Numerical Indicator:	N/A	
MB Status vs. MDC:	Pass	

Laboratory Control Sample Assessment	LCSD (Y or N)?	N
	LCSD55839	LCSD55839
Count Date:	9/4/2020	
Spike I.D.:	19-033	
Decay Corrected Spike Concentration (pCi/mL):	24.045	
Volume Used (mL):	0.10	
Aliquot Volume (L, g, F):	0.502	
Target Conc. (pCi/L, g, F):	4.785	
Uncertainty (Calculated):	0.057	
Result (pCi/L, g, F):	4.098	
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.782	
Numerical Performance Indicator:	-1.72	
Percent Recovery:	85.64%	
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	LCSD (Y or N)?	N
Sample I.D.:	92491663008	Enter Duplicate
Duplicate Sample I.D.:	92491663008DUP	sample IDs if
Sample Result (pCi/L, g, F):	0.467	other than
Sample Result Counting Uncertainty (pCi/L, g, F):	0.143	LCS/LCSD in
Sample Duplicate Result (pCi/L, g, F):	0.359	the space below.
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.256	
Are sample and/or duplicate results below RL?	See Below ##	
Duplicate Numerical Performance Indicator:	0.728	92491663008
Duplicate RPD:	26.34%	92491663008DUP
Duplicate Status vs Numerical Indicator:	N/A	
Duplicate Status vs RPD:	Fail***	
% RPD Limit:	25%	

Matrix Spike/Matrix Spike Duplicate Sample Assessment	MS/MSD 1	MS/MSD 2
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 CAM 9/4/2020

*Cam 9/4/20*



## Quality Control Sample Performance Assessment

Test: Ra-228  
Analyst: VAL  
Date: 9/2/2020  
Worklist: 55852  
Matrix: WT

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

Method Blank Assessment	
MB Sample ID	1990343
MB concentration:	0.245
M/B 2 Sigma CSU:	0.335
MB MDC:	0.716
MB Numerical Performance Indicator:	1.43
MB Status vs Numerical Indicator:	Pass
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	
	LCSD55852	LCSD55852
Count Date:	9/9/2020	9/9/2020
Spike I.D.:	20-030	20-030
Decay Corrected Spike Concentration (pCi/mL):	38.470	38.470
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.801	0.802
Target Conc. (pCi/L, g, F):	4.804	4.799
Uncertainty (Calculated):	0.235	0.235
Result (pCi/L, g, F):	4.151	5.838
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	1.079	1.360
Numerical Performance Indicator:	-1.16	1.47
Percent Recovery:	86.42%	121.64%
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.:	LCSD55852	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.:	LCSD55852	
Sample Result (pCi/L, g, F):	4.151	
Sample Result 2 Sigma CSU (pCi/L, g, F):	1.079	
Sample Duplicate Result (pCi/L, g, F):	5.838	
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	1.360	
Are sample and/or duplicate results below RL?	NO	
Duplicate Numerical Performance Indicator:	-1.903	
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	33.85%	
Duplicate Status vs Numerical Indicator:	Pass	
Duplicate Status vs RPD:	Pass	
% RPD Limit:	36%	

Matrix Spike/Matrix Spike Duplicate Sample Assessment	MS/MSD 1	MS/MSD 2
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:

*Handwritten signature/initials*

*Handwritten signature/initials*



## Quality Control Sample Performance Assessment

Test: Ra-228  
Analyst: VAL  
Date: 9/2/2020  
Worklist: 55853  
Matrix: WT

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

Method Blank Assessment	
MB Sample ID	1990347
MB concentration:	0.274
M/B 2 Sigma CSU:	0.326
MB MDC:	0.685
MB Numerical Performance Indicator:	1.65
MB Status vs Numerical Indicator:	Pass
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCS/D (Y or N)?	
	LCS55853	LCS55853
Count Date:	9/9/2020	9/9/2020
Spike I.D.:	20-030	20-030
Decay Corrected Spike Concentration (pCi/mL):	38.472	38.472
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.810	0.812
Target Conc. (pCi/L, g, F):	4.748	4.736
Uncertainty (Calculated):	0.233	0.232
Result (pCi/L, g, F):	4.963	5.603
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	1.118	1.205
Numerical Performance Indicator:	0.37	1.38
Percent Recovery:	104.53%	118.30%
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.:	LCS55853	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.:	LCS55853	
Sample Result (pCi/L, g, F):	4.963	
Sample Result 2 Sigma CSU (pCi/L, g, F):	1.118	
Sample Duplicate Result (pCi/L, g, F):	5.603	
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	1.205	
Are sample and/or duplicate results below RL?	NO	
Duplicate Numerical Performance Indicator:	-0.762	
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	12.36%	
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:

JJ  
9-10-20

CM  
9/10/2020

October 08, 2020

Joju Abraham  
Georgia Power-CCR  
2480 Maner Road  
Atlanta, GA 30339

RE: Project: BRANCH BCD/E BACKGROUND RADS  
Pace Project No.: 92495654

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on September 16, 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: Daniela Herrera, Golder  
Ben Hodges, Georgia Power  
Jimmy Jones, Golder Associates Inc.  
Kristen Jurinko  
Julie Lehrman, Golder Associates Inc.  
Ms. Lauren Petty, Southern Co. Services  
Carolyn Powrozek, Golder  
Dawn Prell, Golder Associates Inc.  
Tim Richards, Golder Associates - Atlanta  
Brian Steele, Golder



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: BRANCH BCD/E BACKGROUND RADS  
Pace Project No.: 92495654

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### **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  
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Iowa Certification #: 391  
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KY WW Permit #: KY0098221  
KY WW Permit #: KY0000221  
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Maine Certification #: 2017020  
Maryland Certification #: 308  
Massachusetts Certification #: M-PA1457  
Michigan/PADEP Certification #: 9991

Missouri Certification #: 235  
Montana Certification #: Cert0082  
Nebraska Certification #: NE-OS-29-14  
Nevada Certification #: PA014572018-1  
New Hampshire/TNI Certification #: 297617  
New Jersey/TNI Certification #: PA051  
New Mexico Certification #: PA01457  
New York/TNI Certification #: 10888  
North Carolina Certification #: 42706  
North Dakota Certification #: R-190  
Ohio EPA Rad Approval: #41249  
Oregon/TNI Certification #: PA200002-010  
Pennsylvania/TNI Certification #: 65-00282  
Puerto Rico Certification #: PA01457  
Rhode Island Certification #: 65-00282  
South Dakota Certification  
Tennessee Certification #: 02867  
Texas/TNI Certification #: T104704188-17-3  
Utah/TNI Certification #: PA014572017-9  
USDA Soil Permit #: P330-17-00091  
Vermont Dept. of Health: ID# VT-0282  
Virgin Island/PADEP Certification  
Virginia/VELAP Certification #: 9526  
Washington Certification #: C868  
West Virginia DEP Certification #: 143  
West Virginia DHHR Certification #: 9964C  
Wisconsin Approve List for Rad  
Wyoming Certification #: 8TMS-L

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## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: BRANCH BCD/E BACKGROUND RADS

Pace Project No.: 92495654

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92495654001	BRGWA-6S	Water	09/15/20 09:45	09/16/20 09:45
92495654002	BRGWA-5S	Water	09/15/20 13:20	09/16/20 09:45
92495654003	BRGWA-5I	Water	09/15/20 14:02	09/16/20 09:45
92495654004	BRGWA-2S	Water	09/15/20 15:01	09/16/20 09:45
92495654005	BRGWA-2I	Water	09/15/20 16:07	09/16/20 09:45

## REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: BRANCH BCD/E BACKGROUND RADS

Pace Project No.: 92495654

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92495654001	BRGWA-6S	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
92495654002	BRGWA-5S	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
92495654003	BRGWA-5I	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
92495654004	BRGWA-2S	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
92495654005	BRGWA-2I	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

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: BRANCH BCD/E BACKGROUND RADS  
Pace Project No.: 92495654

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>92495654001</b>	<b>BRGWA-6S</b>					
EPA 9315	Radium-226	0.00810 ± 0.162 (0.444) C:88% T:NA	pCi/L		09/30/20 07:18	
EPA 9320	Radium-228	0.466 ± 0.418 (0.851) C:71% T:86%	pCi/L		10/05/20 15:06	
Total Radium Calculation	Total Radium	0.474 ± 0.580 (1.30)	pCi/L		10/06/20 14:01	
<b>92495654002</b>	<b>BRGWA-5S</b>					
EPA 9315	Radium-226	0.0906 ± 0.218 (0.520) C:87% T:NA	pCi/L		09/30/20 07:18	
EPA 9320	Radium-228	0.459 ± 0.553 (1.17) C:71% T:84%	pCi/L		10/05/20 17:44	
Total Radium Calculation	Total Radium	0.550 ± 0.771 (1.69)	pCi/L		10/06/20 14:01	
<b>92495654003</b>	<b>BRGWA-5I</b>					
EPA 9315	Radium-226	0.0999 ± 0.226 (0.535) C:87% T:NA	pCi/L		09/30/20 07:18	
EPA 9320	Radium-228	0.115 ± 0.622 (1.42) C:66% T:76%	pCi/L		10/05/20 17:44	
Total Radium Calculation	Total Radium	0.215 ± 0.848 (1.96)	pCi/L		10/06/20 14:01	
<b>92495654004</b>	<b>BRGWA-2S</b>					
EPA 9315	Radium-226	0.109 ± 0.177 (0.389) C:91% T:NA	pCi/L		09/30/20 07:18	
EPA 9320	Radium-228	0.470 ± 0.606 (1.29) C:63% T:77%	pCi/L		10/05/20 17:44	
Total Radium Calculation	Total Radium	0.579 ± 0.783 (1.68)	pCi/L		10/06/20 14:01	

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: BRANCH BCD/E BACKGROUND RADS

Pace Project No.: 92495654

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>92495654005</b>	<b>BRGWA-2I</b>					
EPA 9315	Radium-226	-0.0263 ± 0.159 (0.461) C:94% T:NA	pCi/L		09/30/20 07:18	
EPA 9320	Radium-228	0.0583 ± 0.776 (1.80) C:44% T:84%	pCi/L		10/05/20 17:44	
Total Radium Calculation	Total Radium	0.0583 ± 0.935 (2.26)	pCi/L		10/06/20 14:01	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: BRANCH BCD/E BACKGROUND RADS

Pace Project No.: 92495654

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
<b>Sample: BRGWA-6S</b> <b>Lab ID: 92495654001</b> Collected: 09/15/20 09:45      Received: 09/16/20 09:45      Matrix: Water PWS:      Site ID:      Sample Type:						
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.00810 ± 0.162 (0.444)</b> <b>C:88% T:NA</b>	pCi/L	09/30/20 07:18	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.466 ± 0.418 (0.851)</b> <b>C:71% T:86%</b>	pCi/L	10/05/20 15:06	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.474 ± 0.580 (1.30)</b>	pCi/L	10/06/20 14:01	7440-14-4	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: BRANCH BCD/E BACKGROUND RADS

Pace Project No.: 92495654

**Sample: BRGWA-5S**      **Lab ID: 92495654002**      Collected: 09/15/20 13:20      Received: 09/16/20 09:45      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	<b>0.0906 ± 0.218 (0.520)</b> <b>C:87% T:NA</b>	pCi/L	09/30/20 07:18	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.459 ± 0.553 (1.17)</b> <b>C:71% T:84%</b>	pCi/L	10/05/20 17:44	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.550 ± 0.771 (1.69)</b>	pCi/L	10/06/20 14:01	7440-14-4	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: BRANCH BCD/E BACKGROUND RADS

Pace Project No.: 92495654

Sample: **BRGWA-5I** Lab ID: **92495654003** Collected: 09/15/20 14:02 Received: 09/16/20 09:45 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	<b>0.0999 ± 0.226 (0.535)</b> <b>C:87% T:NA</b>	pCi/L	09/30/20 07:18	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.115 ± 0.622 (1.42)</b> <b>C:66% T:76%</b>	pCi/L	10/05/20 17:44	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.215 ± 0.848 (1.96)</b>	pCi/L	10/06/20 14:01	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: BRANCH BCD/E BACKGROUND RADS

Pace Project No.: 92495654

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
<b>Sample: BRGWA-2S</b> <b>Lab ID: 92495654004</b> Collected: 09/15/20 15:01      Received: 09/16/20 09:45      Matrix: Water PWS:      Site ID:      Sample Type:						
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.109 ± 0.177 (0.389)</b> <b>C:91% T:NA</b>	pCi/L	09/30/20 07:18	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.470 ± 0.606 (1.29)</b> <b>C:63% T:77%</b>	pCi/L	10/05/20 17:44	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.579 ± 0.783 (1.68)</b>	pCi/L	10/06/20 14:01	7440-14-4	

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: BRANCH BCD/E BACKGROUND RADS

Pace Project No.: 92495654

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
<b>Sample: BRGWA-2I</b> <b>Lab ID: 92495654005</b> Collected: 09/15/20 16:07      Received: 09/16/20 09:45      Matrix: Water PWS:      Site ID:      Sample Type:						
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	<b>-0.0263 ± 0.159 (0.461)</b> <b>C:94% T:NA</b>	pCi/L	09/30/20 07:18	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	<b>0.0583 ± 0.776 (1.80)</b> <b>C:44% T:84%</b>	pCi/L	10/05/20 17:44	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	<b>0.0583 ± 0.935 (2.26)</b>	pCi/L	10/06/20 14:01	7440-14-4	

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: BRANCH BCD/E BACKGROUND RADS

Pace Project No.: 92495654

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QC Batch:	415401	Analysis Method:	EPA 9320
QC Batch Method:	EPA 9320	Analysis Description:	9320 Radium 228
		Laboratory:	Pace Analytical Services - Greensburg

Associated Lab Samples: 92495654001, 92495654002, 92495654003, 92495654004, 92495654005

---

METHOD BLANK: 2008969 Matrix: Water

Associated Lab Samples: 92495654001, 92495654002, 92495654003, 92495654004, 92495654005

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.804 ± 0.467 (0.852) C:69% T:78%	pCi/L	10/05/20 15:01	

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

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: BRANCH BCD/E BACKGROUND RADS

Pace Project No.: 92495654

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QC Batch:	415400	Analysis Method:	EPA 9315
QC Batch Method:	EPA 9315	Analysis Description:	9315 Total Radium
		Laboratory:	Pace Analytical Services - Greensburg

Associated Lab Samples: 92495654001, 92495654002, 92495654003, 92495654004, 92495654005

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METHOD BLANK: 2008968 Matrix: Water

Associated Lab Samples: 92495654001, 92495654002, 92495654003, 92495654004, 92495654005

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0938 ± 0.181 (0.415) C:94% T:NA	pCi/L	09/30/20 07:18	

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

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## QUALIFIERS

Project: BRANCH BCD/E BACKGROUND RADS

Pace Project No.: 92495654

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### DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

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.

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: BRANCH BCD/E BACKGROUND RADS

Pace Project No.: 92495654

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92495654001	BRGWA-6S	EPA 9315	415400		
92495654002	BRGWA-5S	EPA 9315	415400		
92495654003	BRGWA-5I	EPA 9315	415400		
92495654004	BRGWA-2S	EPA 9315	415400		
92495654005	BRGWA-2I	EPA 9315	415400		
92495654001	BRGWA-6S	EPA 9320	415401		
92495654002	BRGWA-5S	EPA 9320	415401		
92495654003	BRGWA-5I	EPA 9320	415401		
92495654004	BRGWA-2S	EPA 9320	415401		
92495654005	BRGWA-2I	EPA 9320	415401		
92495654001	BRGWA-6S	Total Radium Calculation	417208		
92495654002	BRGWA-5S	Total Radium Calculation	417208		
92495654003	BRGWA-5I	Total Radium Calculation	417208		
92495654004	BRGWA-2S	Total Radium Calculation	417208		
92495654005	BRGWA-2I	Total Radium Calculation	417208		

### REPORT OF LABORATORY ANALYSIS

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Sample Condition Upon Rec

WO#: 92495654

Client Name: GA Power



92495654

Courier:  Fed Ex  UPS  USPS  Client  Commercial  Pace  Oth

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

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

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

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

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

Cooler Temperature 0.8    Biological Tissue is Frozen: Yes No

Temp should be above freezing to 6°C

Date and Initials of person examining contents: 9/16/2008

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

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

Client Notification/ Resolution:

Field Data Required?    Y / N

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

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

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

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

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



Document Name:  
Bottle Identification Form (BIF)  
Document No.:  
F-CAR-CS-043-Rev.00

Document Issued: March 14, 2019  
Page 1 of 1  
Issuing Authority:  
Pace Carolinas Quality Office

Project #

**WO# : 92495654**

PM: KLH1

Due Date: 09/30/20

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, DRD/8015 (water) DOC, LLHg

• Bottom half of box is to list number of bottle

Matrix	Item#	BP4U-125 mL Plastic Unpreserved (N/A) (C-)	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) (C-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic Zn Acetate & NaOH (>9)	BP4C-125 mL Plastic NaOH (pH > 12) (C-)	WGFLU-Wide-mouthed Glass Jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (C-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (C-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	AG3A(DG3A)-250 mL Amber NH4Cl (N/A)(C-)	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)	AG6U-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

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

LAB USE ONLY- Attix Workorder/Login Label Here or List Pace Workorder Number or MTJL Log-in Number Here

Company: Georgia Power - Coal Combustion Residuals		Billing information	
Address: 2480 Maner Road Atlanta, GA 30339			
Report To: Joey Abraham		Email To: scmvoices@southernco.com	
Copy To: Golder		Site Collection Info/Address: Plant Branch	
Phone: (404) 506-7239 Email: j.abraham@southernco.com		State: Georgia City: Milledgeville Time Zone Collected: [ ] PT [ ] MT [ ] CT [ ] ET	
Phone: (404) 506-7239 Email: j.abraham@southernco.com		Project Name: Plant Branch BCD/E Background Project # CCR 3rd Semi-Annual Pace Profile#	
Collected By (print): Travis Martinez, Andrea McClure		Purchase Order # Quote #	
Collected By (signature):		Face Project Manager: kevin.berring@pacelab.com Immediately Packed on Ice: [X] Yes [ ] No	
Turnaround Date Required: Rush: [ ] Same Day [ ] Next Day [ ] 2 Day [ ] 3 Day [ ] 4 Day [ ] 5 Day (Expedite Charges Apply)		Field Filtered (if applicable): [ ] Yes [ ] No	

**ALL SHADED AREAS are for LAB USE ONLY**

Container Preservative Type **		Lab Project Manager:
1	2	

\*\* Preservative Types (1) nitric acid, (2) sulfuric acid, (3) hydrochloric acid, (4) sodium hydroxide, (5) nitric acetate, (6) methanol, (7) sodium bisulfate, (8) sodium thiosulfate, (9) hexane, (A) ascorbic acid, (B) ammonium sulfate, (C) ammonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other

Analyses				Lab Profile/Line:	
Metals 6010/6020/7470 - see comments	TDS	Chloride/Fluoride/Sulfate	Radium 226.228	Lab Sample Receipt Checklist:	
				Custody Seals Present/Intact Y N NA	
				Custody Signatures Present Y N NA	
				Collector Signatures Present Y N NA	
				Bottles Intact Y N NA	
				Correct Bottles Y N NA	
				Sufficient Volume Y N NA	
				Samples Received on Ice Y N NA	
				VDA - Headspace Acceptable Y N NA	
				USDA Regulated Soils Y N NA	
				Samples in Holding Time Y N NA	
				Residual Chlorine Present Y N NA	
				Cl Strips: _____	
				Sample pH Acceptable Y N NA	
				pH Strips: _____	
				Sulfide Present Y N NA	
				Lead Acetate Strips: _____	

\* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (S), Oil (O), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Water (WT), Other (OT)

Customer Sample ID	Matrix *	Comp / Grab	Collected (or Composite Start)		Composite End		pH	# of Ctrs
			Date	Time	Date	Time		
BRGWA-6S	GW	G	9-15-2020	0945			6.43	5
BRGWA-5S	GW	G	9-15-2020	1320			6.25	5
BRGWA-5E	GW	G	9-15-2020	1402			6.27	5
BRGWA-2S	GW	G	9-15-2020	1501			6.01	5
BRGWA-2I	GW	G	9-15-2020	1607			6.64	5

LAB USE ONLY: Lab Sample # / Comments:	
92495654	

(Metals): As, B, Ba, Be, Ca, Cd, Co, Cr, Mo, Pb, Sb, Se, Li, Ti, Hg		Type of Ice Used: Wet Blue Dry None		SHORT HOLDS PRESENT (<72 hours): Y N N/A		LAB Sample Temperature Info: Temp Blank Received: Y N NA Therm ID#: _____ Cooler 1 Temp Upon Receipt: ___°C Cooler 1 Therm Corr. Factor: ___°C Cooler 1 Corrected Temp: ___°C Comments:	
Packing Material Used:		Radchem sample(s) screened (<500 cpm): Y N NA		Lab Tracking #:		Trip Blank Received: Y N NA HCL MeOH TSP Other	
Relinquished by/Company: (Signature) 		Date/Time: 9-16-2020/0800		Received by/Company: (Signature) 		Date/Time: 9/16/20 0945	
Relinquished by/Company: (Signature)		Date/Time:		Received by/Company: (Signature)		Date/Time:	
Relinquished by/Company: (Signature)		Date/Time:		Received by/Company: (Signature)		Date/Time:	

MTJL LAB USE ONLY	
Table #	
Acctnum:	
Template:	
Prelogin:	
PM:	
PB:	





## Quality Control Sample Performance Assessment

Test: Ra-226  
Analyst: LAL  
Date: 9/29/2020  
Worklist: 56344  
Matrix: DW

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

Method Blank Assessment		
MB Sample ID	2008968	
MB concentration:	0.094	
M/B Counting Uncertainty:	0.180	
MB MDC:	0.415	
MB Numerical Performance Indicator:	1.02	
MB Status vs Numerical Indicator:	N/A	
MB Status vs. MDC:	Pass	

Laboratory Control Sample Assessment	LCSD (Y or N)?	Y
	LCSD56344	LCSD56344
Count Date:	9/30/2020	9/30/2020
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):	0.509	0.505
Target Conc. (pCi/L, g, F):	4.723	4.761
Uncertainty (Calculated):	0.057	0.057
Result (pCi/L, g, F):	3.880	3.912
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.699	0.693
Numerical Performance Indicator:	-2.36	-2.39
Percent Recovery:	82.15%	82.18%
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.:	LCSD56344	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.:	LCSD56344	
Sample Result (pCi/L, g, F):	3.880	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.699	
Sample Duplicate Result (pCi/L, g, F):	3.912	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.693	
Are sample and/or duplicate results below RL?	NO	
Duplicate Numerical Performance Indicator:	-0.065	92495960001
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	0.04%	92495960001DUP
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:

*Muoi/2020*

*uam10/1/2020*



## Quality Control Sample Performance Assessment

Test: Ra-226  
Analyst: LAL  
Date: 9/29/2020  
Worklist: 56344  
Matrix: DW

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

Method Blank Assessment		
MB Sample ID	2008968	
MB concentration:	0.094	
M/B Counting Uncertainty:	0.180	
MB MDC:	0.415	
MB Numerical Performance Indicator:	1.02	
MB Status vs Numerical Indicator:	N/A	
MB Status vs. MDC:	Pass	

Laboratory Control Sample Assessment	LCSD (Y or N)?	N
	LCSD56344	LCSD56344
Count Date:	9/30/2020	
Spike I.D.:	19-033	
Decay Corrected Spike Concentration (pCi/mL):	24.044	
Volume Used (mL):	0.10	
Aliquot Volume (L, g, F):	0.509	
Target Conc. (pCi/L, g, F):	4.723	
Uncertainty (Calculated):	0.057	
Result (pCi/L, g, F):	3.880	
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.699	
Numerical Performance Indicator:	-2.36	
Percent Recovery:	82.15%	
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.:	92495960001	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.:	92495960001DUP	
Sample Result (pCi/L, g, F):	0.399	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.282	
Sample Duplicate Result (pCi/L, g, F):	0.152	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.250	
Are sample and/or duplicate results below RL?	See Below ##	
Duplicate Numerical Performance Indicator:	1.284	92495960001
Duplicate RPD:	89.47%	92495960001DUP
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

UAM 10/1/2020

UAM 10/1/2020

UAM 10/1/2020



## Quality Control Sample Performance Assessment

Test: Ra-228  
Analyst: VAL  
Date: 9/29/2020  
Worklist: 56345  
Matrix: WT

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

Method Blank Assessment		
MB Sample ID	2008969	
MB concentration:	0.804	
M/B 2 Sigma CSU:	0.467	
MB MDC:	0.852	
MB Numerical Performance Indicator:	3.38	
MB Status vs Numerical Indicator:	Fail*	
MB Status vs. MDC:	Pass	

Laboratory Control Sample Assessment	LCSD (Y or N)?	
	LCSD56345	LCSD56345
Count Date:	10/5/2020	10/5/2020
Spike I.D.:	20-030	20-030
Decay Corrected Spike Concentration (pCi/mL):	38.140	38.140
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.819	0.806
Target Conc. (pCi/L, g, F):	4.659	4.732
Uncertainty (Calculated):	0.228	0.232
Result (pCi/L, g, F):	4.491	4.137
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	1.317	1.305
Numerical Performance Indicator:	-0.25	-0.88
Percent Recovery:	96.38%	87.43%
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.:	LCSD56345	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.:	LCSD56345	
Sample Result (pCi/L, g, F):	4.491	
Sample Result 2 Sigma CSU (pCi/L, g, F):	1.317	
Sample Duplicate Result (pCi/L, g, F):	4.137	
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	1.305	
Are sample and/or duplicate results below RL?	NO	
Duplicate Numerical Performance Indicator:	0.373	
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	9.74%	
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:**

\*If the lowest activity sample in this batch is greater than ten times the blank value, the blank is acceptable; otherwise this batch must be re-prepared.

10/6/20

10/16/2020

September 27, 2020

Joju Abraham  
Georgia Power-CCR  
2480 Maner Road  
Atlanta, GA 30339

RE: Project: BRANCH BCD/E BACKGROUND  
Pace Project No.: 92495656

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory on September 16, 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: Daniela Herrera, Golder  
Ben Hodges, Georgia Power  
Jimmy Jones, Golder Associates Inc.  
Kristen Jurinko  
Julie Lehrman, Golder Associates Inc.  
Ms. Lauren Petty, Southern Co. Services  
Carolyn Powrozek, Golder  
Dawn Prell, Golder Associates Inc.  
Tim Richards, Golder Associates - Atlanta  
Brian Steele, Golder



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: BRANCH BCD/E BACKGROUND

Pace Project No.: 92495656

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### **Pace Analytical Services Charlotte**

9800 Kinsey 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

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### **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

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### **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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## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: BRANCH BCD/E BACKGROUND

Pace Project No.: 92495656

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92495656001	BRGWA-6S	Water	09/15/20 09:45	09/16/20 09:45
92495656002	BRGWA-5S	Water	09/15/20 13:20	09/16/20 09:45
92495656003	BRGWA-5I	Water	09/15/20 14:02	09/16/20 09:45
92495656004	BRGWA-2S	Water	09/15/20 15:01	09/16/20 09:45
92495656005	BRGWA-2I	Water	09/15/20 16:07	09/16/20 09:45

## REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: BRANCH BCD/E BACKGROUND  
Pace Project No.: 92495656

Lab ID	Sample ID	Method	Analysts	Analytes Reported
92495656001	BRGWA-6S	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
92495656002	BRGWA-5S	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
92495656003	BRGWA-5I	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
92495656004	BRGWA-2S	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
92495656005	BRGWA-2I	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-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: BRANCH BCD/E BACKGROUND

Pace Project No.: 92495656

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>92495656001</b>	<b>BRGWA-6S</b>					
	pH	6.43	Std. Units		09/22/20 12:29	
EPA 6010D	Calcium	3.7	mg/L	1.0	09/17/20 18:38	
EPA 6020B	Barium	0.013	mg/L	0.010	09/21/20 16:55	
EPA 6020B	Chromium	0.014	mg/L	0.010	09/21/20 16:55	
EPA 6020B	Lithium	0.0027J	mg/L	0.030	09/21/20 16:55	
SM 2450C-2011	Total Dissolved Solids	79.0	mg/L	10.0	09/17/20 15:25	
EPA 300.0 Rev 2.1 1993	Chloride	2.3	mg/L	1.0	09/23/20 23:33	
<b>92495656002</b>	<b>BRGWA-5S</b>					
	pH	6.25	Std. Units		09/22/20 12:29	
EPA 6010D	Calcium	16.8	mg/L	1.0	09/17/20 18:43	
EPA 6020B	Barium	0.038	mg/L	0.010	09/21/20 17:00	
EPA 6020B	Chromium	0.0048J	mg/L	0.010	09/21/20 17:00	
EPA 6020B	Lead	0.000043J	mg/L	0.0050	09/21/20 17:00	
SM 2450C-2011	Total Dissolved Solids	116	mg/L	10.0	09/17/20 15:26	
EPA 300.0 Rev 2.1 1993	Chloride	3.7	mg/L	1.0	09/23/20 23:48	
EPA 300.0 Rev 2.1 1993	Fluoride	0.051J	mg/L	0.10	09/23/20 23:48	
<b>92495656003</b>	<b>BRGWA-5I</b>					
	pH	6.27	Std. Units		09/22/20 12:29	
EPA 6010D	Calcium	12.7	mg/L	1.0	09/17/20 18:47	
EPA 6020B	Barium	0.022	mg/L	0.010	09/21/20 17:06	
EPA 6020B	Chromium	0.0069J	mg/L	0.010	09/21/20 17:06	
EPA 6020B	Cobalt	0.00050J	mg/L	0.0050	09/21/20 17:06	
EPA 6020B	Lead	0.0013J	mg/L	0.0050	09/21/20 17:06	
EPA 6020B	Lithium	0.0010J	mg/L	0.030	09/21/20 17:06	
EPA 6020B	Molybdenum	0.0015J	mg/L	0.010	09/21/20 17:06	
SM 2450C-2011	Total Dissolved Solids	100	mg/L	10.0	09/17/20 15:26	
EPA 300.0 Rev 2.1 1993	Chloride	3.7	mg/L	1.0	09/24/20 00:03	
EPA 300.0 Rev 2.1 1993	Sulfate	1.7	mg/L	1.0	09/24/20 00:03	
<b>92495656004</b>	<b>BRGWA-2S</b>					
	pH	6.01	Std. Units		09/22/20 12:29	
EPA 6010D	Calcium	3.9	mg/L	1.0	09/17/20 19:00	
EPA 6020B	Barium	0.0094J	mg/L	0.010	09/21/20 17:12	
EPA 6020B	Chromium	0.0082J	mg/L	0.010	09/21/20 17:12	
EPA 6020B	Cobalt	0.0010J	mg/L	0.0050	09/21/20 17:12	
SM 2450C-2011	Total Dissolved Solids	69.0	mg/L	10.0	09/17/20 15:26	
EPA 300.0 Rev 2.1 1993	Chloride	1.7	mg/L	1.0	09/24/20 00:48	
<b>92495656005</b>	<b>BRGWA-2I</b>					
	pH	6.64	Std. Units		09/22/20 12:29	
EPA 6010D	Calcium	14.1	mg/L	1.0	09/17/20 19:04	
EPA 6020B	Barium	0.0083J	mg/L	0.010	09/21/20 17:18	
EPA 6020B	Lithium	0.033	mg/L	0.030	09/21/20 17:18	
EPA 6020B	Molybdenum	0.00070J	mg/L	0.010	09/21/20 17:18	
SM 2450C-2011	Total Dissolved Solids	116	mg/L	10.0	09/17/20 15:26	
EPA 300.0 Rev 2.1 1993	Chloride	1.9	mg/L	1.0	09/24/20 07:27	
EPA 300.0 Rev 2.1 1993	Sulfate	5.9	mg/L	1.0	09/24/20 07:27	

### REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: BRANCH BCD/E BACKGROUND  
Pace Project No.: 92495656

Sample: BRGWA-6S		Lab ID: 92495656001		Collected: 09/15/20 09:45		Received: 09/16/20 09:45		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
pH	6.43	Std. Units			1		09/22/20 12:29		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A									
Pace Analytical Services - Peachtree Corners, GA									
Calcium	3.7	mg/L	1.0	0.070	1	09/16/20 15:14	09/17/20 18:38	7440-70-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00028	1	09/16/20 18:16	09/21/20 16:55	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	09/16/20 18:16	09/21/20 16:55	7440-38-2	
Barium	0.013	mg/L	0.010	0.00071	1	09/16/20 18:16	09/21/20 16:55	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000046	1	09/16/20 18:16	09/21/20 16:55	7440-41-7	
Boron	ND	mg/L	0.10	0.0052	1	09/16/20 18:16	09/21/20 16:55	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00012	1	09/16/20 18:16	09/21/20 16:55	7440-43-9	
Chromium	0.014	mg/L	0.010	0.00055	1	09/16/20 18:16	09/21/20 16:55	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00038	1	09/16/20 18:16	09/21/20 16:55	7440-48-4	
Lead	ND	mg/L	0.0050	0.000036	1	09/16/20 18:16	09/21/20 16:55	7439-92-1	
Lithium	0.0027J	mg/L	0.030	0.00081	1	09/16/20 18:16	09/21/20 16:55	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	09/16/20 18:16	09/21/20 16:55	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	09/16/20 18:16	09/21/20 16:55	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	09/16/20 18:16	09/21/20 16:55	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00050	0.000078	1	09/18/20 08:30	09/18/20 12:58	7439-97-6	
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2450C-2011									
Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	79.0	mg/L	10.0	10.0	1		09/17/20 15:25		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Chloride	2.3	mg/L	1.0	0.60	1		09/23/20 23:33	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		09/23/20 23:33	16984-48-8	
Sulfate	ND	mg/L	1.0	0.50	1		09/23/20 23:33	14808-79-8	

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## ANALYTICAL RESULTS

Project: BRANCH BCD/E BACKGROUND

Pace Project No.: 92495656

Sample: BRGWA-5S		Lab ID: 92495656002		Collected: 09/15/20 13:20		Received: 09/16/20 09:45		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
pH	6.25	Std. Units			1		09/22/20 12:29		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A									
Pace Analytical Services - Peachtree Corners, GA									
Calcium	16.8	mg/L	1.0	0.070	1	09/16/20 15:14	09/17/20 18:43	7440-70-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00028	1	09/16/20 18:16	09/21/20 17:00	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	09/16/20 18:16	09/21/20 17:00	7440-38-2	
Barium	0.038	mg/L	0.010	0.00071	1	09/16/20 18:16	09/21/20 17:00	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000046	1	09/16/20 18:16	09/21/20 17:00	7440-41-7	
Boron	ND	mg/L	0.10	0.0052	1	09/16/20 18:16	09/21/20 17:00	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00012	1	09/16/20 18:16	09/21/20 17:00	7440-43-9	
Chromium	0.0048J	mg/L	0.010	0.00055	1	09/16/20 18:16	09/21/20 17:00	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00038	1	09/16/20 18:16	09/21/20 17:00	7440-48-4	
Lead	0.000043J	mg/L	0.0050	0.000036	1	09/16/20 18:16	09/21/20 17:00	7439-92-1	
Lithium	ND	mg/L	0.030	0.00081	1	09/16/20 18:16	09/21/20 17:00	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	09/16/20 18:16	09/21/20 17:00	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	09/16/20 18:16	09/21/20 17:00	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	09/16/20 18:16	09/21/20 17:00	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00050	0.000078	1	09/18/20 08:30	09/18/20 13:07	7439-97-6	
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2450C-2011									
Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	116	mg/L	10.0	10.0	1		09/17/20 15:26		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Chloride	3.7	mg/L	1.0	0.60	1		09/23/20 23:48	16887-00-6	
Fluoride	0.051J	mg/L	0.10	0.050	1		09/23/20 23:48	16984-48-8	
Sulfate	ND	mg/L	1.0	0.50	1		09/23/20 23:48	14808-79-8	

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## ANALYTICAL RESULTS

Project: BRANCH BCD/E BACKGROUND

Pace Project No.: 92495656

Sample: BRGWA-5I		Lab ID: 92495656003		Collected: 09/15/20 14:02		Received: 09/16/20 09:45		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
pH	6.27	Std. Units			1		09/22/20 12:29		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A									
Pace Analytical Services - Peachtree Corners, GA									
Calcium	12.7	mg/L	1.0	0.070	1	09/16/20 15:14	09/17/20 18:47	7440-70-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00028	1	09/16/20 18:16	09/21/20 17:06	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	09/16/20 18:16	09/21/20 17:06	7440-38-2	
Barium	0.022	mg/L	0.010	0.00071	1	09/16/20 18:16	09/21/20 17:06	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000046	1	09/16/20 18:16	09/21/20 17:06	7440-41-7	
Boron	ND	mg/L	0.10	0.0052	1	09/16/20 18:16	09/21/20 17:06	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00012	1	09/16/20 18:16	09/21/20 17:06	7440-43-9	
Chromium	0.0069J	mg/L	0.010	0.00055	1	09/16/20 18:16	09/21/20 17:06	7440-47-3	
Cobalt	0.00050J	mg/L	0.0050	0.00038	1	09/16/20 18:16	09/21/20 17:06	7440-48-4	
Lead	0.0013J	mg/L	0.0050	0.000036	1	09/16/20 18:16	09/21/20 17:06	7439-92-1	
Lithium	0.0010J	mg/L	0.030	0.00081	1	09/16/20 18:16	09/21/20 17:06	7439-93-2	
Molybdenum	0.0015J	mg/L	0.010	0.00069	1	09/16/20 18:16	09/21/20 17:06	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	09/16/20 18:16	09/21/20 17:06	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	09/16/20 18:16	09/21/20 17:06	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00050	0.000078	1	09/18/20 08:30	09/18/20 13:10	7439-97-6	
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2450C-2011									
Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	100	mg/L	10.0	10.0	1		09/17/20 15:26		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Chloride	3.7	mg/L	1.0	0.60	1		09/24/20 00:03	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		09/24/20 00:03	16984-48-8	
Sulfate	1.7	mg/L	1.0	0.50	1		09/24/20 00:03	14808-79-8	

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## ANALYTICAL RESULTS

Project: BRANCH BCD/E BACKGROUND

Pace Project No.: 92495656

Sample: BRGWA-2S		Lab ID: 92495656004		Collected: 09/15/20 15:01		Received: 09/16/20 09:45		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
pH	6.01	Std. Units			1		09/22/20 12:29		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A									
Pace Analytical Services - Peachtree Corners, GA									
Calcium	3.9	mg/L	1.0	0.070	1	09/16/20 15:14	09/17/20 19:00	7440-70-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00028	1	09/16/20 18:16	09/21/20 17:12	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	09/16/20 18:16	09/21/20 17:12	7440-38-2	
Barium	0.0094J	mg/L	0.010	0.00071	1	09/16/20 18:16	09/21/20 17:12	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000046	1	09/16/20 18:16	09/21/20 17:12	7440-41-7	
Boron	ND	mg/L	0.10	0.0052	1	09/16/20 18:16	09/21/20 17:12	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00012	1	09/16/20 18:16	09/21/20 17:12	7440-43-9	
Chromium	0.0082J	mg/L	0.010	0.00055	1	09/16/20 18:16	09/21/20 17:12	7440-47-3	
Cobalt	0.0010J	mg/L	0.0050	0.00038	1	09/16/20 18:16	09/21/20 17:12	7440-48-4	
Lead	ND	mg/L	0.0050	0.000036	1	09/16/20 18:16	09/21/20 17:12	7439-92-1	
Lithium	ND	mg/L	0.030	0.00081	1	09/16/20 18:16	09/21/20 17:12	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	09/16/20 18:16	09/21/20 17:12	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	09/16/20 18:16	09/21/20 17:12	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	09/16/20 18:16	09/21/20 17:12	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00050	0.000078	1	09/18/20 08:30	09/18/20 13:12	7439-97-6	
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2450C-2011									
Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	69.0	mg/L	10.0	10.0	1		09/17/20 15:26		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Chloride	1.7	mg/L	1.0	0.60	1		09/24/20 00:48	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		09/24/20 00:48	16984-48-8	
Sulfate	ND	mg/L	1.0	0.50	1		09/24/20 00:48	14808-79-8	

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## ANALYTICAL RESULTS

Project: BRANCH BCD/E BACKGROUND

Pace Project No.: 92495656

Sample: BRGWA-2I		Lab ID: 92495656005		Collected: 09/15/20 16:07		Received: 09/16/20 09:45		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
pH	6.64	Std. Units			1		09/22/20 12:29		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A									
Pace Analytical Services - Peachtree Corners, GA									
Calcium	14.1	mg/L	1.0	0.070	1	09/16/20 15:14	09/17/20 19:04	7440-70-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00028	1	09/16/20 18:16	09/21/20 17:18	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	09/16/20 18:16	09/21/20 17:18	7440-38-2	
Barium	0.0083J	mg/L	0.010	0.00071	1	09/16/20 18:16	09/21/20 17:18	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000046	1	09/16/20 18:16	09/21/20 17:18	7440-41-7	
Boron	ND	mg/L	0.10	0.0052	1	09/16/20 18:16	09/21/20 17:18	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00012	1	09/16/20 18:16	09/21/20 17:18	7440-43-9	
Chromium	ND	mg/L	0.010	0.00055	1	09/16/20 18:16	09/21/20 17:18	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00038	1	09/16/20 18:16	09/21/20 17:18	7440-48-4	
Lead	ND	mg/L	0.0050	0.000036	1	09/16/20 18:16	09/21/20 17:18	7439-92-1	
Lithium	0.033	mg/L	0.030	0.00081	1	09/16/20 18:16	09/21/20 17:18	7439-93-2	
Molybdenum	0.00070J	mg/L	0.010	0.00069	1	09/16/20 18:16	09/21/20 17:18	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	09/16/20 18:16	09/21/20 17:18	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	09/16/20 18:16	09/21/20 17:18	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00050	0.000078	1	09/18/20 08:30	09/18/20 13:14	7439-97-6	
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2450C-2011									
Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	116	mg/L	10.0	10.0	1		09/17/20 15:26		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Chloride	1.9	mg/L	1.0	0.60	1		09/24/20 07:27	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		09/24/20 07:27	16984-48-8	
Sulfate	5.9	mg/L	1.0	0.50	1		09/24/20 07:27	14808-79-8	

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### QUALITY CONTROL DATA

Project: BRANCH BCD/E BACKGROUND

Pace Project No.: 92495656

QC Batch:	566871	Analysis Method:	EPA 6010D
QC Batch Method:	EPA 3010A	Analysis Description:	6010D ATL
		Laboratory:	Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92495656001, 92495656002, 92495656003, 92495656004, 92495656005

METHOD BLANK: 3003868 Matrix: Water  
Associated Lab Samples: 92495656001, 92495656002, 92495656003, 92495656004, 92495656005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.070	09/17/20 17:42	

LABORATORY CONTROL SAMPLE: 3003869

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

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3003870 3003871

Parameter	Units	3003870		3003871		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92495653001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result						
Calcium	mg/L	5.7	1	1	6.6	6.6	89	87	75-125	0	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: BRANCH BCD/E BACKGROUND

Pace Project No.: 92495656

QC Batch: 566966 Analysis Method: EPA 6020B  
QC Batch Method: EPA 3005A Analysis Description: 6020 MET  
Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92495656001, 92495656002, 92495656003, 92495656004, 92495656005

METHOD BLANK: 3004543 Matrix: Water

Associated Lab Samples: 92495656001, 92495656002, 92495656003, 92495656004, 92495656005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00028	09/21/20 15:26	
Arsenic	mg/L	ND	0.0050	0.00078	09/21/20 15:26	
Barium	mg/L	ND	0.010	0.00071	09/21/20 15:26	
Beryllium	mg/L	ND	0.0030	0.000046	09/21/20 15:26	
Boron	mg/L	ND	0.10	0.0052	09/21/20 15:26	
Cadmium	mg/L	ND	0.0025	0.00012	09/21/20 15:26	
Chromium	mg/L	ND	0.010	0.00055	09/21/20 15:26	
Cobalt	mg/L	ND	0.0050	0.00038	09/21/20 15:26	
Lead	mg/L	ND	0.0050	0.000036	09/21/20 15:26	
Lithium	mg/L	ND	0.030	0.00081	09/21/20 15:26	
Molybdenum	mg/L	ND	0.010	0.00069	09/21/20 15:26	
Selenium	mg/L	ND	0.010	0.0016	09/21/20 15:26	
Thallium	mg/L	ND	0.0010	0.00014	09/21/20 15:26	

LABORATORY CONTROL SAMPLE: 3004544

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.099	99	80-120	
Arsenic	mg/L	0.1	0.099	99	80-120	
Barium	mg/L	0.1	0.099	99	80-120	
Beryllium	mg/L	0.1	0.10	105	80-120	
Boron	mg/L	1	1.1	109	80-120	
Cadmium	mg/L	0.1	0.099	99	80-120	
Chromium	mg/L	0.1	0.10	105	80-120	
Cobalt	mg/L	0.1	0.10	101	80-120	
Lead	mg/L	0.1	0.099	99	80-120	
Lithium	mg/L	0.1	0.11	107	80-120	
Molybdenum	mg/L	0.1	0.099	99	80-120	
Selenium	mg/L	0.1	0.098	98	80-120	
Thallium	mg/L	0.1	0.097	97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3004545 3004546

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92495653001	Result	Spike Conc.	Spike Conc.								
Antimony	mg/L	ND	0.1	0.1	0.10	0.097	100	97	75-125	2	20		
Arsenic	mg/L	ND	0.1	0.1	0.10	0.096	101	96	75-125	5	20		

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: BRANCH BCD/E BACKGROUND

Pace Project No.: 92495656

Parameter	Units	3004545		3004546		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92495653001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result								
Barium	mg/L	0.058	0.1	0.1	0.16	0.15	99	95	75-125	2	20		
Beryllium	mg/L	ND	0.1	0.1	0.10	0.096	102	96	75-125	6	20		
Boron	mg/L	ND	1	1	1.0	0.98	103	97	75-125	5	20		
Cadmium	mg/L	ND	0.1	0.1	0.10	0.096	100	96	75-125	4	20		
Chromium	mg/L	0.0025J	0.1	0.1	0.11	0.099	103	96	75-125	7	20		
Cobalt	mg/L	ND	0.1	0.1	0.10	0.097	100	97	75-125	2	20		
Lead	mg/L	ND	0.1	0.1	0.099	0.096	99	96	75-125	3	20		
Lithium	mg/L	ND	0.1	0.1	0.10	0.10	104	100	75-125	4	20		
Molybdenum	mg/L	ND	0.1	0.1	0.10	0.097	100	97	75-125	3	20		
Selenium	mg/L	ND	0.1	0.1	0.098	0.10	98	99	75-125	1	20		
Thallium	mg/L	ND	0.1	0.1	0.097	0.094	97	94	75-125	4	20		

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: BRANCH BCD/E BACKGROUND

Pace Project No.: 92495656

QC Batch:	567255	Analysis Method:	EPA 7470A
QC Batch Method:	EPA 7470A	Analysis Description:	7470 Mercury
		Laboratory:	Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92495656001, 92495656002, 92495656003, 92495656004, 92495656005

METHOD BLANK: 3006139 Matrix: Water

Associated Lab Samples: 92495656001, 92495656002, 92495656003, 92495656004, 92495656005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00050	0.000078	09/18/20 12:53	

LABORATORY CONTROL SAMPLE: 3006140

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.0025	0.0026	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3006141 3006142

Parameter	Units	3006141		3006142		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92495656001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result						
Mercury	mg/L	ND	0.0025	0.0025	0.0026	0.0025	102	100	75-125	2	20

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: BRANCH BCD/E BACKGROUND  
Pace Project No.: 92495656

QC Batch: 567139 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: 92495656001, 92495656002, 92495656003, 92495656004, 92495656005

METHOD BLANK: 3005336 Matrix: Water  
Associated Lab Samples: 92495656001, 92495656002, 92495656003, 92495656004, 92495656005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	09/17/20 15:22	

LABORATORY CONTROL SAMPLE: 3005337

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	420	105	84-108	

SAMPLE DUPLICATE: 3005338

Parameter	Units	92494171032 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	146	142	3	10	

SAMPLE DUPLICATE: 3005339

Parameter	Units	92495656003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	100	95.0	5	10	

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: BRANCH BCD/E BACKGROUND  
Pace Project No.: 92495656

QC Batch: 568234 Analysis Method: EPA 300.0 Rev 2.1 1993  
QC Batch Method: EPA 300.0 Rev 2.1 1993 Analysis Description: 300.0 IC Anions  
Laboratory: Pace Analytical Services - Asheville

Associated Lab Samples: 92495656001, 92495656002, 92495656003, 92495656004

METHOD BLANK: 3010905 Matrix: Water  
Associated Lab Samples: 92495656001, 92495656002, 92495656003, 92495656004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	09/23/20 17:04	
Fluoride	mg/L	ND	0.10	0.050	09/23/20 17:04	
Sulfate	mg/L	ND	1.0	0.50	09/23/20 17:04	

LABORATORY CONTROL SAMPLE: 3010906

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	53.0	106	90-110	
Fluoride	mg/L	2.5	2.7	109	90-110	
Sulfate	mg/L	50	53.2	106	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3010909 3010910

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92496730002	Result	Spike Conc.	Spike Conc.								
Chloride	mg/L	264	50	50	389	389	249	249	90-110	0	10		
Fluoride	mg/L	0.60	2.5	2.5	3.3	3.4	110	110	90-110	1	10		
Sulfate	mg/L	3.0	50	50	57.3	57.3	109	109	90-110	0	10		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3011115 3011116

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92496730004	Result	Spike Conc.	Spike Conc.								
Chloride	mg/L	109	50	50	158	158	97	97	90-110	0	10		
Fluoride	mg/L	0.43	2.5	2.5	3.1	3.2	108	109	90-110	1	10		
Sulfate	mg/L	79.4	50	50	120	120	81	81	90-110	0	10 M1		

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### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: BRANCH BCD/E BACKGROUND  
Pace Project No.: 92495656

QC Batch: 568377 Analysis Method: EPA 300.0 Rev 2.1 1993  
QC Batch Method: EPA 300.0 Rev 2.1 1993 Analysis Description: 300.0 IC Anions  
Laboratory: Pace Analytical Services - Asheville

Associated Lab Samples: 92495656005

METHOD BLANK: 3011350 Matrix: Water  
Associated Lab Samples: 92495656005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	09/24/20 06:58	
Fluoride	mg/L	ND	0.10	0.050	09/24/20 06:58	
Sulfate	mg/L	ND	1.0	0.50	09/24/20 06:58	

LABORATORY CONTROL SAMPLE: 3011351

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	50.7	101	90-110	
Fluoride	mg/L	2.5	2.6	102	90-110	
Sulfate	mg/L	50	50.1	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3011352 3011353

Parameter	Units	92495656005		3011352		3011353		% Rec Limits	RPD	Max RPD	Qual
		MS Result	MSD Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result				
Chloride	mg/L	1.9	50	50	55.8	56.2	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	5.9	50	50	59.3	59.6	107	108	90-110	1	10

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3011354 3011355

Parameter	Units	92496524001		3011354		3011355		% Rec Limits	RPD	Max RPD	Qual
		MS Result	MSD Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result				
Chloride	mg/L	2.6	50	50	56.8	57.6	108	110	90-110	1	10
Fluoride	mg/L	ND	2.5	2.5	2.7	2.8	108	110	90-110	2	10
Sulfate	mg/L	1.0	50	50	54.0	54.8	106	108	90-110	1	10

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### REPORT OF LABORATORY ANALYSIS

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## QUALIFIERS

Project: BRANCH BCD/E BACKGROUND

Pace Project No.: 92495656

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### DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

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.

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: BRANCH BCD/E BACKGROUND  
Pace Project No.: 92495656

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92495656001	BRGWA-6S				
92495656002	BRGWA-5S				
92495656003	BRGWA-5I				
92495656004	BRGWA-2S				
92495656005	BRGWA-2I				
92495656001	BRGWA-6S	EPA 3010A	566871	EPA 6010D	566908
92495656002	BRGWA-5S	EPA 3010A	566871	EPA 6010D	566908
92495656003	BRGWA-5I	EPA 3010A	566871	EPA 6010D	566908
92495656004	BRGWA-2S	EPA 3010A	566871	EPA 6010D	566908
92495656005	BRGWA-2I	EPA 3010A	566871	EPA 6010D	566908
92495656001	BRGWA-6S	EPA 3005A	566966	EPA 6020B	566971
92495656002	BRGWA-5S	EPA 3005A	566966	EPA 6020B	566971
92495656003	BRGWA-5I	EPA 3005A	566966	EPA 6020B	566971
92495656004	BRGWA-2S	EPA 3005A	566966	EPA 6020B	566971
92495656005	BRGWA-2I	EPA 3005A	566966	EPA 6020B	566971
92495656001	BRGWA-6S	EPA 7470A	567255	EPA 7470A	567454
92495656002	BRGWA-5S	EPA 7470A	567255	EPA 7470A	567454
92495656003	BRGWA-5I	EPA 7470A	567255	EPA 7470A	567454
92495656004	BRGWA-2S	EPA 7470A	567255	EPA 7470A	567454
92495656005	BRGWA-2I	EPA 7470A	567255	EPA 7470A	567454
92495656001	BRGWA-6S	SM 2450C-2011	567139		
92495656002	BRGWA-5S	SM 2450C-2011	567139		
92495656003	BRGWA-5I	SM 2450C-2011	567139		
92495656004	BRGWA-2S	SM 2450C-2011	567139		
92495656005	BRGWA-2I	SM 2450C-2011	567139		
92495656001	BRGWA-6S	EPA 300.0 Rev 2.1 1993	568234		
92495656002	BRGWA-5S	EPA 300.0 Rev 2.1 1993	568234		
92495656003	BRGWA-5I	EPA 300.0 Rev 2.1 1993	568234		
92495656004	BRGWA-2S	EPA 300.0 Rev 2.1 1993	568234		
92495656005	BRGWA-2I	EPA 300.0 Rev 2.1 1993	568377		

### REPORT OF LABORATORY ANALYSIS

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Sample Condition Upon Receipt

WO#: 92495656

Client Name: GA Power



92495656

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

Cooler Temperature 0.8 Biological Tissue is Frozen: Yes No  
Temp should be above freezing to 6°C

Date and Initials of person examining contents: 9/16/2004

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

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

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

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

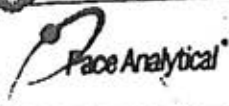
\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

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

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



Document Name:  
Bottle Identification Form (BIF)  
Document No.:  
F-CAR-CS-043-Rev.00

Document issued: March 14, 2019  
Page 1 of 1  
Issuing Authority:  
Pace Carolinas Quality Office

Project #

**WO# : 92495656**

PM: KLH1 Due Date: 09/30/20  
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/BO15 (water) DOC, LLHg

Bottom half of box is to list number of bottle

Matrix	Item#	BP4U-125 mL Plastic Unpreserved (N/A) (C-)	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) (C-)	BP3H-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic ZN Acetate & NaOH (>9)	BP4C-125 mL Plastic NaOH (pH > 12) (C-)	WGFU-Wide-mouthed Glass jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (C-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (C-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	AG3A(DG3A)-250 mL Amber NH4Cl (N/A)(C-)	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/GX (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)	BP9A-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG6U-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

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

LAB USE ONLY- Attach Workorder/Login Label Here or List Pace Workorder Number or MTJL Log-In Number Here

Company: Georgia Power - Coal Combustion Residuals		Billing Information	
Address: 2480 Manner Road Atlanta, GA 30339			
Report To: Joju Abraham		Email To: scsvoices@southernco.com	
Copy To: Golder		Site Collection Info/Address: Plant Branch	
Phone: (404) 506-7239		State: Georgia City: Milledgeville Time Zone: Collected	
Email: j.abraham@southernco.com		[ ] PT [ ] MT [ ] CT [ ] X CT	
Phone: (404) 506-7239	Project Name: Plant Branch BCD/E Background	Pace Profile#	
Email: j.abraham@southernco.com	Project # CCR 3rd Semi-Annual		
Collected By (print): Travis Martinez, Andrea McClure	Purchase Order #	Pace Project Manager: kevin.herring@pacelab.com	
Collected By (signature): <i>[Signature]</i>	Quote #	Immediately Packed on Ice [X] Yes [ ] No	
	Turnaround Date Required	Field Filtered (if applicable) [ ] Yes [ ] No	
	Rush: [ ] Same Day [ ] Next Day [ ] 2 Day [ ] 3 Day [ ] 4 Day [ ] 5 Day (Expedite Charges Apply)	Analysis: _____	

**ALL SHADED AREAS are for LAB USE ONLY**

Container Preservative Type **										Lab Project Manager:	
1											

\*\* Preservative Types (1) nitric acid, (2) sulfuric acid, (3) hydrochloric acid, (4) sodium hydroxide, (5) nitric acetate, (6) methanol, (7) sodium bisulfate, (8) sodium thiosulfate, (9) hexane, (A) ascorbic acid, (B) ammonium sulfate, (C) ammonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other

Analyses										Lab Profile/Line:			
Metals 6010/6020/7470 - see comments	TOS	Chloride/Fluoride/Sulfate	Radium 226-228									Lab Sample Receipt Checklist:	
												Custody Seals Present/Intact Y N NA	
												Custody Signatures Present Y N NA	
												Collector Signature Present Y N NA	
												Bottles Intact Y N NA	
								Correct Bottles Y N NA					
								Sufficient Volume Y N NA					
								Samples Received on Ice Y N NA					
								VDA - Headspace Acceptable Y N NA					
								USDA Regulated Soils Y N NA					
								Samples in Holding Time Y N NA					
								Residual Chlorine Present Y N NA					
								Cl Strips: _____					
								Sample pH Acceptable Y N NA					
								pH Strips: _____					
								Sulfide Present Y N NA					
								Lead Acetate Strips: _____					

\* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (S), Oil (O), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Water (WT), Other (OT)

Customer Sample ID	Matrix *	Comp / Grab	Collected (or Composite Start)		Composite End		pH	# of Ctns
			Date	Time	Date	Time		
BRGWA-6S	GW	G	9-15-2020	0945			6.43	5
BRGWA-5S	GW	G	9-15-2020	1320			6.25	5
BRGWA-5I	GW	G	9-15-2020	1402			6.27	5
BRGWA-2S	GW	G	9-15-2020	1501			6.01	5
BRGWA-2I	GW	G	9-15-2020	1607			6.64	5

LAB USE ONLY: Lab Sample # / Comments: <i>92495656</i>	
--	--

(Metals): As, B, Ba, Be, Ca, Cd, Co, Cr, Mo, Pb, Sb, Se, Li, Tl, Hg	Type of Ice Used: Wet Blue Dry None	SHORT HOLDS PRESENT (<72 hours): Y N N/A	LAB Sample Temperature Info: Temp Blank Received: Y N NA
	Packing Material Used:	Lab Tracking #:	Therm ID#:
	Radchem sample(s) screened (<500 cpm): Y N NA	Samples received via: FEDEX UPS Client Courier Pace Courier	Cooler 1 Temp Upon Receipt: __°C Cooler 1 Therm Corr. Factor: __°C Cooler 1 Corrected Temp: __°C

Relinquished by/Company: (Signature) <i>[Signature]</i>	Date/Time: 9-16-2020/0800	Received by/Company: (Signature) <i>[Signature]</i>	Date/Time: 9/16/20 0945	MTJL LAB USE ONLY Table #:	Trip Blank Received: Y N NA HCL MeOH TSP Other
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Account: Template: Prelogin:	Non Conformance(s): YES / NO
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	PM: PB:	Page: 1 of: 1

October 12, 2020

Joju Abraham  
Georgia Power-CCR  
2480 Maner Road  
Atlanta, GA 30339

RE: Project: BRANCH E NETWORK RADS  
Pace Project No.: 92495960

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory between September 17, 2020 and September 18, 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: Daniela Herrera, Golder  
Ben Hodges, Georgia Power  
Jimmy Jones, Golder Associates Inc.  
Kristen Jurinko  
Julie Lehrman, Golder Associates Inc.  
Ms. Lauren Petty, Southern Co. Services  
Carolyn Powrozek, Golder  
Dawn Prell, Golder Associates Inc.  
Tim Richards, Golder Associates - Atlanta  
Brian Steele, Golder



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: BRANCH E NETWORK RADS  
Pace Project No.: 92495960

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### **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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## REPORT OF LABORATORY ANALYSIS

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### SAMPLE SUMMARY

Project: BRANCH E NETWORK RADS  
Pace Project No.: 92495960

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92495960001	BRGWC-35S	Water	09/16/20 09:05	09/17/20 10:00
92495960002	BRGWC-34S	Water	09/16/20 09:59	09/17/20 10:00
92495960003	BRGWC-33S	Water	09/16/20 11:02	09/17/20 10:00
92495960004	BRGWC-17S	Water	09/16/20 12:30	09/17/20 10:00
92495960005	BRGWC-36S	Water	09/16/20 15:21	09/17/20 10:00
92495960006	BRGWC-37S	Water	09/16/20 16:09	09/17/20 10:00
92495960007	FB-1	Water	09/16/20 10:10	09/17/20 10:00
92495960008	DUP-2	Water	09/16/20 00:00	09/17/20 10:00
92495960009	BRGWC-38S	Water	09/17/20 11:26	09/18/20 10:15

### REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: BRANCH E NETWORK RADS  
Pace Project No.: 92495960

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92495960001	BRGWC-35S	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92495960002	BRGWC-34S	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92495960003	BRGWC-33S	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92495960004	BRGWC-17S	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92495960005	BRGWC-36S	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92495960006	BRGWC-37S	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92495960007	FB-1	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92495960008	DUP-2	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	JAL	1	PASI-PA
92495960009	BRGWC-38S	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

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: BRANCH E NETWORK RADS  
Pace Project No.: 92495960

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>92495960001</b>	<b>BRGWC-35S</b>					
EPA 9315	Radium-226	0.399 ± 0.288 (0.465) C:82% T:NA	pCi/L		09/30/20 09:01	
EPA 9320	Radium-228	0.846 ± 0.848 (1.77) C:66% T:85%	pCi/L		10/05/20 18:33	
Total Radium Calculation	Total Radium	1.25 ± 1.14 (2.24)	pCi/L		10/07/20 15:56	
<b>92495960002</b>	<b>BRGWC-34S</b>					
EPA 9315	Radium-226	0.156 ± 0.212 (0.446) C:86% T:NA	pCi/L		09/30/20 08:22	
EPA 9320	Radium-228	0.564 ± 0.797 (1.71) C:67% T:80%	pCi/L		10/05/20 18:33	
Total Radium Calculation	Total Radium	0.720 ± 1.01 (2.16)	pCi/L		10/07/20 15:56	
<b>92495960003</b>	<b>BRGWC-33S</b>					
EPA 9315	Radium-226	0.0620 ± 0.200 (0.495) C:86% T:NA	pCi/L		09/30/20 08:29	
EPA 9320	Radium-228	0.133 ± 0.499 (1.13) C:62% T:72%	pCi/L		10/06/20 11:51	
Total Radium Calculation	Total Radium	0.195 ± 0.699 (1.63)	pCi/L		10/07/20 15:56	
<b>92495960004</b>	<b>BRGWC-17S</b>					
EPA 9315	Radium-226	-0.0553 ± 0.184 (0.552) C:80% T:NA	pCi/L		09/30/20 08:30	
EPA 9320	Radium-228	0.478 ± 0.453 (0.929) C:62% T:83%	pCi/L		10/06/20 11:51	
Total Radium Calculation	Total Radium	0.478 ± 0.637 (1.48)	pCi/L		10/07/20 15:56	

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### SUMMARY OF DETECTION

Project: BRANCH E NETWORK RADS  
 Pace Project No.: 92495960

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>92495960005</b>	<b>BRGWC-36S</b>					
EPA 9315	Radium-226	0.239 ± 0.229 (0.425) C:87% T:NA	pCi/L		09/30/20 08:31	
EPA 9320	Radium-228	0.926 ± 0.502 (0.904) C:64% T:81%	pCi/L		10/06/20 11:51	
Total Radium Calculation	Total Radium	1.17 ± 0.731 (1.33)	pCi/L		10/07/20 15:56	
<b>92495960006</b>	<b>BRGWC-37S</b>					
EPA 9315	Radium-226	0.276 ± 0.291 (0.588) C:83% T:NA	pCi/L		09/30/20 08:32	
EPA 9320	Radium-228	0.568 ± 0.492 (1.00) C:67% T:79%	pCi/L		10/06/20 11:51	
Total Radium Calculation	Total Radium	0.844 ± 0.783 (1.59)	pCi/L		10/07/20 15:56	
<b>92495960007</b>	<b>FB-1</b>					
EPA 9315	Radium-226	0.116 ± 0.208 (0.473) C:95% T:NA	pCi/L		09/30/20 08:24	
EPA 9320	Radium-228	0.0575 ± 0.419 (0.957) C:65% T:84%	pCi/L		10/06/20 11:51	
Total Radium Calculation	Total Radium	0.174 ± 0.627 (1.43)	pCi/L		10/07/20 15:56	
<b>92495960008</b>	<b>DUP-2</b>					
EPA 9315	Radium-226	0.283 ± 0.239 (0.426) C:88% T:NA	pCi/L		09/30/20 08:33	
EPA 9320	Radium-228	0.907 ± 0.502 (0.922) C:65% T:84%	pCi/L		10/06/20 11:52	
Total Radium Calculation	Total Radium	1.19 ± 0.741 (1.35)	pCi/L		10/07/20 15:56	

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### SUMMARY OF DETECTION

Project: BRANCH E NETWORK RADS

Pace Project No.: 92495960

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>92495960009</b>	<b>BRGWC-38S</b>					
EPA 9315	Radium-226	0.852 ± 0.369 (0.409)	pCi/L		09/30/20 08:25	
EPA 9320	Radium-228	C:91% T:NA 2.07 ± 0.730 (1.08)	pCi/L		10/06/20 11:52	
Total Radium Calculation	Total Radium	C:63% T:74% 2.92 ± 1.10 (1.49)	pCi/L		10/07/20 15:56	

### REPORT OF LABORATORY ANALYSIS

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: BRANCH E NETWORK RADS

Pace Project No.: 92495960

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
<b>Sample: BRGWC-35S</b> <b>Lab ID: 92495960001</b> Collected: 09/16/20 09:05      Received: 09/17/20 10:00      Matrix: Water PWS:      Site ID:      Sample Type:						
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.399 ± 0.288 (0.465)</b> <b>C:82% T:NA</b>	pCi/L	09/30/20 09:01	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.846 ± 0.848 (1.77)</b> <b>C:66% T:85%</b>	pCi/L	10/05/20 18:33	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>1.25 ± 1.14 (2.24)</b>	pCi/L	10/07/20 15:56	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: BRANCH E NETWORK RADS

Pace Project No.: 92495960

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
<b>Sample: BRGWC-34S</b> <b>Lab ID: 92495960002</b> Collected: 09/16/20 09:59      Received: 09/17/20 10:00      Matrix: Water PWS:      Site ID:      Sample Type:						
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.156 ± 0.212 (0.446)</b> <b>C:86% T:NA</b>	pCi/L	09/30/20 08:22	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.564 ± 0.797 (1.71)</b> <b>C:67% T:80%</b>	pCi/L	10/05/20 18:33	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.720 ± 1.01 (2.16)</b>	pCi/L	10/07/20 15:56	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: BRANCH E NETWORK RADS

Pace Project No.: 92495960

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
<b>Sample: BRGWC-33S</b> <b>Lab ID: 92495960003</b> Collected: 09/16/20 11:02      Received: 09/17/20 10:00      Matrix: Water PWS:      Site ID:      Sample Type:						
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.0620 ± 0.200 (0.495)</b> <b>C:86% T:NA</b>	pCi/L	09/30/20 08:29	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.133 ± 0.499 (1.13)</b> <b>C:62% T:72%</b>	pCi/L	10/06/20 11:51	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.195 ± 0.699 (1.63)</b>	pCi/L	10/07/20 15:56	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: BRANCH E NETWORK RADS

Pace Project No.: 92495960

**Sample: BRGWC-17S**      **Lab ID: 92495960004**      Collected: 09/16/20 12:30      Received: 09/17/20 10:00      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	<b>-0.0553 ± 0.184 (0.552)</b> <b>C:80% T:NA</b>	pCi/L	09/30/20 08:30	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.478 ± 0.453 (0.929)</b> <b>C:62% T:83%</b>	pCi/L	10/06/20 11:51	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.478 ± 0.637 (1.48)</b>	pCi/L	10/07/20 15:56	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: BRANCH E NETWORK RADS

Pace Project No.: 92495960

Sample: **BRGWC-36S** Lab ID: **92495960005** Collected: 09/16/20 15:21 Received: 09/17/20 10:00 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	<b>0.239 ± 0.229 (0.425)</b> <b>C:87% T:NA</b>	pCi/L	09/30/20 08:31	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.926 ± 0.502 (0.904)</b> <b>C:64% T:81%</b>	pCi/L	10/06/20 11:51	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>1.17 ± 0.731 (1.33)</b>	pCi/L	10/07/20 15:56	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: BRANCH E NETWORK RADS

Pace Project No.: 92495960

**Sample: BRGWC-37S**      **Lab ID: 92495960006**      Collected: 09/16/20 16:09      Received: 09/17/20 10:00      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	<b>0.276 ± 0.291 (0.588)</b> <b>C:83% T:NA</b>	pCi/L	09/30/20 08:32	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.568 ± 0.492 (1.00)</b> <b>C:67% T:79%</b>	pCi/L	10/06/20 11:51	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.844 ± 0.783 (1.59)</b>	pCi/L	10/07/20 15:56	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: BRANCH E NETWORK RADS

Pace Project No.: 92495960

Sample: **FB-1** Lab ID: **92495960007** Collected: 09/16/20 10:10 Received: 09/17/20 10:00 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	<b>0.116 ± 0.208 (0.473)</b> <b>C:95% T:NA</b>	pCi/L	09/30/20 08:24	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.0575 ± 0.419 (0.957)</b> <b>C:65% T:84%</b>	pCi/L	10/06/20 11:51	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>0.174 ± 0.627 (1.43)</b>	pCi/L	10/07/20 15:56	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: BRANCH E NETWORK RADS

Pace Project No.: 92495960

**Sample: DUP-2**      **Lab ID: 92495960008**      Collected: 09/16/20 00:00      Received: 09/17/20 10:00      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	<b>0.283 ± 0.239 (0.426)</b> <b>C:88% T:NA</b>	pCi/L	09/30/20 08:33	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>0.907 ± 0.502 (0.922)</b> <b>C:65% T:84%</b>	pCi/L	10/06/20 11:52	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>1.19 ± 0.741 (1.35)</b>	pCi/L	10/07/20 15:56	7440-14-4	

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### ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: BRANCH E NETWORK RADS

Pace Project No.: 92495960

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
<b>Sample: BRGWC-38S</b> <b>Lab ID: 92495960009</b> Collected: 09/17/20 11:26      Received: 09/18/20 10:15      Matrix: Water PWS:      Site ID:      Sample Type:						
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	<b>0.852 ± 0.369 (0.409)</b> <b>C:91% T:NA</b>	pCi/L	09/30/20 08:25	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	<b>2.07 ± 0.730 (1.08)</b> <b>C:63% T:74%</b>	pCi/L	10/06/20 11:52	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	<b>2.92 ± 1.10 (1.49)</b>	pCi/L	10/07/20 15:56	7440-14-4	

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: BRANCH E NETWORK RADS

Pace Project No.: 92495960

QC Batch: 415401

Analysis Method: EPA 9320

QC Batch Method: EPA 9320

Analysis Description: 9320 Radium 228

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 92495960001, 92495960002

METHOD BLANK: 2008969

Matrix: Water

Associated Lab Samples: 92495960001, 92495960002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.804 ± 0.467 (0.852) C:69% T:78%	pCi/L	10/05/20 15:01	

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

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL - RADIOCHEMISTRY

Project: BRANCH E NETWORK RADS

Pace Project No.: 92495960

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QC Batch:	415402	Analysis Method:	EPA 9315
QC Batch Method:	EPA 9315	Analysis Description:	9315 Total Radium
		Laboratory:	Pace Analytical Services - Greensburg

Associated Lab Samples: 92495960003, 92495960004, 92495960005, 92495960006, 92495960007, 92495960008, 92495960009

---

METHOD BLANK: 2008971 Matrix: Water

Associated Lab Samples: 92495960003, 92495960004, 92495960005, 92495960006, 92495960007, 92495960008, 92495960009

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	-0.0214 ± 0.170 (0.482) C:94% T:NA	pCi/L	09/30/20 08:23	

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: BRANCH E NETWORK RADS

Pace Project No.: 92495960

QC Batch: 415400

Analysis Method: EPA 9315

QC Batch Method: EPA 9315

Analysis Description: 9315 Total Radium

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 92495960001, 92495960002

METHOD BLANK: 2008968

Matrix: Water

Associated Lab Samples: 92495960001, 92495960002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0938 ± 0.181 (0.415) C:94% T:NA	pCi/L	09/30/20 07:18	

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: BRANCH E NETWORK RADS  
Pace Project No.: 92495960

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QC Batch:	415403	Analysis Method:	EPA 9320
QC Batch Method:	EPA 9320	Analysis Description:	9320 Radium 228
		Laboratory:	Pace Analytical Services - Greensburg

Associated Lab Samples: 92495960003, 92495960004, 92495960005, 92495960006, 92495960007, 92495960008, 92495960009

---

METHOD BLANK: 2008973 Matrix: Water

Associated Lab Samples: 92495960003, 92495960004, 92495960005, 92495960006, 92495960007, 92495960008, 92495960009

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.789 ± 0.460 (0.832) C:67% T:72%	pCi/L	10/06/20 11:47	

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

### REPORT OF LABORATORY ANALYSIS

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## QUALIFIERS

Project: BRANCH E NETWORK RADS

Pace Project No.: 92495960

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### DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

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.

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: BRANCH E NETWORK RADS  
Pace Project No.: 92495960

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92495960001	BRGWC-35S	EPA 9315	415400		
92495960002	BRGWC-34S	EPA 9315	415400		
92495960003	BRGWC-33S	EPA 9315	415402		
92495960004	BRGWC-17S	EPA 9315	415402		
92495960005	BRGWC-36S	EPA 9315	415402		
92495960006	BRGWC-37S	EPA 9315	415402		
92495960007	FB-1	EPA 9315	415402		
92495960008	DUP-2	EPA 9315	415402		
92495960009	BRGWC-38S	EPA 9315	415402		
92495960001	BRGWC-35S	EPA 9320	415401		
92495960002	BRGWC-34S	EPA 9320	415401		
92495960003	BRGWC-33S	EPA 9320	415403		
92495960004	BRGWC-17S	EPA 9320	415403		
92495960005	BRGWC-36S	EPA 9320	415403		
92495960006	BRGWC-37S	EPA 9320	415403		
92495960007	FB-1	EPA 9320	415403		
92495960008	DUP-2	EPA 9320	415403		
92495960009	BRGWC-38S	EPA 9320	415403		
92495960001	BRGWC-35S	Total Radium Calculation	417460		
92495960002	BRGWC-34S	Total Radium Calculation	417460		
92495960003	BRGWC-33S	Total Radium Calculation	417460		
92495960004	BRGWC-17S	Total Radium Calculation	417460		
92495960005	BRGWC-36S	Total Radium Calculation	417460		
92495960006	BRGWC-37S	Total Radium Calculation	417460		
92495960007	FB-1	Total Radium Calculation	417460		
92495960008	DUP-2	Total Radium Calculation	417460		
92495960009	BRGWC-38S	Total Radium Calculation	417460		

### REPORT OF LABORATORY ANALYSIS

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Sample Condition Upon Rec

WO#: 92495960

Client Name: G. A. Lower



Courier:  Fed Ex  UPS  USPS  Client  Commercial  Pace Other

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

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

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

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

Thermometer Used 214

Type of Ice: Wet Blue None

Samples on ice, cooling process has begun

Cooler Temperature 1.1  
Temp should be above freezing to 6°C

Biological Tissue is Frozen: Yes No

Date and initials of person examining contents: 9/17/2004

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

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

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

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

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

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

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

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





Document Name:  
Bottle Identification Form (BIF)  
Document No.:  
F-CAR-CS-043-Rev.00

Document Issued: March 14, 2019  
Page 1 of 1  
Issuing Authority:  
Pace Carolinas Quality Office

Project

W0# : 92495960

PM: KLH1

Due Date: 10/01/20

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/BO15 (water) DOC, LLHg

• Bottom half of box is to list number of bottle

Matrix	Item#	BP4U-125 mL Plastic Unpreserved (N/A) (C-)	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) (C-)	BP3N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic 2N Acetate & NaOH (pH > 9)	BP4C-125 mL Plastic NaOH (pH > 12) (C-)	WG5U-Wide-mouthed Glass Jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (C-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (C-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	AG3A(DG3A)-250 mL Amber NH4Cl (N/A)(C-)	AG3A(DG3A)-250 mL Amber NH4Cl (N/A)(C-)	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)-S03S 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)	AG8U-100 mL Amber Unpreserved vials (N/A)	VS5U-20 mL Scintillation vials (N/A)	
1																													
2																													
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BPIN

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2

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



**CHAIN-OF-CUSTODY Analytical Request Document**

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

Company: Georgia Power - Coal Combustion Residuals		Billing Information:	
Address: 2480 Maner Road Atlanta, GA 30339			
Report To: Iaju Abraham		Email To: sctmvoices@southernco.com	
Copy To: Golder		Site Collection Info/Address: Plant Branch	
Phone: (404) 506-7239		State: Georgia City: Milledgeville Time Zone Collected:	
Email: jabraham@southernco.com		PT     MT     CT     X     T	
Phone: (404) 506-7239		Project Name: Plant Branch E Network	
Email: jabraham@southernco.com		Project # CCR 3rd Semi-Annual	
Collected By (print): Travis Martinez, Andrea McClure		Purchase Order #	
Collected By (signature): <i>[Signature]</i>		Quote #	
Turnaround Date Required:		Immediately Packed on Ice:	
Rush:		Field Filtered (if applicable):	
Same Day     Next Day		Yes     No	
2 Day     3 Day     4 Day     5 Day		Yes     No	
(Faster Changes Apply)		Analysis: _____	

\* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Water (WT), Other (OT)

Customer Sample ID	Matrix *	Comp / Grab	Collected (or Composite Start)		Composite End		pH	# of Ctns
			Date	Time	Date	Time		
BR6WC-355	GW	G	9-16-2020	0905			5.96	7
BR6WC-345	GW	G	9-16-2020	0959			5.81	5
BR6WC-335	GW	G	9-16-2020	1102			4.78	5
BR6WC-175	GW	G	9-16-2020	1230			6.26	5
BR6WC-365	GW	G	9-16-2020	1521			5.58	5
BR6WC-375	GW	G	9-16-2020	1609			5.84	5
FB-1	W	G	9-16-2020	1010			-	5
DUP-2	GW	G	9-16-2020	-			-	5

LAB USE ONLY - Affix Workorder/Login Label Here or List Pace Workorder Number or MTIL Log-in Number Here

**ALL SHADED AREAS are for LAB USE ONLY**

Container Preservative Type **				Lab Project Manager:			
1				1			
** Preservative Types: (1) nitric acid, (2) sulfuric acid, (3) hydrochloric acid, (4) sodium hydroxide, (5) zinc acetate, (6) methanol, (7) sodium bisulfate, (8) sodium thiosulfate, (9) hexane, (10) ascorbic acid, (11) ammonium sulfate, (12) ammonium hydroxide, (13) TSP, (14) Unpreserved, (15) Other							
Analyses				Lab Profile/Line:			
Metals 6010/6020/7470 - see comments	TDS	Chloride/Fluoride/Sulfate	Radium 226.228	Lab Sample Receipt Checklist:			
				Custody Seals Present/Intact Y N NA			
				Custody Signatures Present Y N NA			
				Collector Signature Present Y N NA			
				Bottles Intact Y N NA			
				Correct Bottles Y N NA			
				Sufficient Volume Y N NA			
				Samples Received on Ice Y N NA			
				VQA - Headspace Acceptable Y N NA			
				USDA Regulated Soils Y N NA			
Samples in Holding Time Y N NA							
Residual Chlorine Present Y N NA							
Cl Strips:							
Sample pH Acceptable Y N NA							
pH Strips:							
Sulfide Present Y N NA							
Lead Acetate Strips:							
LAB USE ONLY:							
Lab Sample # / Comments: <i>22495260</i> <i>+ 2 Radium</i>							

(Metals): As, B, Ba, Be, Ca, Cd, Co, Cr, Mo, Pb, Sb, Sn, Li, Tl, Hg	Type of Ice Used: Wet Blue Dry None	SHORT HOLDS PRESENT (<72 hours): Y N N/A
Packing Material Used:		Lab Tracking #:
Radchem sample(s) screened (<500 cpm): Y N NA		Samples received via: FEDEX UPS Client Courier Pace Courier

LAB Sample Temperature Info: Temp Blank Received: Y N NA Therm ID#: <i>214</i> Cooler 1 Temp Upon Receipt: <i>14.6</i> C Cooler 1 Therm Corr. Factor: <i>0.0</i> C Cooler 1 Corrected Temp: <i>14.6</i> C Comments:
---

Relinquished by/Company: (Signature) <i>[Signature]</i> / Golder	Date/Time: 9-17-2020/0800	Received by/Company: (Signature) <i>[Signature]</i>	Date/Time: 9/17/20 1000
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:

MTIL LAB USE ONLY	Trip Blank Received: Y N NA HCL MeOH TSP Other
Acctnum: Template: Prelogin: PM: PB:	Non Conformance(s): Page: 1 YES / NO of: 1



## Quality Control Sample Performance Assessment

Test: Ra-226  
Analyst: LAL  
Date: 9/29/2020  
Worklist: 56346  
Matrix: DW

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

Method Blank Assessment		
MB Sample ID	2008971	
MB concentration:	-0.021	
M/B Counting Uncertainty:	0.170	
MB MDC:	0.482	
MB Numerical Performance Indicator:	-0.25	
MB Status vs Numerical Indicator:	N/A	
MB Status vs. MDC:	Pass	

Laboratory Control Sample Assessment	LCSD (Y or N)?	
	LCS56346	LCSD56346
Count Date:	9/30/2020	9/30/2020
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):	0.504	0.508
Target Conc. (pCi/L, g, F):	4.774	4.731
Uncertainty (Calculated):	0.057	0.057
Result (pCi/L, g, F):	5.388	4.719
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.860	0.780
Numerical Performance Indicator:	1.40	-0.03
Percent Recovery:	112.87%	99.74%
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.:	LCS56346	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.:	LCSD56346	
Sample Result (pCi/L, g, F):	5.388	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.860	
Sample Duplicate Result (pCi/L, g, F):	4.719	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.780	
Are sample and/or duplicate results below RL?	NO	
Duplicate Numerical Performance Indicator:	1.129	92496249001
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	12.34%	92496249001DUP
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:

*Qual 1/2020*

*LAM 10/1/2020*



## Quality Control Sample Performance Assessment

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

Test: Ra-226  
Analyst: LAL  
Date: 9/29/2020  
Worklist: 56346  
Matrix: DW

Method Blank Assessment		
MB Sample ID		2008971
MB concentration:		-0.021
M/B Counting Uncertainty:		0.170
MB MDC:		0.462
MB Numerical Performance Indicator:		-0.25
MB Status vs Numerical Indicator:		N/A
MB Status vs. MDC:		Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	
	LCS56346	LCSD56346
Count Date:	9/30/2020	
Spike I.D.:	19-033	
Decay Corrected Spike Concentration (pCi/mL):	24.044	
Volume Used (mL):	0.10	
Aliquot Volume (L, g, F):	0.504	
Target Conc. (pCi/L, g, F):	4.774	
Uncertainty (Calculated):	0.057	
Result (pCi/L, g, F):	5.388	
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.860	
Numerical Performance Indicator:	1.40	
Percent Recovery:	112.87%	
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.:	92496249001	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.:	92496249001DUP	
Sample Result (pCi/L, g, F):	0.241	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.234	
Sample Duplicate Result (pCi/L, g, F):	0.452	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.344	
Are sample and/or duplicate results below RL?	See Below ##	
Duplicate Numerical Performance Indicator:	-0.992	92496249001
Duplicate RPD:	60.82%	92496249001DUP
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

LAL 10/1/2020

Mud 10/1/2020

LAL 10/1/2020



## Quality Control Sample Performance Assessment

Test: Ra-226  
Analyst: LAL  
Date: 9/29/2020  
Worklist: 56344  
Matrix: DW

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

Method Blank Assessment		
MB Sample ID	2008968	
MB concentration:	0.094	
M/B Counting Uncertainty:	0.180	
MB MDC:	0.415	
MB Numerical Performance Indicator:	1.02	
MB Status vs Numerical Indicator:	N/A	
MB Status vs. MDC:	Pass	

Laboratory Control Sample Assessment	LCS/D (Y or N)?	Y
	LCS56344	LCS/D56344
Count Date:	9/30/2020	9/30/2020
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):	0.509	0.505
Target Conc. (pCi/L, g, F):	4.723	4.761
Uncertainty (Calculated):	0.057	0.057
Result (pCi/L, g, F):	3.880	3.912
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.699	0.693
Numerical Performance Indicator:	-2.36	-2.39
Percent Recovery:	82.15%	82.18%
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.:	LCS56344	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.:	LCS/D56344	
Sample Result (pCi/L, g, F):	3.880	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.699	
Sample Duplicate Result (pCi/L, g, F):	3.912	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.693	
Are sample and/or duplicate results below RL?	NO	
Duplicate Numerical Performance Indicator:	-0.065	92495960001
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	0.04%	92495960001DUP
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:

*Mu 10/1/2020*

*UAM 10/1/2020*



## Quality Control Sample Performance Assessment

Test: Ra-226  
Analyst: LAL  
Date: 9/29/2020  
Worklist: 56344  
Matrix: DW

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

Method Blank Assessment		
MB Sample ID	2008968	
MB concentration:	0.094	
M/B Counting Uncertainty:	0.180	
MB MDC:	0.415	
MB Numerical Performance Indicator:	1.02	
MB Status vs Numerical Indicator:	N/A	
MB Status vs. MDC:	Pass	

Laboratory Control Sample Assessment	LCSD (Y or N)?	N
	LCSD56344	LCSD56344
Count Date:	9/30/2020	
Spike I.D.:	19-033	
Decay Corrected Spike Concentration (pCi/mL):	24.044	
Volume Used (mL):	0.10	
Aliquot Volume (L, g, F):	0.509	
Target Conc. (pCi/L, g, F):	4.723	
Uncertainty (Calculated):	0.057	
Result (pCi/L, g, F):	3.880	
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.699	
Numerical Performance Indicator:	-2.36	
Percent Recovery:	82.15%	
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.:	92495960001	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.:	92495960001DUP	
Sample Result (pCi/L, g, F):	0.399	
Sample Result Counting Uncertainty (pCi/L, g, F):	0.282	
Sample Duplicate Result (pCi/L, g, F):	0.152	
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.250	
Are sample and/or duplicate results below RL?	See Below ##	
Duplicate Numerical Performance Indicator:	1.284	92495960001
Duplicate RPD:	89.47%	92495960001DUP
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

UAM 10/1/2020

UAM 10/1/2020

UAM 10/1/2020



## Quality Control Sample Performance Assessment

Test: Ra-228  
Analyst: VAL  
Date: 9/29/2020  
Worklist: 56345  
Matrix: WT

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

Method Blank Assessment		
MB Sample ID	2008969	
MB concentration:	0.804	
M/B 2 Sigma CSU:	0.467	
MB MDC:	0.852	
MB Numerical Performance Indicator:	3.38	
MB Status vs Numerical Indicator:	Fail*	
MB Status vs. MDC:	Pass	

Laboratory Control Sample Assessment	LCSD (Y or N)?	
	LCSD56345	LCSD56345
Count Date:	10/5/2020	10/5/2020
Spike I.D.:	20-030	20-030
Decay Corrected Spike Concentration (pCi/mL):	38.140	38.140
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.819	0.806
Target Conc. (pCi/L, g, F):	4.659	4.732
Uncertainty (Calculated):	0.228	0.232
Result (pCi/L, g, F):	4.491	4.137
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	1.317	1.305
Numerical Performance Indicator:	-0.25	-0.88
Percent Recovery:	96.38%	87.43%
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.:	LCSD56345	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.:	LCSD56345	
Sample Result (pCi/L, g, F):	4.491	
Sample Result 2 Sigma CSU (pCi/L, g, F):	1.317	
Sample Duplicate Result (pCi/L, g, F):	4.137	
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	1.305	
Are sample and/or duplicate results below RL?	NO	
Duplicate Numerical Performance Indicator:	0.373	
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	9.74%	
Duplicate Status vs Numerical Indicator:	Pass	
Duplicate Status vs RPD:	Pass	
% RPD Limit:	36%	

Matrix Spike/Matrix Spike Duplicate Sample Assessment	MS/MSD 1	MS/MSD 2
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:**

\*If the lowest activity sample in this batch is greater than ten times the blank value, the blank is acceptable; otherwise this batch must be re-prepared.

10/6/20

10/16/2020



## Quality Control Sample Performance Assessment

Test: Ra-228  
Analyst: VAL  
Date: 9/29/2020  
Worklist: 56347  
Matrix: WT

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

Method Blank Assessment	
MB Sample ID	2008973
MB concentration:	0.789
M/B 2 Sigma CSU:	0.460
MB MDC:	0.832
MB Numerical Performance Indicator:	3.36
MB Status vs Numerical Indicator:	Fail*
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCS/D (Y or N)?	N
	LCS56347	LCS/D56347
Count Date:	10/6/2020	
Spike I.D.:	20-030	
Decay Corrected Spike Concentration (pCi/mL):	38.131	
Volume Used (mL):	0.10	
Aliquot Volume (L, g, F):	0.814	
Target Conc. (pCi/L, g, F):	4.687	
Uncertainty (Calculated):	0.230	
Result (pCi/L, g, F):	6.664	
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	1.522	
Numerical Performance Indicator:	2.52	
Percent Recovery:	142.18%	
Status vs Numerical Indicator:	Warning	
Status vs Recovery:	Fail High**	
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.:	92496249001	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Duplicate Sample I.D.:	92496249001DUP	
Sample Result (pCi/L, g, F):	0.711	
Sample Result 2 Sigma CSU (pCi/L, g, F):	0.513	
Sample Duplicate Result (pCi/L, g, F):	0.232	
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	0.545	
Are sample and/or duplicate results below RL?	See Below ##	
Duplicate Numerical Performance Indicator:	1.254	92496249001
Duplicate RPD:	101.60%	92496249001DUP
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:**

\*If the lowest activity sample in this batch is greater than ten times the blank value, the blank is acceptable; otherwise this batch must be re-prepped.

\*\*If all sample results are below MDC, the batch is acceptable, otherwise this batch must be re-prepped due to LCS failure.

*OK for report NI < 3 acceptable for all WT batch*

*VAL 10/17/2020*

*10-1-20*



October 01, 2020

Joju Abraham  
Georgia Power-CCR  
2480 Maner Road  
Atlanta, GA 30339

RE: Project: BRANCH E NETWORK  
Pace Project No.: 92495964

Dear Joju Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory between September 17, 2020 and September 18, 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,



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

Enclosures

cc: Daniela Herrera, Golder  
Ben Hodges, Georgia Power  
Jimmy Jones, Golder Associates Inc.  
Kristen Jurinko  
Julie Lehrman, Golder Associates Inc.  
Ms. Lauren Petty, Southern Co. Services  
Carolyn Powrozek, Golder  
Dawn Prell, Golder Associates Inc.  
Tim Richards, Golder Associates - Atlanta

Brian Steele, Golder



## REPORT OF LABORATORY ANALYSIS

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## CERTIFICATIONS

Project: BRANCH E NETWORK

Pace Project No.: 92495964

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### **Pace Analytical Services Charlotte**

9800 Kinsey 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

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### **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

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### **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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## REPORT OF LABORATORY ANALYSIS

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## SAMPLE SUMMARY

Project: BRANCH E NETWORK

Pace Project No.: 92495964

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92495964001	BRGWC-35S	Water	09/16/20 09:05	09/17/20 10:00
92495964002	BRGWC-34S	Water	09/16/20 09:59	09/17/20 10:00
92495964003	BRGWC-33S	Water	09/16/20 11:02	09/17/20 10:00
92495964004	BRGWC-17S	Water	09/16/20 12:30	09/17/20 10:00
92495964005	BRGWC-36S	Water	09/16/20 15:21	09/17/20 10:00
92495964006	BRGWC-37S	Water	09/16/20 16:09	09/17/20 10:00
92495964007	FB-1	Water	09/16/20 10:10	09/17/20 10:00
92495964008	DUP-2	Water	09/16/20 00:00	09/17/20 10:00
92495964009	BRGWC-38S	Water	09/17/20 11:26	09/18/20 10:15

## REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: BRANCH E NETWORK  
Pace Project No.: 92495964

Lab ID	Sample ID	Method	Analysts	Analytes Reported
92495964001	BRGWC-35S	EPA 6010D	DRB	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2450C-2011	AW1	1
		EPA 300.0 Rev 2.1 1993	BRJ	3
92495964002	BRGWC-34S	EPA 6010D	DRB	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2450C-2011	AW1	1
		EPA 300.0 Rev 2.1 1993	BRJ	3
92495964003	BRGWC-33S	EPA 6010D	DRB	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2450C-2011	AW1	1
		EPA 300.0 Rev 2.1 1993	BRJ	3
92495964004	BRGWC-17S	EPA 6010D	DRB	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2450C-2011	AW1	1
		EPA 300.0 Rev 2.1 1993	BRJ	3
92495964005	BRGWC-36S	EPA 6010D	DRB	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2450C-2011	AW1	1
		EPA 300.0 Rev 2.1 1993	BRJ	3
92495964006	BRGWC-37S	EPA 6010D	DRB	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2450C-2011	AW1	1
		EPA 300.0 Rev 2.1 1993	BRJ	3
92495964007	FB-1	EPA 6010D	DRB	1
		EPA 6020B	CW1	13
		EPA 7470A	VB	1
		SM 2450C-2011	AW1	1
		EPA 300.0 Rev 2.1 1993	BRJ	3
92495964008	DUP-2	EPA 6010D	DRB	1
		EPA 6020B	CW1	13

### REPORT OF LABORATORY ANALYSIS

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### SAMPLE ANALYTE COUNT

Project: BRANCH E NETWORK

Pace Project No.: 92495964

Lab ID	Sample ID	Method	Analysts	Analytes Reported
		EPA 7470A	VB	1
		SM 2450C-2011	AW1	1
		EPA 300.0 Rev 2.1 1993	BRJ	3
<b>92495964009</b>	<b>BRGWC-38S</b>	EPA 6010D	DRB	1
		EPA 6020B	CW1	13
		EPA 7470A	FFP	1
		SM 2450C-2011	ALW	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: BRANCH E NETWORK

Pace Project No.: 92495964

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>92495964001</b>	<b>BRGWC-35S</b>					
	pH	5.96	Std. Units		09/29/20 12:27	
EPA 6010D	Calcium	61.8	mg/L	1.0	09/22/20 21:32	
EPA 6020B	Barium	0.033	mg/L	0.010	09/22/20 17:42	
EPA 6020B	Beryllium	0.00014J	mg/L	0.0030	09/22/20 17:42	
EPA 6020B	Boron	1.9	mg/L	0.10	09/22/20 17:42	
EPA 6020B	Chromium	0.0058J	mg/L	0.010	09/22/20 17:42	
EPA 6020B	Lead	0.00012J	mg/L	0.0050	09/22/20 17:42	
EPA 6020B	Lithium	0.0020J	mg/L	0.030	09/22/20 17:42	
SM 2450C-2011	Total Dissolved Solids	474	mg/L	10.0	09/18/20 09:58	
EPA 300.0 Rev 2.1 1993	Chloride	6.0	mg/L	1.0	09/19/20 18:22	
EPA 300.0 Rev 2.1 1993	Fluoride	0.062J	mg/L	0.10	09/19/20 18:22	
EPA 300.0 Rev 2.1 1993	Sulfate	270	mg/L	6.0	09/20/20 04:47	
<b>92495964002</b>	<b>BRGWC-34S</b>					
	pH	5.81	Std. Units		09/29/20 12:27	
EPA 6010D	Calcium	77.7	mg/L	1.0	09/22/20 21:37	
EPA 6020B	Barium	0.023	mg/L	0.010	09/22/20 17:48	
EPA 6020B	Beryllium	0.00014J	mg/L	0.0030	09/22/20 17:48	
EPA 6020B	Boron	2.2	mg/L	0.10	09/22/20 17:48	
EPA 6020B	Cadmium	0.00017J	mg/L	0.0025	09/22/20 17:48	
EPA 6020B	Cobalt	0.0042J	mg/L	0.0050	09/22/20 17:48	
SM 2450C-2011	Total Dissolved Solids	392	mg/L	10.0	09/18/20 09:58	
EPA 300.0 Rev 2.1 1993	Chloride	6.6	mg/L	1.0	09/19/20 18:37	
EPA 300.0 Rev 2.1 1993	Fluoride	0.077J	mg/L	0.10	09/19/20 18:37	
EPA 300.0 Rev 2.1 1993	Sulfate	283	mg/L	6.0	09/20/20 05:01	
<b>92495964003</b>	<b>BRGWC-33S</b>					
	pH	4.78	Std. Units		09/29/20 12:27	
EPA 6010D	Calcium	37.9	mg/L	1.0	09/22/20 21:41	
EPA 6020B	Barium	0.019	mg/L	0.010	09/22/20 17:53	
EPA 6020B	Beryllium	0.0015J	mg/L	0.0030	09/22/20 17:53	
EPA 6020B	Boron	1.1	mg/L	0.10	09/22/20 17:53	
EPA 6020B	Cadmium	0.00032J	mg/L	0.0025	09/22/20 17:53	
EPA 6020B	Cobalt	0.034	mg/L	0.0050	09/22/20 17:53	
EPA 6020B	Lead	0.000063J	mg/L	0.0050	09/22/20 17:53	
EPA 6020B	Lithium	0.0089J	mg/L	0.030	09/22/20 17:53	
EPA 6020B	Selenium	0.0028J	mg/L	0.010	09/22/20 17:53	
EPA 6020B	Thallium	0.00018J	mg/L	0.0010	09/22/20 17:53	
SM 2450C-2011	Total Dissolved Solids	88.0	mg/L	10.0	09/18/20 09:59	
EPA 300.0 Rev 2.1 1993	Chloride	4.1	mg/L	1.0	09/19/20 18:52	
EPA 300.0 Rev 2.1 1993	Fluoride	0.085J	mg/L	0.10	09/19/20 18:52	
EPA 300.0 Rev 2.1 1993	Sulfate	154	mg/L	3.0	09/20/20 05:16	
<b>92495964004</b>	<b>BRGWC-17S</b>					
	pH	6.26	Std. Units		09/29/20 12:27	
EPA 6010D	Calcium	37.9	mg/L	1.0	09/22/20 21:45	
EPA 6020B	Barium	0.044	mg/L	0.010	09/22/20 18:11	
EPA 6020B	Boron	0.0066J	mg/L	0.10	09/22/20 18:11	
EPA 6020B	Chromium	0.012	mg/L	0.010	09/22/20 18:11	

### REPORT OF LABORATORY ANALYSIS

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### SUMMARY OF DETECTION

Project: BRANCH E NETWORK

Pace Project No.: 92495964

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
<b>92495964004</b>	<b>BRGWC-17S</b>					
EPA 6020B	Lead	0.000054J	mg/L	0.0050	09/22/20 18:11	
EPA 6020B	Lithium	0.00096J	mg/L	0.030	09/22/20 18:11	
SM 2450C-2011	Total Dissolved Solids	316	mg/L	10.0	09/18/20 09:59	
EPA 300.0 Rev 2.1 1993	Chloride	4.2	mg/L	1.0	09/19/20 19:07	
EPA 300.0 Rev 2.1 1993	Fluoride	0.10	mg/L	0.10	09/19/20 19:07	
EPA 300.0 Rev 2.1 1993	Sulfate	151	mg/L	3.0	09/20/20 05:30	
<b>92495964005</b>	<b>BRGWC-36S</b>					
	pH	5.58	Std. Units		09/29/20 12:27	
EPA 6010D	Calcium	45.9	mg/L	1.0	09/22/20 21:50	
EPA 6020B	Barium	0.030	mg/L	0.010	09/22/20 18:16	
EPA 6020B	Beryllium	0.000080J	mg/L	0.0030	09/22/20 18:16	
EPA 6020B	Boron	0.99	mg/L	0.10	09/22/20 18:16	
EPA 6020B	Chromium	0.0064J	mg/L	0.010	09/22/20 18:16	
EPA 6020B	Lithium	0.0022J	mg/L	0.030	09/22/20 18:16	
EPA 6020B	Selenium	0.0031J	mg/L	0.010	09/22/20 18:16	
SM 2450C-2011	Total Dissolved Solids	463	mg/L	10.0	09/18/20 09:59	
EPA 300.0 Rev 2.1 1993	Chloride	7.9	mg/L	1.0	09/19/20 19:22	
EPA 300.0 Rev 2.1 1993	Sulfate	256	mg/L	5.0	09/20/20 06:15	M6
<b>92495964006</b>	<b>BRGWC-37S</b>					
	pH	5.84	Std. Units		09/29/20 12:27	
EPA 6010D	Calcium	3.2	mg/L	1.0	09/22/20 21:54	
EPA 6020B	Barium	0.024	mg/L	0.010	09/22/20 18:22	
EPA 6020B	Boron	0.0062J	mg/L	0.10	09/22/20 18:22	
EPA 6020B	Chromium	0.0018J	mg/L	0.010	09/22/20 18:22	
SM 2450C-2011	Total Dissolved Solids	31.0	mg/L	10.0	09/18/20 09:59	
EPA 300.0 Rev 2.1 1993	Chloride	1.8	mg/L	1.0	09/19/20 20:07	
<b>92495964008</b>	<b>DUP-2</b>					
EPA 6010D	Calcium	47.6	mg/L	1.0	09/25/20 19:00	
EPA 6020B	Barium	0.030	mg/L	0.010	09/22/20 18:34	
EPA 6020B	Beryllium	0.000085J	mg/L	0.0030	09/22/20 18:34	
EPA 6020B	Boron	1.0	mg/L	0.10	09/22/20 18:34	
EPA 6020B	Chromium	0.0067J	mg/L	0.010	09/22/20 18:34	
EPA 6020B	Lithium	0.0023J	mg/L	0.030	09/22/20 18:34	
EPA 6020B	Selenium	0.0040J	mg/L	0.010	09/22/20 18:34	
SM 2450C-2011	Total Dissolved Solids	462	mg/L	10.0	09/18/20 09:59	
EPA 300.0 Rev 2.1 1993	Chloride	7.9	mg/L	1.0	09/19/20 20:36	
EPA 300.0 Rev 2.1 1993	Sulfate	251	mg/L	5.0	09/20/20 06:59	
<b>92495964009</b>	<b>BRGWC-38S</b>					
	pH	4.17	Std. Units		09/29/20 12:27	
EPA 6010D	Calcium	33.1	mg/L	1.0	09/25/20 19:26	
EPA 6020B	Arsenic	0.0015J	mg/L	0.0050	09/22/20 20:22	
EPA 6020B	Barium	0.014	mg/L	0.010	09/22/20 20:22	
EPA 6020B	Beryllium	0.0073	mg/L	0.0030	09/22/20 20:22	
EPA 6020B	Boron	1.4	mg/L	0.10	09/22/20 20:22	
EPA 6020B	Cadmium	0.00050J	mg/L	0.0025	09/22/20 20:22	

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### SUMMARY OF DETECTION

Project: BRANCH E NETWORK

Pace Project No.: 92495964

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
<b>92495964009</b>	<b>BRGWC-38S</b>					
EPA 6020B	Chromium	0.0042J	mg/L	0.010	09/22/20 20:22	
EPA 6020B	Cobalt	0.20	mg/L	0.0050	09/22/20 20:22	
EPA 6020B	Lead	0.00032J	mg/L	0.0050	09/22/20 20:22	
EPA 6020B	Lithium	0.020J	mg/L	0.030	09/22/20 20:22	
EPA 6020B	Selenium	0.029	mg/L	0.010	09/22/20 20:22	
EPA 6020B	Thallium	0.00017J	mg/L	0.0010	09/22/20 20:22	
EPA 7470A	Mercury	0.00011J	mg/L	0.00050	09/23/20 10:43	
SM 2450C-2011	Total Dissolved Solids	587	mg/L	10.0	09/21/20 16:29	
EPA 300.0 Rev 2.1 1993	Chloride	6.1	mg/L	1.0	09/22/20 12:31	
EPA 300.0 Rev 2.1 1993	Fluoride	0.68	mg/L	0.10	09/22/20 12:31	
EPA 300.0 Rev 2.1 1993	Sulfate	356	mg/L	7.0	09/22/20 18:55	

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### ANALYTICAL RESULTS

Project: BRANCH E NETWORK  
Pace Project No.: 92495964

Sample: BRGWC-35S		Lab ID: 92495964001		Collected: 09/16/20 09:05		Received: 09/17/20 10:00		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
pH	5.96	Std. Units			1		09/29/20 12:27		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA									
Calcium	61.8	mg/L	1.0	0.070	1	09/22/20 14:15	09/22/20 21:32	7440-70-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00028	1	09/18/20 11:00	09/22/20 17:42	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	09/18/20 11:00	09/22/20 17:42	7440-38-2	
Barium	0.033	mg/L	0.010	0.00071	1	09/18/20 11:00	09/22/20 17:42	7440-39-3	
Beryllium	0.00014J	mg/L	0.0030	0.000046	1	09/18/20 11:00	09/22/20 17:42	7440-41-7	
Boron	1.9	mg/L	0.10	0.0052	1	09/18/20 11:00	09/22/20 17:42	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00012	1	09/18/20 11:00	09/22/20 17:42	7440-43-9	
Chromium	0.0058J	mg/L	0.010	0.00055	1	09/18/20 11:00	09/22/20 17:42	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00038	1	09/18/20 11:00	09/22/20 17:42	7440-48-4	
Lead	0.00012J	mg/L	0.0050	0.000036	1	09/18/20 11:00	09/22/20 17:42	7439-92-1	
Lithium	0.0020J	mg/L	0.030	0.00081	1	09/18/20 11:00	09/22/20 17:42	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	09/18/20 11:00	09/22/20 17:42	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	09/18/20 11:00	09/22/20 17:42	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	09/18/20 11:00	09/22/20 17:42	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00050	0.000078	1	09/18/20 08:30	09/18/20 14:52	7439-97-6	
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	474	mg/L	10.0	10.0	1		09/18/20 09:58		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	6.0	mg/L	1.0	0.60	1		09/19/20 18:22	16887-00-6	
Fluoride	0.062J	mg/L	0.10	0.050	1		09/19/20 18:22	16984-48-8	
Sulfate	270	mg/L	6.0	3.0	6		09/20/20 04:47	14808-79-8	

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### ANALYTICAL RESULTS

Project: BRANCH E NETWORK

Pace Project No.: 92495964

Sample: <b>BRGWC-34S</b>		Lab ID: <b>92495964002</b>		Collected: 09/16/20 09:59		Received: 09/17/20 10:00		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
pH	<b>5.81</b>	Std. Units			1		09/29/20 12:27		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A									
Pace Analytical Services - Peachtree Corners, GA									
Calcium	<b>77.7</b>	mg/L	1.0	0.070	1	09/22/20 14:15	09/22/20 21:37	7440-70-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00028	1	09/18/20 11:00	09/22/20 17:48	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	09/18/20 11:00	09/22/20 17:48	7440-38-2	
Barium	<b>0.023</b>	mg/L	0.010	0.00071	1	09/18/20 11:00	09/22/20 17:48	7440-39-3	
Beryllium	<b>0.00014J</b>	mg/L	0.0030	0.000046	1	09/18/20 11:00	09/22/20 17:48	7440-41-7	
Boron	<b>2.2</b>	mg/L	0.10	0.0052	1	09/18/20 11:00	09/22/20 17:48	7440-42-8	
Cadmium	<b>0.00017J</b>	mg/L	0.0025	0.00012	1	09/18/20 11:00	09/22/20 17:48	7440-43-9	
Chromium	ND	mg/L	0.010	0.00055	1	09/18/20 11:00	09/22/20 17:48	7440-47-3	
Cobalt	<b>0.0042J</b>	mg/L	0.0050	0.00038	1	09/18/20 11:00	09/22/20 17:48	7440-48-4	
Lead	ND	mg/L	0.0050	0.000036	1	09/18/20 11:00	09/22/20 17:48	7439-92-1	
Lithium	ND	mg/L	0.030	0.00081	1	09/18/20 11:00	09/22/20 17:48	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	09/18/20 11:00	09/22/20 17:48	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	09/18/20 11:00	09/22/20 17:48	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	09/18/20 11:00	09/22/20 17:48	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00050	0.000078	1	09/18/20 08:30	09/18/20 14:54	7439-97-6	
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2450C-2011									
Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	<b>392</b>	mg/L	10.0	10.0	1		09/18/20 09:58		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Chloride	<b>6.6</b>	mg/L	1.0	0.60	1		09/19/20 18:37	16887-00-6	
Fluoride	<b>0.077J</b>	mg/L	0.10	0.050	1		09/19/20 18:37	16984-48-8	
Sulfate	<b>283</b>	mg/L	6.0	3.0	6		09/20/20 05:01	14808-79-8	

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## ANALYTICAL RESULTS

Project: BRANCH E NETWORK

Pace Project No.: 92495964

Sample: BRGWC-33S		Lab ID: 92495964003		Collected: 09/16/20 11:02		Received: 09/17/20 10:00		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
pH	4.78	Std. Units			1		09/29/20 12:27		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A									
Pace Analytical Services - Peachtree Corners, GA									
Calcium	37.9	mg/L	1.0	0.070	1	09/22/20 14:15	09/22/20 21:41	7440-70-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00028	1	09/18/20 11:00	09/22/20 17:53	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	09/18/20 11:00	09/22/20 17:53	7440-38-2	
Barium	0.019	mg/L	0.010	0.00071	1	09/18/20 11:00	09/22/20 17:53	7440-39-3	
Beryllium	0.0015J	mg/L	0.0030	0.000046	1	09/18/20 11:00	09/22/20 17:53	7440-41-7	
Boron	1.1	mg/L	0.10	0.0052	1	09/18/20 11:00	09/22/20 17:53	7440-42-8	
Cadmium	0.00032J	mg/L	0.0025	0.00012	1	09/18/20 11:00	09/22/20 17:53	7440-43-9	
Chromium	ND	mg/L	0.010	0.00055	1	09/18/20 11:00	09/22/20 17:53	7440-47-3	
Cobalt	0.034	mg/L	0.0050	0.00038	1	09/18/20 11:00	09/22/20 17:53	7440-48-4	
Lead	0.000063J	mg/L	0.0050	0.000036	1	09/18/20 11:00	09/22/20 17:53	7439-92-1	
Lithium	0.0089J	mg/L	0.030	0.00081	1	09/18/20 11:00	09/22/20 17:53	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	09/18/20 11:00	09/22/20 17:53	7439-98-7	
Selenium	0.0028J	mg/L	0.010	0.0016	1	09/18/20 11:00	09/22/20 17:53	7782-49-2	
Thallium	0.00018J	mg/L	0.0010	0.00014	1	09/18/20 11:00	09/22/20 17:53	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00050	0.000078	1	09/18/20 08:30	09/18/20 14:56	7439-97-6	
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2450C-2011									
Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	88.0	mg/L	10.0	10.0	1		09/18/20 09:59		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Chloride	4.1	mg/L	1.0	0.60	1		09/19/20 18:52	16887-00-6	
Fluoride	0.085J	mg/L	0.10	0.050	1		09/19/20 18:52	16984-48-8	
Sulfate	154	mg/L	3.0	1.5	3		09/20/20 05:16	14808-79-8	

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## ANALYTICAL RESULTS

Project: BRANCH E NETWORK

Pace Project No.: 92495964

Sample: <b>BRGWC-17S</b>		Lab ID: <b>92495964004</b>		Collected: 09/16/20 12:30	Received: 09/17/20 10:00	Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
pH	<b>6.26</b>	Std. Units			1		09/29/20 12:27		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A									
Pace Analytical Services - Peachtree Corners, GA									
Calcium	<b>37.9</b>	mg/L	1.0	0.070	1	09/22/20 14:15	09/22/20 21:45	7440-70-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00028	1	09/18/20 11:00	09/22/20 18:11	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	09/18/20 11:00	09/22/20 18:11	7440-38-2	
Barium	<b>0.044</b>	mg/L	0.010	0.00071	1	09/18/20 11:00	09/22/20 18:11	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000046	1	09/18/20 11:00	09/22/20 18:11	7440-41-7	
Boron	<b>0.0066J</b>	mg/L	0.10	0.0052	1	09/18/20 11:00	09/22/20 18:11	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00012	1	09/18/20 11:00	09/22/20 18:11	7440-43-9	
Chromium	<b>0.012</b>	mg/L	0.010	0.00055	1	09/18/20 11:00	09/22/20 18:11	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00038	1	09/18/20 11:00	09/22/20 18:11	7440-48-4	
Lead	<b>0.000054J</b>	mg/L	0.0050	0.000036	1	09/18/20 11:00	09/22/20 18:11	7439-92-1	
Lithium	<b>0.00096J</b>	mg/L	0.030	0.00081	1	09/18/20 11:00	09/22/20 18:11	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	09/18/20 11:00	09/22/20 18:11	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	09/18/20 11:00	09/22/20 18:11	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	09/18/20 11:00	09/22/20 18:11	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00050	0.000078	1	09/18/20 08:30	09/18/20 14:59	7439-97-6	
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2450C-2011									
Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	<b>316</b>	mg/L	10.0	10.0	1		09/18/20 09:59		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Chloride	<b>4.2</b>	mg/L	1.0	0.60	1		09/19/20 19:07	16887-00-6	
Fluoride	<b>0.10</b>	mg/L	0.10	0.050	1		09/19/20 19:07	16984-48-8	
Sulfate	<b>151</b>	mg/L	3.0	1.5	3		09/20/20 05:30	14808-79-8	

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## ANALYTICAL RESULTS

Project: BRANCH E NETWORK

Pace Project No.: 92495964

Sample: BRGWC-36S		Lab ID: 92495964005		Collected: 09/16/20 15:21		Received: 09/17/20 10:00		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
pH	5.58	Std. Units			1		09/29/20 12:27		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A									
Pace Analytical Services - Peachtree Corners, GA									
Calcium	45.9	mg/L	1.0	0.070	1	09/22/20 14:15	09/22/20 21:50	7440-70-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00028	1	09/18/20 11:00	09/22/20 18:16	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	09/18/20 11:00	09/22/20 18:16	7440-38-2	
Barium	0.030	mg/L	0.010	0.00071	1	09/18/20 11:00	09/22/20 18:16	7440-39-3	
Beryllium	0.000080J	mg/L	0.0030	0.000046	1	09/18/20 11:00	09/22/20 18:16	7440-41-7	
Boron	0.99	mg/L	0.10	0.0052	1	09/18/20 11:00	09/22/20 18:16	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00012	1	09/18/20 11:00	09/22/20 18:16	7440-43-9	
Chromium	0.0064J	mg/L	0.010	0.00055	1	09/18/20 11:00	09/22/20 18:16	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00038	1	09/18/20 11:00	09/22/20 18:16	7440-48-4	
Lead	ND	mg/L	0.0050	0.000036	1	09/18/20 11:00	09/22/20 18:16	7439-92-1	
Lithium	0.0022J	mg/L	0.030	0.00081	1	09/18/20 11:00	09/22/20 18:16	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	09/18/20 11:00	09/22/20 18:16	7439-98-7	
Selenium	0.0031J	mg/L	0.010	0.0016	1	09/18/20 11:00	09/22/20 18:16	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	09/18/20 11:00	09/22/20 18:16	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00050	0.000078	1	09/18/20 08:30	09/18/20 15:01	7439-97-6	
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2450C-2011									
Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	463	mg/L	10.0	10.0	1		09/18/20 09:59		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Chloride	7.9	mg/L	1.0	0.60	1		09/19/20 19:22	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		09/19/20 19:22	16984-48-8	
Sulfate	256	mg/L	5.0	2.5	5		09/20/20 06:15	14808-79-8	M6

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## ANALYTICAL RESULTS

Project: BRANCH E NETWORK

Pace Project No.: 92495964

Sample: BRGWC-37S		Lab ID: 92495964006		Collected: 09/16/20 16:09		Received: 09/17/20 10:00		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
pH	5.84	Std. Units			1		09/29/20 12:27		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A									
Pace Analytical Services - Peachtree Corners, GA									
Calcium	3.2	mg/L	1.0	0.070	1	09/22/20 14:15	09/22/20 21:54	7440-70-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00028	1	09/18/20 11:00	09/22/20 18:22	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	09/18/20 11:00	09/22/20 18:22	7440-38-2	
Barium	0.024	mg/L	0.010	0.00071	1	09/18/20 11:00	09/22/20 18:22	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000046	1	09/18/20 11:00	09/22/20 18:22	7440-41-7	
Boron	0.0062J	mg/L	0.10	0.0052	1	09/18/20 11:00	09/22/20 18:22	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00012	1	09/18/20 11:00	09/22/20 18:22	7440-43-9	
Chromium	0.0018J	mg/L	0.010	0.00055	1	09/18/20 11:00	09/22/20 18:22	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00038	1	09/18/20 11:00	09/22/20 18:22	7440-48-4	
Lead	ND	mg/L	0.0050	0.000036	1	09/18/20 11:00	09/22/20 18:22	7439-92-1	
Lithium	ND	mg/L	0.030	0.00081	1	09/18/20 11:00	09/22/20 18:22	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	09/18/20 11:00	09/22/20 18:22	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	09/18/20 11:00	09/22/20 18:22	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	09/18/20 11:00	09/22/20 18:22	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Pace Analytical Services - Peachtree Corners, GA									
Mercury	ND	mg/L	0.00050	0.000078	1	09/18/20 08:30	09/18/20 15:03	7439-97-6	
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2450C-2011									
Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	31.0	mg/L	10.0	10.0	1		09/18/20 09:59		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Chloride	1.8	mg/L	1.0	0.60	1		09/19/20 20:07	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		09/19/20 20:07	16984-48-8	
Sulfate	ND	mg/L	1.0	0.50	1		09/19/20 20:07	14808-79-8	

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## ANALYTICAL RESULTS

Project: BRANCH E NETWORK

Pace Project No.: 92495964

Sample: FB-1		Lab ID: 92495964007		Collected: 09/16/20 10:10	Received: 09/17/20 10:00	Matrix: Water			
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
<b>6010D ATL ICP</b>		Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA							
Calcium	ND	mg/L	1.0	0.070	1	09/22/20 14:15	09/22/20 21:58	7440-70-2	
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA							
Antimony	ND	mg/L	0.0030	0.00028	1	09/18/20 11:00	09/22/20 18:28	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00078	1	09/18/20 11:00	09/22/20 18:28	7440-38-2	
Barium	ND	mg/L	0.010	0.00071	1	09/18/20 11:00	09/22/20 18:28	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000046	1	09/18/20 11:00	09/22/20 18:28	7440-41-7	
Boron	ND	mg/L	0.10	0.0052	1	09/18/20 11:00	09/22/20 18:28	7440-42-8	
Cadmium	ND	mg/L	0.0025	0.00012	1	09/18/20 11:00	09/22/20 18:28	7440-43-9	
Chromium	ND	mg/L	0.010	0.00055	1	09/18/20 11:00	09/22/20 18:28	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00038	1	09/18/20 11:00	09/22/20 18:28	7440-48-4	
Lead	ND	mg/L	0.0050	0.000036	1	09/18/20 11:00	09/22/20 18:28	7439-92-1	
Lithium	ND	mg/L	0.030	0.00081	1	09/18/20 11:00	09/22/20 18:28	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	09/18/20 11:00	09/22/20 18:28	7439-98-7	
Selenium	ND	mg/L	0.010	0.0016	1	09/18/20 11:00	09/22/20 18:28	7782-49-2	
Thallium	ND	mg/L	0.0010	0.00014	1	09/18/20 11:00	09/22/20 18:28	7440-28-0	
<b>7470 Mercury</b>		Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA							
Mercury	ND	mg/L	0.00050	0.000078	1	09/18/20 08:30	09/18/20 15:06	7439-97-6	
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA							
Total Dissolved Solids	ND	mg/L	10.0	10.0	1		09/18/20 09:59		
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville							
Chloride	ND	mg/L	1.0	0.60	1		09/19/20 20:21	16887-00-6	
Fluoride	ND	mg/L	0.10	0.050	1		09/19/20 20:21	16984-48-8	
Sulfate	ND	mg/L	1.0	0.50	1		09/19/20 20:21	14808-79-8	

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### ANALYTICAL RESULTS

Project: BRANCH E NETWORK  
Pace Project No.: 92495964

Sample: DUP-2		Lab ID: 92495964008		Collected: 09/16/20 00:00	Received: 09/17/20 10:00	Matrix: Water				
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
<b>6010D ATL ICP</b>		Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Peachtree Corners, GA								
Calcium	<b>47.6</b>	mg/L	1.0	0.070	1	09/24/20 14:17	09/25/20 19:00	7440-70-2		
<b>6020 MET ICPMS</b>		Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Peachtree Corners, GA								
Antimony	ND	mg/L	0.0030	0.00028	1	09/18/20 11:00	09/22/20 18:34	7440-36-0		
Arsenic	ND	mg/L	0.0050	0.00078	1	09/18/20 11:00	09/22/20 18:34	7440-38-2		
Barium	<b>0.030</b>	mg/L	0.010	0.00071	1	09/18/20 11:00	09/22/20 18:34	7440-39-3		
Beryllium	<b>0.00085J</b>	mg/L	0.0030	0.000046	1	09/18/20 11:00	09/22/20 18:34	7440-41-7		
Boron	<b>1.0</b>	mg/L	0.10	0.0052	1	09/18/20 11:00	09/22/20 18:34	7440-42-8		
Cadmium	ND	mg/L	0.0025	0.00012	1	09/18/20 11:00	09/22/20 18:34	7440-43-9		
Chromium	<b>0.0067J</b>	mg/L	0.010	0.00055	1	09/18/20 11:00	09/22/20 18:34	7440-47-3		
Cobalt	ND	mg/L	0.0050	0.00038	1	09/18/20 11:00	09/22/20 18:34	7440-48-4		
Lead	ND	mg/L	0.0050	0.000036	1	09/18/20 11:00	09/22/20 18:34	7439-92-1		
Lithium	<b>0.0023J</b>	mg/L	0.030	0.00081	1	09/18/20 11:00	09/22/20 18:34	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.00069	1	09/18/20 11:00	09/22/20 18:34	7439-98-7		
Selenium	<b>0.0040J</b>	mg/L	0.010	0.0016	1	09/18/20 11:00	09/22/20 18:34	7782-49-2		
Thallium	ND	mg/L	0.0010	0.00014	1	09/18/20 11:00	09/22/20 18:34	7440-28-0		
<b>7470 Mercury</b>		Analytical Method: EPA 7470A Preparation Method: EPA 7470A Pace Analytical Services - Peachtree Corners, GA								
Mercury	ND	mg/L	0.00050	0.000078	1	09/18/20 08:30	09/18/20 15:08	7439-97-6		
<b>2540C Total Dissolved Solids</b>		Analytical Method: SM 2450C-2011 Pace Analytical Services - Peachtree Corners, GA								
Total Dissolved Solids	<b>462</b>	mg/L	10.0	10.0	1		09/18/20 09:59			
<b>300.0 IC Anions 28 Days</b>		Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	<b>7.9</b>	mg/L	1.0	0.60	1		09/19/20 20:36	16887-00-6		
Fluoride	ND	mg/L	0.10	0.050	1		09/19/20 20:36	16984-48-8		
Sulfate	<b>251</b>	mg/L	5.0	2.5	5		09/20/20 06:59	14808-79-8		

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## ANALYTICAL RESULTS

Project: BRANCH E NETWORK

Pace Project No.: 92495964

Sample: BRGWC-38S		Lab ID: 92495964009		Collected: 09/17/20 11:26		Received: 09/18/20 10:15		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>Field Data</b>									
Analytical Method: Pace Analytical Services - Charlotte									
pH	4.17	Std. Units			1		09/29/20 12:27		
<b>6010D ATL ICP</b>									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A									
Pace Analytical Services - Peachtree Corners, GA									
Calcium	33.1	mg/L	1.0	0.070	1	09/24/20 14:17	09/25/20 19:26	7440-70-2	
<b>6020 MET ICPMS</b>									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Pace Analytical Services - Peachtree Corners, GA									
Antimony	ND	mg/L	0.0030	0.00028	1	09/21/20 14:30	09/22/20 20:22	7440-36-0	
Arsenic	0.0015J	mg/L	0.0050	0.00078	1	09/21/20 14:30	09/22/20 20:22	7440-38-2	
Barium	0.014	mg/L	0.010	0.00071	1	09/21/20 14:30	09/22/20 20:22	7440-39-3	
Beryllium	0.0073	mg/L	0.0030	0.000046	1	09/21/20 14:30	09/22/20 20:22	7440-41-7	
Boron	1.4	mg/L	0.10	0.0052	1	09/21/20 14:30	09/22/20 20:22	7440-42-8	
Cadmium	0.00050J	mg/L	0.0025	0.00012	1	09/21/20 14:30	09/22/20 20:22	7440-43-9	
Chromium	0.0042J	mg/L	0.010	0.00055	1	09/21/20 14:30	09/22/20 20:22	7440-47-3	
Cobalt	0.20	mg/L	0.0050	0.00038	1	09/21/20 14:30	09/22/20 20:22	7440-48-4	
Lead	0.00032J	mg/L	0.0050	0.000036	1	09/21/20 14:30	09/22/20 20:22	7439-92-1	
Lithium	0.020J	mg/L	0.030	0.00081	1	09/21/20 14:30	09/22/20 20:22	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00069	1	09/21/20 14:30	09/22/20 20:22	7439-98-7	
Selenium	0.029	mg/L	0.010	0.0016	1	09/21/20 14:30	09/22/20 20:22	7782-49-2	
Thallium	0.00017J	mg/L	0.0010	0.00014	1	09/21/20 14:30	09/22/20 20:22	7440-28-0	
<b>7470 Mercury</b>									
Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Pace Analytical Services - Peachtree Corners, GA									
Mercury	0.00011J	mg/L	0.00050	0.000078	1	09/22/20 11:15	09/23/20 10:43	7439-97-6	
<b>2540C Total Dissolved Solids</b>									
Analytical Method: SM 2450C-2011									
Pace Analytical Services - Peachtree Corners, GA									
Total Dissolved Solids	587	mg/L	10.0	10.0	1		09/21/20 16:29		
<b>300.0 IC Anions 28 Days</b>									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Chloride	6.1	mg/L	1.0	0.60	1		09/22/20 12:31	16887-00-6	
Fluoride	0.68	mg/L	0.10	0.050	1		09/22/20 12:31	16984-48-8	
Sulfate	356	mg/L	7.0	3.5	7		09/22/20 18:55	14808-79-8	

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### QUALITY CONTROL DATA

Project: BRANCH E NETWORK

Pace Project No.: 92495964

QC Batch: 568100 Analysis Method: EPA 6010D  
QC Batch Method: EPA 3010A Analysis Description: 6010D ATL  
Laboratory: Pace Analytical Services - Peachtree Corners, GA  
Associated Lab Samples: 92495964001, 92495964002, 92495964003, 92495964004, 92495964005, 92495964006, 92495964007

METHOD BLANK: 3010230 Matrix: Water  
Associated Lab Samples: 92495964001, 92495964002, 92495964003, 92495964004, 92495964005, 92495964006, 92495964007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.070	09/22/20 20:31	

LABORATORY CONTROL SAMPLE: 3010231

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	0.92J	92	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3010232 3010233

Parameter	Units	92495653006		3010232		3010233		% Rec Limits	RPD	Max RPD	Qual	
		MS Result	MS Spike Conc.	MSD Result	MSD Spike Conc.	MS Result	MSD Result					MS % Rec
Calcium	mg/L	43.1	1	1	1	44.0	43.4	83	22	75-125	1	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: BRANCH E NETWORK  
Pace Project No.: 92495964

QC Batch: 568747 Analysis Method: EPA 6010D  
QC Batch Method: EPA 3010A Analysis Description: 6010D ATL  
Laboratory: Pace Analytical Services - Peachtree Corners, GA  
Associated Lab Samples: 92495964008, 92495964009

METHOD BLANK: 3013294 Matrix: Water  
Associated Lab Samples: 92495964008, 92495964009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	1.0	0.070	09/25/20 18:16	

LABORATORY CONTROL SAMPLE: 3013295

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: 3013296 3013297

Parameter	Units	3013296		3013297		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92495904004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result						
Calcium	mg/L	75.8	1	1	74.9	75.7	-84	-9	75-125	1	20 M1

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### QUALITY CONTROL DATA

Project: BRANCH E NETWORK  
Pace Project No.: 92495964

QC Batch: 567397 Analysis Method: EPA 6020B  
QC Batch Method: EPA 3005A Analysis Description: 6020 MET  
Laboratory: Pace Analytical Services - Peachtree Corners, GA  
Associated Lab Samples: 92495964001, 92495964002, 92495964003, 92495964004, 92495964005, 92495964006, 92495964007, 92495964008

METHOD BLANK: 3006748 Matrix: Water  
Associated Lab Samples: 92495964001, 92495964002, 92495964003, 92495964004, 92495964005, 92495964006, 92495964007, 92495964008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	0.00033J	0.0030	0.00028	09/22/20 15:42	
Arsenic	mg/L	ND	0.0050	0.00078	09/22/20 15:42	
Barium	mg/L	ND	0.010	0.00071	09/22/20 15:42	
Beryllium	mg/L	ND	0.0030	0.000046	09/22/20 15:42	
Boron	mg/L	ND	0.10	0.0052	09/22/20 15:42	
Cadmium	mg/L	ND	0.0025	0.00012	09/22/20 15:42	
Chromium	mg/L	ND	0.010	0.00055	09/22/20 15:42	
Cobalt	mg/L	ND	0.0050	0.00038	09/22/20 15:42	
Lead	mg/L	ND	0.0050	0.000036	09/22/20 15:42	
Lithium	mg/L	ND	0.030	0.00081	09/22/20 15:42	
Molybdenum	mg/L	ND	0.010	0.00069	09/22/20 15:42	
Selenium	mg/L	ND	0.010	0.0016	09/22/20 15:42	
Thallium	mg/L	ND	0.0010	0.00014	09/22/20 15:42	

LABORATORY CONTROL SAMPLE: 3006749

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.11	106	80-120	
Arsenic	mg/L	0.1	0.099	99	80-120	
Barium	mg/L	0.1	0.10	100	80-120	
Beryllium	mg/L	0.1	0.11	106	80-120	
Boron	mg/L	1	1.1	112	80-120	
Cadmium	mg/L	0.1	0.10	100	80-120	
Chromium	mg/L	0.1	0.10	103	80-120	
Cobalt	mg/L	0.1	0.099	99	80-120	
Lead	mg/L	0.1	0.10	101	80-120	
Lithium	mg/L	0.1	0.10	105	80-120	
Molybdenum	mg/L	0.1	0.098	98	80-120	
Selenium	mg/L	0.1	0.10	101	80-120	
Thallium	mg/L	0.1	0.10	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3006750 3006751

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		Spike Conc.	Result	Spike Conc.	Result								
Antimony	mg/L	ND	0.1	0.1	0.10	0.11	104	106	75-125	2	20		

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### QUALITY CONTROL DATA

Project: BRANCH E NETWORK

Pace Project No.: 92495964

Parameter	Units	3006750		3006751		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	RPD	Qual
		92495870002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result								
Arsenic	mg/L	ND	0.1	0.1	0.098	0.098	98	98	75-125	0	20		
Barium	mg/L	0.019	0.1	0.1	0.12	0.12	97	99	75-125	2	20		
Beryllium	mg/L	ND	0.1	0.1	0.10	0.10	101	101	75-125	0	20		
Boron	mg/L	0.0053J	1	1	1.0	1.0	100	101	75-125	1	20		
Cadmium	mg/L	ND	0.1	0.1	0.098	0.096	98	96	75-125	1	20		
Chromium	mg/L	0.00086J	0.1	0.1	0.10	0.10	103	104	75-125	1	20		
Cobalt	mg/L	ND	0.1	0.1	0.098	0.098	98	98	75-125	0	20		
Lead	mg/L	ND	0.1	0.1	0.098	0.098	98	98	75-125	1	20		
Lithium	mg/L	ND	0.1	0.1	0.10	0.10	100	100	75-125	0	20		
Molybdenum	mg/L	ND	0.1	0.1	0.096	0.096	95	96	75-125	0	20		
Selenium	mg/L	ND	0.1	0.1	0.099	0.096	99	96	75-125	3	20		
Thallium	mg/L	ND	0.1	0.1	0.098	0.099	98	99	75-125	1	20		

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### QUALITY CONTROL DATA

Project: BRANCH E NETWORK  
Pace Project No.: 92495964

QC Batch: 567743 Analysis Method: EPA 6020B  
QC Batch Method: EPA 3005A Analysis Description: 6020 MET  
Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92495964009

METHOD BLANK: 3008588 Matrix: Water  
Associated Lab Samples: 92495964009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00028	09/22/20 17:54	
Arsenic	mg/L	ND	0.0050	0.00078	09/22/20 17:54	
Barium	mg/L	ND	0.010	0.00071	09/22/20 17:54	
Beryllium	mg/L	ND	0.0030	0.000046	09/22/20 17:54	
Boron	mg/L	ND	0.10	0.0052	09/22/20 17:54	
Cadmium	mg/L	ND	0.0025	0.00012	09/22/20 17:54	
Chromium	mg/L	ND	0.010	0.00055	09/22/20 17:54	
Cobalt	mg/L	ND	0.0050	0.00038	09/22/20 17:54	
Lead	mg/L	ND	0.0050	0.000036	09/22/20 17:54	
Lithium	mg/L	ND	0.030	0.00081	09/22/20 17:54	
Molybdenum	mg/L	ND	0.010	0.00069	09/22/20 17:54	
Selenium	mg/L	ND	0.010	0.0016	09/22/20 17:54	
Thallium	mg/L	ND	0.0010	0.00014	09/22/20 17:54	

LABORATORY CONTROL SAMPLE: 3008589

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	0.093	93	80-120	
Barium	mg/L	0.1	0.095	95	80-120	
Beryllium	mg/L	0.1	0.092	92	80-120	
Boron	mg/L	1	0.96	96	80-120	
Cadmium	mg/L	0.1	0.098	98	80-120	
Chromium	mg/L	0.1	0.10	104	80-120	
Cobalt	mg/L	0.1	0.099	99	80-120	
Lead	mg/L	0.1	0.099	99	80-120	
Lithium	mg/L	0.1	0.093	93	80-120	
Molybdenum	mg/L	0.1	0.10	100	80-120	
Selenium	mg/L	0.1	0.092	92	80-120	
Thallium	mg/L	0.1	0.099	99	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3008590 3008591

Parameter	Units	92496275001 Result	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Antimony	mg/L	ND	0.1	0.1	0.10	0.10	101	105	75-125	3	20	
Arsenic	mg/L	ND	0.1	0.1	0.099	0.10	96	98	75-125	3	20	

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### QUALITY CONTROL DATA

Project: BRANCH E NETWORK

Pace Project No.: 92495964

Parameter	Units	3008590		3008591		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92496275001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result								
Barium	mg/L	57.5 ug/L	0.1	0.1	0.15	0.16	94	101	75-125	4	20		
Beryllium	mg/L	ND	0.1	0.1	0.087	0.092	87	92	75-125	6	20		
Boron	mg/L	244 ug/L	1	1	1.1	1.2	89	98	75-125	8	20		
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	0.10	0.11	102	104	75-125	2	20		
Cobalt	mg/L	ND	0.1	0.1	0.095	0.099	95	99	75-125	4	20		
Lead	mg/L	ND	0.1	0.1	0.092	0.093	92	93	75-125	1	20		
Lithium	mg/L	ND	0.1	0.1	0.094	0.097	89	92	75-125	4	20		
Molybdenum	mg/L	ND	0.1	0.1	0.10	0.11	99	104	75-125	5	20		
Selenium	mg/L	ND	0.1	0.1	0.095	0.096	95	96	75-125	1	20		
Thallium	mg/L	ND	0.1	0.1	0.091	0.093	91	93	75-125	2	20		

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### QUALITY CONTROL DATA

Project: BRANCH E NETWORK  
Pace Project No.: 92495964

QC Batch:	567375	Analysis Method:	EPA 7470A
QC Batch Method:	EPA 7470A	Analysis Description:	7470 Mercury
		Laboratory:	Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92495964001, 92495964002, 92495964003, 92495964004, 92495964005, 92495964006, 92495964007, 92495964008

METHOD BLANK: 3006615 Matrix: Water  
Associated Lab Samples: 92495964001, 92495964002, 92495964003, 92495964004, 92495964005, 92495964006, 92495964007, 92495964008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00050	0.000078	09/18/20 14:02	

LABORATORY CONTROL SAMPLE: 3006616

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

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3006617 3006618

Parameter	Units	92495653002 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	0.0026	100	103	75-125	3	20	

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### QUALITY CONTROL DATA

Project: BRANCH E NETWORK

Pace Project No.: 92495964

QC Batch: 568007

Analysis Method: EPA 7470A

QC Batch Method: EPA 7470A

Analysis Description: 7470 Mercury

Laboratory: Pace Analytical Services - Peachtree Corners, GA

Associated Lab Samples: 92495964009

METHOD BLANK: 3009608

Matrix: Water

Associated Lab Samples: 92495964009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00050	0.000078	09/23/20 09:49	

LABORATORY CONTROL SAMPLE: 3009609

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

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3009610 3009611

Parameter	Units	3009610		3009611		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Mercury	mg/L	92496278002 ND	0.0025	0.0025	0.0024	0.0025	95	99	75-125	4	20

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### QUALITY CONTROL DATA

Project: BRANCH E NETWORK

Pace Project No.: 92495964

QC Batch: 567372 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: 92495964001, 92495964002, 92495964003, 92495964004, 92495964005, 92495964006, 92495964007, 92495964008

METHOD BLANK: 3006601 Matrix: Water  
 Associated Lab Samples: 92495964001, 92495964002, 92495964003, 92495964004, 92495964005, 92495964006, 92495964007, 92495964008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	09/18/20 09:58	

LABORATORY CONTROL SAMPLE: 3006602

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	387	97	84-108	

SAMPLE DUPLICATE: 3006603

Parameter	Units	92495653011 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	622	654	5	10	

SAMPLE DUPLICATE: 3006604

Parameter	Units	92495900008 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1220	1250	3	10	

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### QUALITY CONTROL DATA

Project: BRANCH E NETWORK

Pace Project No.: 92495964

QC Batch: 567882

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: 92495964009

METHOD BLANK: 3009251

Matrix: Water

Associated Lab Samples: 92495964009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	09/21/20 16:27	

LABORATORY CONTROL SAMPLE: 3009252

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	412	103	84-108	

SAMPLE DUPLICATE: 3009253

Parameter	Units	92495653008 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	2090	2130	2	10	

SAMPLE DUPLICATE: 3009254

Parameter	Units	92495870011 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	25.0	18.0	33	10	D6

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### QUALITY CONTROL DATA

Project: BRANCH E NETWORK  
Pace Project No.: 92495964

QC Batch: 567607 Analysis Method: EPA 300.0 Rev 2.1 1993  
QC Batch Method: EPA 300.0 Rev 2.1 1993 Analysis Description: 300.0 IC Anions  
Laboratory: Pace Analytical Services - Asheville  
Associated Lab Samples: 92495964001, 92495964002, 92495964003, 92495964004, 92495964005, 92495964006, 92495964007, 92495964008

METHOD BLANK: 3008004 Matrix: Water  
Associated Lab Samples: 92495964001, 92495964002, 92495964003, 92495964004, 92495964005, 92495964006, 92495964007, 92495964008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	09/19/20 15:23	
Fluoride	mg/L	ND	0.10	0.050	09/19/20 15:23	
Sulfate	mg/L	ND	1.0	0.50	09/19/20 15:23	

LABORATORY CONTROL SAMPLE: 3008005

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	52.3	105	90-110	
Fluoride	mg/L	2.5	2.7	106	90-110	
Sulfate	mg/L	50	52.5	105	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3008006 3008007

Parameter	Units	92495653007		3008007		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Chloride	mg/L	4.4	50	50	57.4	58.2	106	108	90-110	1	10
Fluoride	mg/L	0.13	2.5	2.5	2.8	2.8	107	109	90-110	1	10
Sulfate	mg/L	334	50	50	389	385	111	103	90-110	1	10 M6

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3008008 3008009

Parameter	Units	92495964005		3008009		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Chloride	mg/L	7.9	50	50	61.3	62.0	107	108	90-110	1	10
Fluoride	mg/L	ND	2.5	2.5	2.7	2.7	107	108	90-110	1	10
Sulfate	mg/L	256	50	50	298	299	85	87	90-110	0	10 M6

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### QUALITY CONTROL DATA

Project: BRANCH E NETWORK  
Pace Project No.: 92495964

QC Batch: 567943 Analysis Method: EPA 300.0 Rev 2.1 1993  
QC Batch Method: EPA 300.0 Rev 2.1 1993 Analysis Description: 300.0 IC Anions  
Laboratory: Pace Analytical Services - Asheville

Associated Lab Samples: 92495964009

METHOD BLANK: 3009484 Matrix: Water  
Associated Lab Samples: 92495964009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	09/22/20 07:03	
Fluoride	mg/L	ND	0.10	0.050	09/22/20 07:03	
Sulfate	mg/L	ND	1.0	0.50	09/22/20 07:03	

LABORATORY CONTROL SAMPLE: 3009485

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	54.8	110	90-110	
Fluoride	mg/L	2.5	2.7	110	90-110	
Sulfate	mg/L	50	54.9	110	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3009486 3009487

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92495894011 Result	Spike Conc.	Spike Conc.	Result								
Chloride	mg/L	105	50	50	152	155	94	101	90-110	2	10		
Fluoride	mg/L	0.10	2.5	2.5	2.7	2.7	103	104	90-110	1	10		
Sulfate	mg/L	209	50	50	255	261	92	103	90-110	2	10		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3009488 3009489

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92495900016 Result	Spike Conc.	Spike Conc.	Result								
Chloride	mg/L	ND	50	50	52.8	52.5	106	105	90-110	1	10		
Fluoride	mg/L	ND	2.5	2.5	2.6	2.6	105	104	90-110	1	10		
Sulfate	mg/L	ND	50	50	52.6	52.2	105	104	90-110	1	10		

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## QUALIFIERS

Project: BRANCH E NETWORK

Pace Project No.: 92495964

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### DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

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.

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

## REPORT OF LABORATORY ANALYSIS

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

### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: BRANCH E NETWORK  
Pace Project No.: 92495964

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92495964001	BRGWC-35S				
92495964002	BRGWC-34S				
92495964003	BRGWC-33S				
92495964004	BRGWC-17S				
92495964005	BRGWC-36S				
92495964006	BRGWC-37S				
92495964009	BRGWC-38S				
92495964001	BRGWC-35S	EPA 3010A	568100	EPA 6010D	568125
92495964002	BRGWC-34S	EPA 3010A	568100	EPA 6010D	568125
92495964003	BRGWC-33S	EPA 3010A	568100	EPA 6010D	568125
92495964004	BRGWC-17S	EPA 3010A	568100	EPA 6010D	568125
92495964005	BRGWC-36S	EPA 3010A	568100	EPA 6010D	568125
92495964006	BRGWC-37S	EPA 3010A	568100	EPA 6010D	568125
92495964007	FB-1	EPA 3010A	568100	EPA 6010D	568125
92495964008	DUP-2	EPA 3010A	568747	EPA 6010D	568813
92495964009	BRGWC-38S	EPA 3010A	568747	EPA 6010D	568813
92495964001	BRGWC-35S	EPA 3005A	567397	EPA 6020B	567512
92495964002	BRGWC-34S	EPA 3005A	567397	EPA 6020B	567512
92495964003	BRGWC-33S	EPA 3005A	567397	EPA 6020B	567512
92495964004	BRGWC-17S	EPA 3005A	567397	EPA 6020B	567512
92495964005	BRGWC-36S	EPA 3005A	567397	EPA 6020B	567512
92495964006	BRGWC-37S	EPA 3005A	567397	EPA 6020B	567512
92495964007	FB-1	EPA 3005A	567397	EPA 6020B	567512
92495964008	DUP-2	EPA 3005A	567397	EPA 6020B	567512
92495964009	BRGWC-38S	EPA 3005A	567743	EPA 6020B	567850
92495964001	BRGWC-35S	EPA 7470A	567375	EPA 7470A	567456
92495964002	BRGWC-34S	EPA 7470A	567375	EPA 7470A	567456
92495964003	BRGWC-33S	EPA 7470A	567375	EPA 7470A	567456
92495964004	BRGWC-17S	EPA 7470A	567375	EPA 7470A	567456
92495964005	BRGWC-36S	EPA 7470A	567375	EPA 7470A	567456
92495964006	BRGWC-37S	EPA 7470A	567375	EPA 7470A	567456
92495964007	FB-1	EPA 7470A	567375	EPA 7470A	567456
92495964008	DUP-2	EPA 7470A	567375	EPA 7470A	567456
92495964009	BRGWC-38S	EPA 7470A	568007	EPA 7470A	568119
92495964001	BRGWC-35S	SM 2450C-2011	567372		
92495964002	BRGWC-34S	SM 2450C-2011	567372		
92495964003	BRGWC-33S	SM 2450C-2011	567372		
92495964004	BRGWC-17S	SM 2450C-2011	567372		
92495964005	BRGWC-36S	SM 2450C-2011	567372		
92495964006	BRGWC-37S	SM 2450C-2011	567372		
92495964007	FB-1	SM 2450C-2011	567372		
92495964008	DUP-2	SM 2450C-2011	567372		
92495964009	BRGWC-38S	SM 2450C-2011	567882		
92495964001	BRGWC-35S	EPA 300.0 Rev 2.1 1993	567607		

### REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: BRANCH E NETWORK

Pace Project No.: 92495964

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92495964002	BRGWC-34S	EPA 300.0 Rev 2.1 1993	567607		
92495964003	BRGWC-33S	EPA 300.0 Rev 2.1 1993	567607		
92495964004	BRGWC-17S	EPA 300.0 Rev 2.1 1993	567607		
92495964005	BRGWC-36S	EPA 300.0 Rev 2.1 1993	567607		
92495964006	BRGWC-37S	EPA 300.0 Rev 2.1 1993	567607		
92495964007	FB-1	EPA 300.0 Rev 2.1 1993	567607		
92495964008	DUP-2	EPA 300.0 Rev 2.1 1993	567607		
92495964009	BRGWC-38S	EPA 300.0 Rev 2.1 1993	567943		

### REPORT OF LABORATORY ANALYSIS

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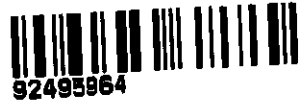


Sample Condition Upon Receipt

Client Name: G. Alower

WO#: 92495964

Courier:  Fed Ex  UPS  USPS  Client  Commercial  Pace  
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 11    Biological Tissue is Frozen: Yes No  
Temp should be above freezing to 6°C

Comments: \_\_\_\_\_  
Date and initials of person examining contents: 9/15/2008

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

Client Notification/ Resolution: \_\_\_\_\_      Field Data Required?    Y / N  
Person Contacted: \_\_\_\_\_      Date/Time: \_\_\_\_\_  
Comments/ Resolution: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

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

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



**CHAIN-OF-CUSTODY Analytical Request Document**

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

LAB USE ONLY- Affix Workorder/Login Label Here or List Pace Workorder Number or  
MTJL Log-in Number Here

**ALL SHADED AREAS are for LAB USE ONLY**

Company: Georgia Power - Coal Combustion Residuals  
 Address: 2480 Maner Road  
 Atlanta, GA 30339  
 Report To: Joju Abraham  
 Copy To: Golder  
 phone: (404) 506-7239  
 Email: jabraham@southernco.com  
 Project Name: Plant Branch E Network  
 Project # CCR 3rd Semi-Annual  
 State: Georgia City: Milledgeville Time Zone Collected:  
 [ ] PT [ ] MT [ ] CT [ ] ET  
 Billing Information:  
 Email To: sco@voices@southernco.com  
 Site Collection Info/Address: Plant Branch  
 Pace Profile#  
 Pace Project Manager:  
 Kevin.herring@paceabs.com  
 Turnaround Date Required:  
 Rush:  
 [ ] Same Day [ ] Next Day  
 [ ] 2 Day [ ] 3 Day [ ] 4 Day [ ] 5 Day  
 (Expedite Charges Apply)  
 Immediately Packed on Ice:  
 [X] Yes [ ] No  
 Field Filtered (if applicable):  
 [ ] Yes [ ] No  
 Analysis:

Container Preservative Type \*\*  
 1 2 3 4 5 6 7 8 9 10 11 12  
 \*\* Preservative Types: (1) nitric acid, (2) sulfuric acid, (3) hydrochloric acid, (4) sodium hydroxide, (5) zinc acetate,  
 (6) methanol, (7) sodium bisulfate, (8) sodium thiosulfate, (9) hexane, (A) ascorbic acid, (B) ammonium sulfate,  
 (C) ammonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other

Analyses				Lab Profile/Line:	
Metals 601.0/602.0/747D - see comments	TDS	Chloride/Fluoride/Sulfate	Radium 226, 228	Lab Sample Receipt Checklist:	
				Custody Seals Present/Intact Y N NA	
				Custody Signatures Present Y N NA	
				Collector Signature Present Y N NA	
				Bottles Intact Y N NA	
				Correct Bottles Y N NA	
				Sufficient Volume Y N NA	
				Samples Received on Ice Y N NA	
				VDA - Headspace Acceptable Y N NA	
				USDA Regulated Soils Y N NA	
Samples in Holding Time Y N NA					
Residual Chlorine Present Y N NA					
Cl Strips:					
Sample pH Acceptable Y N NA					
pH Strips:					
Sulfide Present Y N NA					
Lead Acetate Strips:					

\* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW),  
 Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Water (WT), Other (OT)

Customer Sample ID	Matrix *	Comp / Grab	Collected (or Composite Start)		Composite End		pH	# of Ctns	Metals 601.0/602.0/747D - see comments	TDS	Chloride/Fluoride/Sulfate	Radium 226, 228
			Date	Time	Date	Time						
BRGWC-355	GW	G	9-16-2020	0905			5.96	7	X	X	X	X
BRGWC-345	GW	G	9-16-2020	0959			5.81	5	X	X	X	X
BRGWC-335	GW	G	9-16-2020	1102			4.78	5	X	X	X	X
BRGWC-175	GW	G	9-16-2020	1230			6.26	5	X	X	X	X
BRGWC-365	GW	G	9-16-2020	1521			5.58	5	X	X	X	X
BRGWC-375	GW	G	9-16-2020	1609			5.84	5	X	X	X	X
FB-1	W	G	9-16-2020	1010			-	5	X	X	X	X
DUP-2	GW	G	9-16-2020	--			-	5	X	X	X	X

92495064  
 + 2 Radium

(Metals): As, B, Ba, Be, Ca, Cd, Co, Cr, Mo, Pb, Sb, Se, Li, Tl, Hg  
 Type of Ice Used: Wet Blue Dry None  
 Packing Material Used:  
 Radchem sample(s) screened (<500 cpm): Y N NA  
 SHORT HOLDS PRESENT (<72 hours): Y N N/A  
 Lab Tracking #:  
 Samples received via:  
 FEDEX UPS Client Courier Pace Courier

Relinquished by/Company: (Signature) *Joju Abraham* Date/Time: 9-17-2020/0800  
 Received by/Company: (Signature) *Charles Hinkle* Date/Time: 9/17/20 1000  
 Relinquished by/Company: (Signature) Date/Time: Received by/Company: (Signature) Date/Time:  
 Relinquished by/Company: (Signature) Date/Time: Received by/Company: (Signature) Date/Time:  
 MTJL LAB USE ONLY Table #:  
 Acctnum:  
 Template:  
 Prelogin:  
 PM:  
 PB:  
 Trip Blank Received: Y N NA  
 HCL MeOH TSP Other  
 Non Conformance(s): YES / NO Page: 1 of 1





**COMMONWEALTH of VIRGINIA**  
*Department of General Services*

*Division of Consolidated Laboratory Services*

*600 North 5th Street  
Richmond, Virginia 23219-3691  
(804) 648-4480  
FAX (804) 692-0416*

06/10/2020

Craig Tronzo  
Pace Analytical Services, LLC - Asheville NC  
2225 Riverside Drive  
Asheville NC 28804

VELAP ID: 460222

Dear Craig Tronzo:

The Division of Consolidated Laboratory Services (DCLS) has accredited Pace Analytical Services, LLC - Asheville NC pursuant to the provisions of 1VAC30-46 and The NELAC Institute (TNI) 2009 Standard. Certificate number 10807 and the corresponding Scope of Accreditation are enclosed. This certificate expires 06/14/2021. The certificate must be conspicuously displayed in the laboratory along with the associated Scope of Accreditation.

Please note that your laboratory is required to notify the Virginia Environmental Laboratory Accreditation Program (VELAP) in writing of any changes in key accreditation criteria within 30 calendar days of the change per 1VAC30-46-90 A. This requirement includes changes in ownership, location, key personnel, and major instrumentation.

To maintain accreditation, the laboratory must continue to comply with 1VAC30-46. This includes ongoing satisfactory proficiency testing. The method checklists used by VELAP in the on-site assessment process are available upon request as a supplement to internal audits.

Please direct all correspondences and questions regarding accreditation to your laboratory's lead assessor, Ila Meyer-Fritzsche, at [ila.meyer-fritzsche@dgs.virginia.gov](mailto:ila.meyer-fritzsche@dgs.virginia.gov) or (804) 648-4480 x306.

Sincerely yours,

Cathy Westerman  
Manager, Laboratory Certification Program

Enclosures  
cc: Felicia Grogan



**COMMONWEALTH OF VIRGINIA  
DEPARTMENT OF GENERAL SERVICES  
DIVISION OF CONSOLIDATED LABORATORY SERVICES**



**Certifies that**

**VA Laboratory ID#: 460222  
Pace Analytical Services, LLC - Asheville NC  
2225 Riverside Drive  
Asheville, NC 28804**

**Owner: PAS PARENT, LLC  
Operator: PACE ANALYTICAL SERVICES, LLC  
Responsible Official: FELICIA GROGAN**

Having met the requirements of 1 VAC 30-46 and  
having been found compliant with the 2009 TNI Standard approved by The NELAC Institute

is hereby approved as an

**Accredited Environmental Laboratory**

As more fully described in the attached Scope of Accreditation

**Effective Date: June 15, 2020**

**Expiration Date: June 14, 2021**

**Certificate # 10807**

A handwritten signature in black ink that reads "Denise M. Toney".

**Denise M. Toney, Ph.D., HCLD  
DGS Deputy Director for Laboratories**

Continued accreditation status depends on successful ongoing participation in the program.  
Certificate to be conspicuously displayed at the laboratory.  
Not valid unless accompanied by a valid Virginia Environmental Laboratory Accreditation Program (VELAP)  
Scope of Accreditation.  
Customers are urged to verify the laboratory's current accreditation status.



**Commonwealth of Virginia**  
 Department of General Services  
 Division of Consolidated Laboratory Services



**Scope of Accreditation**

VELAP Certificate No.: 10807

**Pace Analytical Services, LLC - Asheville NC**  
 2225 Riverside Drive  
 Asheville, NC 28804

**Virginia Laboratory ID: 460222**  
 Effective Date: June 15, 2020  
 Expiration Date: June 14, 2021

**DRINKING WATER**

<u>METHOD</u>	<u>ANALYTE</u>	<u>PRIMARY</u>
EPA 200.8 REV 5.4	COPPER	VA
EPA 353.2 REV 2 (AS LACHAT 10-107-04-1 A + C)	NITRATE AS N	VA
SM 2320 B-2011	ALKALINITY AS CaCO3	VA
SM 9223 COLISURE®	TOTAL COLIFORMS	VA

<u>METHOD</u>	<u>ANALYTE</u>	<u>PRIMARY</u>
EPA 200.8 REV 5.4	LEAD	VA
EPA 353.2 REV 2 (AS LACHAT 10-107-04-1-A)	NITRITE AS N	VA
SM 9223 COLISURE®	ESCHERICHIA COLI	VA

**NON-POTABLE WATER**

<u>METHOD</u>	<u>ANALYTE</u>	<u>PRIMARY</u>
EPA 1010	FLASHPOINT	VA
EPA 160.4	RESIDUE-VOLATILE	VA
EPA 180.1 REV 2	TURBIDITY	VA
EPA 200.7 REV 4.4	ANTIMONY	VA
EPA 200.7 REV 4.4	BARIUM	VA
EPA 200.7 REV 4.4	BORON	VA
EPA 200.7 REV 4.4	CALCIUM	VA
EPA 200.7 REV 4.4	COBALT	VA
EPA 200.7 REV 4.4	IRON	VA
EPA 200.7 REV 4.4	MAGNESIUM	VA
EPA 200.7 REV 4.4	MOLYBDENUM	VA
EPA 200.7 REV 4.4	POTASSIUM	VA
EPA 200.7 REV 4.4	SILICA AS SiO2	VA
EPA 200.7 REV 4.4	SODIUM	VA
EPA 200.7 REV 4.4	TIN	VA
EPA 200.7 REV 4.4	VANADIUM	VA
EPA 200.8 REV 5.4	ALUMINUM	VA
EPA 200.8 REV 5.4	ARSENIC	VA
EPA 200.8 REV 5.4	BERYLLIUM	VA
EPA 200.8 REV 5.4	CHROMIUM	VA
EPA 200.8 REV 5.4	COPPER	VA
EPA 200.8 REV 5.4	MANGANESE	VA
EPA 200.8 REV 5.4	NICKEL	VA
EPA 200.8 REV 5.4	SILVER	VA
EPA 200.8 REV 5.4	VANADIUM	VA
EPA 200.8 REV 5.4 - EXTENDED	BORON	VA
EPA 200.8 REV 5.4 - EXTENDED	IRON	VA
EPA 200.8 REV 5.4 - EXTENDED	POTASSIUM	VA

<u>METHOD</u>	<u>ANALYTE</u>	<u>PRIMARY</u>
EPA 120.1	CONDUCTIVITY	VA
EPA 1631 E	MERCURY	VA
EPA 200.7 REV 4.4	ALUMINUM	VA
EPA 200.7 REV 4.4	ARSENIC	VA
EPA 200.7 REV 4.4	BERYLLIUM	VA
EPA 200.7 REV 4.4	CADMIUM	VA
EPA 200.7 REV 4.4	CHROMIUM	VA
EPA 200.7 REV 4.4	COPPER	VA
EPA 200.7 REV 4.4	LEAD	VA
EPA 200.7 REV 4.4	MANGANESE	VA
EPA 200.7 REV 4.4	NICKEL	VA
EPA 200.7 REV 4.4	SELENIUM	VA
EPA 200.7 REV 4.4	SILVER	VA
EPA 200.7 REV 4.4	THALLIUM	VA
EPA 200.7 REV 4.4	TITANIUM	VA
EPA 200.7 REV 4.4	ZINC	VA
EPA 200.8 REV 5.4	ANTIMONY	VA
EPA 200.8 REV 5.4	BARIUM	VA
EPA 200.8 REV 5.4	CADMIUM	VA
EPA 200.8 REV 5.4	COBALT	VA
EPA 200.8 REV 5.4	LEAD	VA
EPA 200.8 REV 5.4	MOLYBDENUM	VA
EPA 200.8 REV 5.4	SELENIUM	VA
EPA 200.8 REV 5.4	THALLIUM	VA
EPA 200.8 REV 5.4	ZINC	VA
EPA 200.8 REV 5.4 - EXTENDED	CALCIUM	VA
EPA 200.8 REV 5.4 - EXTENDED	MAGNESIUM	VA
EPA 200.8 REV 5.4 - EXTENDED	SODIUM	VA

This Scope of Accreditation must accompany the Certificate issued by Virginia DCLS with the same Certificate Number indicated above.



**Commonwealth of Virginia**  
 Department of General Services  
 Division of Consolidated Laboratory Services



**Scope of Accreditation**

VELAP Certificate No.: 10807

**Pace Analytical Services, LLC - Asheville NC**  
 2225 Riverside Drive  
 Asheville, NC 28804

**Virginia Laboratory ID: 460222**  
 Effective Date: June 15, 2020  
 Expiration Date: June 14, 2021

**NON-POTABLE WATER**

<u>METHOD</u>	<u>ANALYTE</u>	<u>PRIMARY</u>
EPA 200.8 REV 5.4 - EXTENDED	TIN	VA
EPA 218.6 REV 3.3	CHROMIUM VI	VA
EPA 300.0 REV 2.1	BROMIDE	VA
EPA 300.0 REV 2.1	FLUORIDE	VA
EPA 300.0 REV 2.1	NITRATE/NITRITE	VA
EPA 300.0 REV 2.1	ORTHOPHOSPHATE AS P	VA
EPA 3005 A	PREP: ACID DIGESTION OF WATERS FOR TOTAL RECOVERABLE OR DISSOLVED METALS	VA
EPA 350.1 REV 2	AMMONIA AS N	VA
EPA 353.2 REV 2 (AS LACHAT 10-107-04-1 A + C)	NITRATE AS N	VA
EPA 353.2 REV 2 (AS LACHAT 10-107-04-1-A)	NITRITE AS N	VA
EPA 420.4 REV 1 (AS LACHAT 10-210-00-1-X)	TOTAL PHENOLICS	VA
EPA 6010 D	ANTIMONY	VA
EPA 6010 D	BARIUM	VA
EPA 6010 D	BORON	VA
EPA 6010 D	CALCIUM	VA
EPA 6010 D	COBALT	VA
EPA 6010 D	IRON	VA
EPA 6010 D	LITHIUM	VA
EPA 6010 D	MANGANESE	VA
EPA 6010 D	NICKEL	VA
EPA 6010 D	SELENIUM	VA
EPA 6010 D	SILVER	VA
EPA 6010 D	STRONTIUM	VA
EPA 6010 D	TIN	VA
EPA 6010 D	VANADIUM	VA
EPA 6010 D - EXTENDED	SILICON	VA
EPA 6020 B	ANTIMONY	VA
EPA 6020 B	BARIUM	VA
EPA 6020 B	CADMIUM	VA
EPA 6020 B	CHROMIUM	VA
EPA 6020 B	COPPER	VA
EPA 6020 B	LEAD	VA
EPA 6020 B	MANGANESE	VA

<u>METHOD</u>	<u>ANALYTE</u>	<u>PRIMARY</u>
EPA 200.8 REV 5.4 - EXTENDED	TITANIUM	VA
EPA 245.1 REV 3	MERCURY	VA
EPA 300.0 REV 2.1	CHLORIDE	VA
EPA 300.0 REV 2.1	NITRATE AS N	VA
EPA 300.0 REV 2.1	NITRITE AS N	VA
EPA 300.0 REV 2.1	SULFATE	VA
EPA 3010 A	PREP: ACID DIGESTION OF AQUEOUS SAMPLES AND EXTRACTS FOR TOTAL METALS	VA
EPA 351.2 REV 2 (AS LACHAT 10-107-06-2-D)	KJELDAHL NITROGEN - TOTAL (TKN)	VA
EPA 353.2 REV 2 (AS LACHAT 10-107-04-1-A)	NITRATE/NITRITE	VA
EPA 365.1 REV 2 (AS LACHAT 10-115-01-1-E)	PHOSPHORUS, TOTAL	VA
EPA 6010 D	ALUMINUM	VA
EPA 6010 D	ARSENIC	VA
EPA 6010 D	BERYLLIUM	VA
EPA 6010 D	CADMIUM	VA
EPA 6010 D	CHROMIUM	VA
EPA 6010 D	COPPER	VA
EPA 6010 D	LEAD	VA
EPA 6010 D	MAGNESIUM	VA
EPA 6010 D	MOLYBDENUM	VA
EPA 6010 D	POTASSIUM	VA
EPA 6010 D	SILICA AS SIO2	VA
EPA 6010 D	SODIUM	VA
EPA 6010 D	THALLIUM	VA
EPA 6010 D	TITANIUM	VA
EPA 6010 D	ZINC	VA
EPA 6020 B	ALUMINUM	VA
EPA 6020 B	ARSENIC	VA
EPA 6020 B	BERYLLIUM	VA
EPA 6020 B	CALCIUM	VA
EPA 6020 B	COBALT	VA
EPA 6020 B	IRON	VA
EPA 6020 B	MAGNESIUM	VA
EPA 6020 B	MOLYBDENUM	VA

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 Department of General Services  
 Division of Consolidated Laboratory Services



**Scope of Accreditation**

VELAP Certificate No.: 10807

**Pace Analytical Services, LLC - Asheville NC**  
 2225 Riverside Drive  
 Asheville, NC 28804

**Virginia Laboratory ID: 460222**  
 Effective Date: June 15, 2020  
 Expiration Date: June 14, 2021

**NON-POTABLE WATER**

<u>METHOD</u>	<u>ANALYTE</u>	<u>PRIMARY</u>
EPA 6020 B	NICKEL	VA
EPA 6020 B	SELENIUM	VA
EPA 6020 B	SODIUM	VA
EPA 6020 B	TIN	VA
EPA 6020 B	ZINC	VA
EPA 6020 B - EXTENDED	BORON	VA
EPA 6020 B - EXTENDED	STRONTIUM	VA
EPA 6020 B - EXTENDED	URANIUM	VA
EPA 7470 A	MERCURY	VA
EPA 9012 B	TOTAL CYANIDE	VA
EPA 9056 A	BROMIDE	VA
EPA 9056 A	FLUORIDE	VA
EPA 9056 A	NITRITE AS N	VA
EPA 9056 A	SULFATE	VA
EPA 9060 A	TOTAL ORGANIC CARBON (TOC)	VA
LACHAT QUIKCHEM 10-204-00-1-X	CYANIDE	VA
SM 2340 B-2011	TOTAL HARDNESS AS CaCO3	VA
SM 2540 C-2011	RESIDUE-FILTERABLE (TDS)	VA
SM 2540 F-2011	RESIDUE-SETTLABLE	VA
SM 4500-CL <sup>-</sup> E-2011	CHLORIDE	VA
SM 4500-P E-2011	ORTHOPHOSPHATE AS P	VA
SM 5210 B-2011	BIOCHEMICAL OXYGEN DEMAND (BOD)	VA
SM 5220 D-2011	CHEMICAL OXYGEN DEMAND (COD)	VA

<u>METHOD</u>	<u>ANALYTE</u>	<u>PRIMARY</u>
EPA 6020 B	POTASSIUM	VA
EPA 6020 B	SILVER	VA
EPA 6020 B	THALLIUM	VA
EPA 6020 B	VANADIUM	VA
EPA 6020 B - EXTENDED	BISMUTH	VA
EPA 6020 B - EXTENDED	LITHIUM	VA
EPA 6020 B - EXTENDED	TITANIUM	VA
EPA 7196 A	CHROMIUM VI	VA
EPA 9010 C	PREP: CYANIDE DISTILLATION	VA
EPA 9040 C	PH	VA
EPA 9056 A	CHLORIDE	VA
EPA 9056 A	NITRATE AS N	VA
EPA 9056 A	ORTHOPHOSPHATE AS P	VA
EPA 9056 A - EXTENDED	NITRATE/NITRITE	VA
EPA 9095 B	FREE LIQUID	VA
SM 2320 B-2011	ALKALINITY AS CaCO3	VA
SM 2540 B-2011	RESIDUE-TOTAL (TS)	VA
SM 2540 D-2011	RESIDUE-NONFILTERABLE (TSS)	VA
SM 3500-CR B-2011	CHROMIUM VI	VA
SM 4500-CN <sup>-</sup> E-2011	CYANIDE	VA
SM 4500-S2 <sup>-</sup> D-2011	SULFIDE	VA
SM 5210 B-2011	CARBONACEOUS BOD (CBOD)	VA
SM 5310 B-2011	TOTAL ORGANIC CARBON (TOC)	VA

**SOLID AND CHEMICAL MATERIALS**

<u>METHOD</u>	<u>ANALYTE</u>	<u>PRIMARY</u>
EPA 1010 A	FLASHPOINT	VA
EPA 1312	PREP: SYNTHETIC PRECIPITATION LEACHING PROCEDURE	VA
EPA 3050 B	PREP: ACID DIGESTION OF SEDIMENTS, SLUDGES, AND SOILS	VA
EPA 6010 D	ANTIMONY	VA
EPA 6010 D	BARIUM	VA
EPA 6010 D	BORON	VA
EPA 6010 D	CALCIUM	VA
EPA 6010 D	COBALT	VA
EPA 6010 D	IRON	VA

<u>METHOD</u>	<u>ANALYTE</u>	<u>PRIMARY</u>
EPA 1311	PREP: TOXICITY CHARACTERISTIC LEACHING PROCEDURE	VA
EPA 3010 A	PREP: ACID DIGESTION OF AQUEOUS SAMPLES AND EXTRACTS FOR TOTAL METALS	VA
EPA 6010 D	ALUMINUM	VA
EPA 6010 D	ARSENIC	VA
EPA 6010 D	BERYLLIUM	VA
EPA 6010 D	CADMIUM	VA
EPA 6010 D	CHROMIUM	VA
EPA 6010 D	COPPER	VA
EPA 6010 D	LEAD	VA

This Scope of Accreditation must accompany the Certificate issued by Virginia DCLS with the same Certificate Number indicated above.





**Commonwealth of Virginia**  
 Department of General Services  
 Division of Consolidated Laboratory Services



**Scope of Accreditation**

VELAP Certificate No.: 10807

**Pace Analytical Services, LLC - Asheville NC**  
 2225 Riverside Drive  
 Asheville, NC 28804

**Virginia Laboratory ID: 460222**  
 Effective Date: June 15, 2020  
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**SOLID AND CHEMICAL MATERIALS**

<u>METHOD</u>	<u>ANALYTE</u>	<u>PRIMARY</u>
EPA 6010 D	MAGNESIUM	VA
EPA 6010 D	MOLYBDENUM	VA
EPA 6010 D	POTASSIUM	VA
EPA 6010 D	SILVER	VA
EPA 6010 D	STRONTIUM	VA
EPA 6010 D	TITANIUM	VA
EPA 6010 D	ZINC	VA
EPA 7471 B	MERCURY	VA
EPA 9060	TOTAL ORGANIC CARBON (TOC)	VA
EPA 9065	TOTAL PHENOLICS	VA

<u>METHOD</u>	<u>ANALYTE</u>	<u>PRIMARY</u>
EPA 6010 D	MANGANESE	VA
EPA 6010 D	NICKEL	VA
EPA 6010 D	SELENIUM	VA
EPA 6010 D	SODIUM	VA
EPA 6010 D	THALLIUM	VA
EPA 6010 D	VANADIUM	VA
EPA 6010 D - EXTENDED	SILICON	VA
EPA 9045 D	PH	VA
EPA 9060 A	TOTAL ORGANIC CARBON (TOC)	VA
EPA 9095 B	FREE LIQUID	VA



State of Florida  
Department of Health, Bureau of Public Health Laboratories  
This is to certify that



E87315

PACE ANALYTICAL SERVICES, LLC- ATLANTA GA  
110 TECHNOLOGY PARKWAY  
PEACHTREE CORNERS, GA 30092

has complied with Florida Administrative Code 64E-1,  
for the examination of environmental samples in the following categories

DRINKING WATER - MICROBIOLOGY, DRINKING WATER - PRIMARY INORGANIC CONTAMINANTS, DRINKING WATER - SECONDARY INORGANIC CONTAMINANTS, NON-POTABLE WATER - GENERAL CHEMISTRY, NON-POTABLE WATER - METALS, NON-POTABLE WATER - MICROBIOLOGY, SOLID AND CHEMICAL MATERIALS - GENERAL CHEMISTRY, SOLID AND CHEMICAL MATERIALS - METALS, SOLID AND CHEMICAL MATERIALS - MICROBIOLOGY

Continued certification is contingent upon successful on-going compliance with the NELAC Standards and FAC Rule 64E-1 regulations. Specific methods and analytes certified are cited on the Laboratory Scope of Accreditation for this laboratory and are on file at the Bureau of Public Health Laboratories, P. O. Box 210, Jacksonville, Florida 32231. Clients and customers are urged to verify with this agency the laboratory's certification status in Florida for particular methods and analytes.

Date Issued: October 06, 2020      Expiration Date: June 30, 2021



A handwritten signature in blue ink, appearing to read "P. Lewandowski".

Patty A. Lewandowski, MBA, MT(ASCP)  
Chief Bureau of Public Health Laboratories  
DH Form 1697, 7/04

NON-TRANSFERABLE E87315-49-10/06/2020  
Supersedes all previously issued certificates



**Laboratory Scope of Accreditation**

**Attachment to Certificate #: E87315-49, expiration date June 30, 2021. This listing of accredited analytes should be used only when associated with a valid certificate.**

State Laboratory ID: **E87315**

EPA Lab Code: **GA00051**

**(770) 734-4200**

**E87315**

**Pace Analytical Services, LLC- Atlanta GA**

**110 Technology Parkway**

**Peachtree Corners, GA 30092**

Matrix: **Drinking Water**

Analyte	Method/Tech	Category	Certification Type	Effective Date
Color	SM 2120 B	Secondary Inorganic Contaminants	NELAP	4/10/2002
Escherichia coli	SM 9223 B	Microbiology	NELAP	4/10/2002
Escherichia coli	SM 9223 B /QUANTI-TRAY	Microbiology	NELAP	11/4/2010
Heterotrophic plate count	SIMPLATE	Microbiology	NELAP	5/29/2012
Nitrate	EPA 353.2	Primary Inorganic Contaminants	NELAP	4/17/2020
Nitrite	EPA 353.2	Primary Inorganic Contaminants	NELAP	4/17/2020
Orthophosphate as P	SM 4500-P E	Primary Inorganic Contaminants	NELAP	4/10/2002
pH	SM 4500-H+-B	Primary Inorganic Contaminants,Secondary Inorganic Contaminants	NELAP	4/10/2002
Residual free chlorine	SM 4500-Cl G	Primary Inorganic Contaminants	NELAP	11/4/2010
Total coliforms	SM 9223 B	Microbiology	NELAP	4/10/2002
Total coliforms	SM 9223 B /QUANTI-TRAY	Microbiology	NELAP	11/4/2010
Total nitrate-nitrite	EPA 353.2	Primary Inorganic Contaminants	NELAP	4/17/2020
Total residual chlorine	SM 4500-Cl G	Primary Inorganic Contaminants	NELAP	11/4/2010
Turbidity	EPA 180.1	Secondary Inorganic Contaminants	NELAP	4/10/2002



**Laboratory Scope of Accreditation**

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**110 Technology Parkway**

**Peachtree Corners, GA 30092**

Matrix: **Non-Potable Water**

Analyte	Method/Tech	Category	Certification Type	Effective Date
Aluminum	EPA 200.7	Metals	NELAP	4/10/2002
Aluminum	EPA 200.8	Metals	NELAP	8/30/2004
Aluminum	EPA 6010	Metals	NELAP	7/1/2003
Aluminum	EPA 6020	Metals	NELAP	8/30/2004
Amenable cyanide	EPA 9010/9014	General Chemistry	NELAP	7/1/2003
Amenable cyanide	SM 4500-CN- G	General Chemistry	NELAP	10/15/2007
Antimony	EPA 200.7	Metals	NELAP	4/10/2002
Antimony	EPA 200.8	Metals	NELAP	8/30/2004
Antimony	EPA 6010	Metals	NELAP	7/1/2003
Antimony	EPA 6020	Metals	NELAP	8/30/2004
Arsenic	EPA 200.7	Metals	NELAP	4/10/2002
Arsenic	EPA 200.8	Metals	NELAP	8/30/2004
Arsenic	EPA 6010	Metals	NELAP	4/10/2002
Arsenic	EPA 6020	Metals	NELAP	8/30/2004
Barium	EPA 200.7	Metals	NELAP	4/10/2002
Barium	EPA 200.8	Metals	NELAP	8/30/2004
Barium	EPA 6010	Metals	NELAP	7/1/2003
Barium	EPA 6020	Metals	NELAP	8/30/2004
Beryllium	EPA 200.7	Metals	NELAP	4/10/2002
Beryllium	EPA 200.8	Metals	NELAP	8/30/2004
Beryllium	EPA 6010	Metals	NELAP	7/1/2003
Beryllium	EPA 6020	Metals	NELAP	8/30/2004
Biochemical oxygen demand	SM 5210 B	General Chemistry	NELAP	4/10/2002
Boron	EPA 200.7	Metals	NELAP	4/10/2002
Boron	EPA 200.8	Metals	NELAP	11/6/2014
Boron	EPA 6010	Metals	NELAP	7/1/2003
Boron	EPA 6020	Metals	NELAP	8/30/2004
Cadmium	EPA 200.7	Metals	NELAP	4/10/2002
Cadmium	EPA 200.8	Metals	NELAP	8/30/2004
Cadmium	EPA 6010	Metals	NELAP	4/10/2002
Cadmium	EPA 6020	Metals	NELAP	8/30/2004
Calcium	EPA 200.7	Metals	NELAP	4/10/2002
Calcium	EPA 200.8	Metals	NELAP	11/6/2014
Calcium	EPA 6010	Metals	NELAP	7/1/2003
Calcium	EPA 6020	Metals	NELAP	8/30/2004
Carbonaceous BOD (CBOD)	SM 5210 B	General Chemistry	NELAP	4/10/2002

**Clients and Customers are urged to verify the laboratory's current certification status with the Environmental Laboratory Certification Program.**

**Issue Date: 10/6/2020**

**Expiration Date: 6/30/2021**



**Laboratory Scope of Accreditation**

**Attachment to Certificate #: E87315-49, expiration date June 30, 2021. This listing of accredited analytes should be used only when associated with a valid certificate.**

State Laboratory ID: **E87315**

EPA Lab Code: **GA00051**

**(770) 734-4200**

**E87315**

**Pace Analytical Services, LLC- Atlanta GA**

**110 Technology Parkway**

**Peachtree Corners, GA 30092**

Matrix: **Non-Potable Water**

Analyte	Method/Tech	Category	Certification Type	Effective Date
Chromium	EPA 200.7	Metals	NELAP	4/10/2002
Chromium	EPA 200.8	Metals	NELAP	8/30/2004
Chromium	EPA 6010	Metals	NELAP	7/1/2003
Chromium	EPA 6020	Metals	NELAP	8/30/2004
Chromium VI	SM 3500-Cr B (20th/21st/22nd Ed.)/UV-VIS	General Chemistry	NELAP	7/28/2009
Cobalt	EPA 200.7	Metals	NELAP	4/10/2002
Cobalt	EPA 200.8	Metals	NELAP	8/30/2004
Cobalt	EPA 6010	Metals	NELAP	7/1/2003
Cobalt	EPA 6020	Metals	NELAP	8/30/2004
Color	SM 2120 B	General Chemistry	NELAP	4/10/2002
Copper	EPA 200.7	Metals	NELAP	4/10/2002
Copper	EPA 200.8	Metals	NELAP	8/30/2004
Copper	EPA 6010	Metals	NELAP	4/10/2002
Copper	EPA 6020	Metals	NELAP	8/30/2004
Corrosivity (pH)	EPA 9040	General Chemistry	NELAP	7/1/2003
Cyanide	SM 4500-CN E	General Chemistry	NELAP	10/15/2007
Escherichia coli	SM 9223 B /QUANTI-TRAY	Microbiology	NELAP	11/4/2010
Fecal coliforms	COLILERT®-18 (Fecal Coliforms)	Microbiology	NELAP	11/6/2014
Fecal coliforms	SM 9222 D	Microbiology	NELAP	2/21/2002
Hardness	SM 2340 B	General Chemistry	NELAP	7/28/2009
Hardness (calc.)	EPA 200.7	Metals	NELAP	6/6/2002
Heterotrophic plate count	SIMPLATE	Microbiology	NELAP	5/29/2012
Iron	EPA 200.7	Metals	NELAP	4/10/2002
Iron	EPA 200.8	Metals	NELAP	11/6/2014
Iron	EPA 6010	Metals	NELAP	7/1/2003
Iron	EPA 6020	Metals	NELAP	8/30/2004
Iron	SM 3500-Fe D (18th/19th Ed.)/UV-VIS	General Chemistry	NELAP	2/5/2002
Iron-(II) (Ferrous Iron)	SM 3500-Fe B (20th/21st Ed.)/UV-VIS	General Chemistry	NELAP	7/28/2009
Lead	EPA 200.7	Metals	NELAP	4/10/2002
Lead	EPA 200.8	Metals	NELAP	8/30/2004
Lead	EPA 6010	Metals	NELAP	4/10/2002
Lead	EPA 6020	Metals	NELAP	8/30/2004
Lithium	EPA 200.8	Metals	NELAP	10/6/2016

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**Issue Date: 10/6/2020**

**Expiration Date: 6/30/2021**



**Laboratory Scope of Accreditation**

**Attachment to Certificate #: E87315-49, expiration date June 30, 2021. This listing of accredited analytes should be used only when associated with a valid certificate.**

State Laboratory ID: **E87315**

EPA Lab Code: **GA00051**

**(770) 734-4200**

**E87315**

**Pace Analytical Services, LLC- Atlanta GA**

**110 Technology Parkway**

**Peachtree Corners, GA 30092**

Matrix: **Non-Potable Water**

Analyte	Method/Tech	Category	Certification Type	Effective Date
Lithium	EPA 6020	Metals	NELAP	10/6/2016
Magnesium	EPA 200.7	Metals	NELAP	4/10/2002
Magnesium	EPA 200.8	Metals	NELAP	11/6/2014
Magnesium	EPA 6010	Metals	NELAP	7/1/2003
Magnesium	EPA 6020	Metals	NELAP	8/30/2004
Manganese	EPA 200.7	Metals	NELAP	4/10/2002
Manganese	EPA 200.8	Metals	NELAP	8/30/2004
Manganese	EPA 6010	Metals	NELAP	7/1/2003
Manganese	EPA 6020	Metals	NELAP	8/30/2004
Mercury	EPA 245.1	Metals	NELAP	4/10/2002
Mercury	EPA 7470	Metals	NELAP	4/10/2002
Molybdenum	EPA 200.7	Metals	NELAP	4/10/2002
Molybdenum	EPA 200.8	Metals	NELAP	8/30/2004
Molybdenum	EPA 6010	Metals	NELAP	4/10/2002
Molybdenum	EPA 6020	Metals	NELAP	8/30/2004
Nickel	EPA 200.7	Metals	NELAP	4/10/2002
Nickel	EPA 200.8	Metals	NELAP	8/30/2004
Nickel	EPA 6010	Metals	NELAP	4/10/2002
Nickel	EPA 6020	Metals	NELAP	8/30/2004
Nitrate as N	EPA 353.2	General Chemistry	NELAP	4/17/2020
Nitrate-nitrite	EPA 353.2	General Chemistry	NELAP	4/17/2020
Nitrite as N	EPA 353.2	General Chemistry	NELAP	4/17/2020
Orthophosphate as P	SM 4500-P E	General Chemistry	NELAP	4/10/2002
Oxygen, dissolved	ASTM D888-09C	General Chemistry	NELAP	11/6/2014
Oxygen, dissolved	SM 4500-O G	General Chemistry	NELAP	4/10/2002
pH	EPA 9040	General Chemistry	NELAP	7/1/2003
pH	SM 4500-H+-B	General Chemistry	NELAP	10/15/2007
Phosphorus, total	EPA 200.7	Metals	NELAP	9/27/2002
Phosphorus, total	EPA 6010	Metals	NELAP	7/1/2003
Potassium	EPA 200.7	Metals	NELAP	4/10/2002
Potassium	EPA 200.8	Metals	NELAP	11/6/2014
Potassium	EPA 6010	Metals	NELAP	4/10/2002
Potassium	EPA 6020	Metals	NELAP	8/30/2004
Residual free chlorine	SM 4500-Cl G	General Chemistry	NELAP	11/4/2010
Residue-filterable (TDS)	SM 2540 C	General Chemistry	NELAP	10/15/2007
Residue-nonfilterable (TSS)	SM 2540 D	General Chemistry	NELAP	10/15/2007

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**(770) 734-4200**

**E87315**

**Pace Analytical Services, LLC- Atlanta GA**

**110 Technology Parkway**

**Peachtree Corners, GA 30092**

Matrix: **Non-Potable Water**

Analyte	Method/Tech	Category	Certification Type	Effective Date
Residue-settleable	SM 2540 F	General Chemistry	NELAP	10/15/2007
Residue-total	SM 2540 B	General Chemistry	NELAP	10/15/2007
Residue-volatile	SM 2540 E	General Chemistry	NELAP	10/6/2016
Selenium	EPA 200.7	Metals	NELAP	4/10/2002
Selenium	EPA 200.8	Metals	NELAP	8/30/2004
Selenium	EPA 6010	Metals	NELAP	4/10/2002
Selenium	EPA 6020	Metals	NELAP	8/30/2004
Silicon	EPA 200.7	Metals	NELAP	4/10/2002
Silicon	EPA 6010	Metals	NELAP	7/1/2003
Silver	EPA 200.7	Metals	NELAP	4/10/2002
Silver	EPA 200.8	Metals	NELAP	8/30/2004
Silver	EPA 6010	Metals	NELAP	7/1/2003
Silver	EPA 6020	Metals	NELAP	8/30/2004
Sodium	EPA 200.7	Metals	NELAP	4/10/2002
Sodium	EPA 200.8	Metals	NELAP	11/6/2014
Sodium	EPA 6010	Metals	NELAP	7/1/2003
Sodium	EPA 6020	Metals	NELAP	8/30/2004
Strontium	EPA 200.7	Metals	NELAP	9/27/2002
Strontium	EPA 6010	Metals	NELAP	7/1/2003
Strontium	EPA 6020	Metals	NELAP	8/30/2004
Thallium	EPA 200.7	Metals	NELAP	4/10/2002
Thallium	EPA 200.8	Metals	NELAP	8/30/2004
Thallium	EPA 6010	Metals	NELAP	7/1/2003
Thallium	EPA 6020	Metals	NELAP	8/30/2004
Tin	EPA 200.7	Metals	NELAP	4/10/2002
Tin	EPA 200.8	Metals	NELAP	11/6/2014
Tin	EPA 6010	Metals	NELAP	7/1/2003
Tin	EPA 6020	Metals	NELAP	8/30/2004
Titanium	EPA 200.7	Metals	NELAP	4/10/2002
Titanium	EPA 200.8	Metals	NELAP	11/6/2014
Titanium	EPA 6010	Metals	NELAP	7/1/2003
Titanium	EPA 6020	Metals	NELAP	8/30/2004
Total coliforms	SM 9223 B /QUANTI-TRAY	Microbiology	NELAP	11/4/2010
Total cyanide	EPA 9010/9014	General Chemistry	NELAP	7/1/2003
Total residual chlorine	SM 4500-Cl G	General Chemistry	NELAP	11/4/2010
Total, fixed, and volatile residue	SM 2540 G	General Chemistry	NELAP	9/27/2002

**Clients and Customers are urged to verify the laboratory's current certification status with the Environmental Laboratory Certification Program.**

**Issue Date: 10/6/2020**

**Expiration Date: 6/30/2021**



**Laboratory Scope of Accreditation**

**Attachment to Certificate #: E87315-49, expiration date June 30, 2021. This listing of accredited analytes should be used only when associated with a valid certificate.**

State Laboratory ID: **E87315**

EPA Lab Code: **GA00051**

**(770) 734-4200**

**E87315**

**Pace Analytical Services, LLC- Atlanta GA**

**110 Technology Parkway**

**Peachtree Corners, GA 30092**

Matrix: **Non-Potable Water**

Analyte	Method/Tech	Category	Certification Type	Effective Date
Turbidity	EPA 180.1	General Chemistry	NELAP	4/10/2002
Vanadium	EPA 200.7	Metals	NELAP	4/10/2002
Vanadium	EPA 200.8	Metals	NELAP	8/30/2004
Vanadium	EPA 6010	Metals	NELAP	7/1/2003
Vanadium	EPA 6020	Metals	NELAP	8/30/2004
Zinc	EPA 200.7	Metals	NELAP	4/10/2002
Zinc	EPA 200.8	Metals	NELAP	8/30/2004
Zinc	EPA 6010	Metals	NELAP	4/10/2002
Zinc	EPA 6020	Metals	NELAP	8/30/2004





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**E87315**

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**110 Technology Parkway**

**Peachtree Corners, GA 30092**

Matrix: **Solid and Chemical Materials**

Analyte	Method/Tech	Category	Certification Type	Effective Date
Aluminum	EPA 6010	Metals	NELAP	4/10/2002
Antimony	EPA 6010	Metals	NELAP	4/10/2002
Arsenic	EPA 6010	Metals	NELAP	4/10/2002
Barium	EPA 6010	Metals	NELAP	4/10/2002
Beryllium	EPA 6010	Metals	NELAP	4/10/2002
Boron	EPA 6010	Metals	NELAP	4/10/2002
Cadmium	EPA 6010	Metals	NELAP	4/10/2002
Calcium	EPA 6010	Metals	NELAP	4/10/2002
Chromium	EPA 6010	Metals	NELAP	4/10/2002
Cobalt	EPA 6010	Metals	NELAP	4/10/2002
Copper	EPA 6010	Metals	NELAP	4/10/2002
Fecal coliforms	SM 9222 D	Microbiology	NELAP	7/28/2009
Fixed Residue	SM 2540 G-2011	General Chemistry	NELAP	10/1/2020
Iron	EPA 6010	Metals	NELAP	4/10/2002
Lead	EPA 6010	Metals	NELAP	4/10/2002
Magnesium	EPA 6010	Metals	NELAP	4/10/2002
Manganese	EPA 6010	Metals	NELAP	4/10/2002
Mercury	EPA 7471	Metals	NELAP	4/10/2002
Molybdenum	EPA 6010	Metals	NELAP	4/10/2002
Nickel	EPA 6010	Metals	NELAP	4/10/2002
pH	EPA 9045	General Chemistry	NELAP	4/10/2002
Phosphorus, total	EPA 6010	Metals	NELAP	4/10/2002
Potassium	EPA 6010	Metals	NELAP	4/10/2002
Residue-total	SM 2540 G-2011	General Chemistry	NELAP	10/1/2020
Residue-volatile	SM 2540 G-2011	General Chemistry	NELAP	10/1/2020
Selenium	EPA 6010	Metals	NELAP	4/10/2002
Silicon	EPA 6010	Metals	NELAP	4/10/2002
Silver	EPA 6010	Metals	NELAP	4/10/2002
Sodium	EPA 6010	Metals	NELAP	7/9/2002
Strontium	EPA 6010	Metals	NELAP	4/10/2002
Thallium	EPA 6010	Metals	NELAP	4/10/2002
Tin	EPA 6010	Metals	NELAP	4/10/2002
Titanium	EPA 6010	Metals	NELAP	9/27/2002
Toxicity Characteristic Leaching Procedure (TCLP)	EPA 1311	General Chemistry	NELAP	4/10/2002
Vanadium	EPA 6010	Metals	NELAP	4/10/2002
Zinc	EPA 6010	Metals	NELAP	4/10/2002

**Clients and Customers are urged to verify the laboratory's current certification status with the Environmental Laboratory Certification Program.**

**Issue Date: 10/6/2020**

**Expiration Date: 6/30/2021**



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*Laboratory Scope of Accreditation*

**APPENDIX A**

# **FIELD DATA FORMS**

Product Name: Low-Flow System

Date: 2020-08-18 10:48:15

Project Information:

Operator Name Travis Martinez  
Company Name Golder  
Project Name Plant Branch  
Site Name Plant Branch  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 613229  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type QED Well Wizard  
Tubing Type polyethylene  
Tubing Diameter 0.17 in  
Tubing Length 61.96 ft

Pump placement from TOC 61.96 ft

Well Information:

Well ID BRGWA-2I  
Well diameter 2 in  
Well Total Depth 66.96 ft  
Screen Length 10 ft  
Depth to Water 14.51 ft

Pumping Information:

Final Pumping Rate 140 mL/min  
Total System Volume 0.5698708 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 12.72 in  
Total Volume Pumped 3.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 0
Last 5	10:25:28	300.03	21.69	6.45	177.10	6.49	15.95	0.42	90.36
Last 5	10:30:28	600.02	21.74	6.51	174.19	3.55	16.17	0.21	91.14
Last 5	10:35:28	900.02	21.91	6.59	173.69	2.21	16.18	0.15	87.65
Last 5	10:40:28	1200.03	22.31	6.60	174.62	1.50	16.09	0.12	86.54
Last 5	10:45:31	1503.03	22.54	6.59	174.99	1.68	15.57	0.11	85.00
Variance 0			0.17	0.08	-0.50			-0.06	-3.49
Variance 1			0.40	0.01	0.93			-0.02	-1.11
Variance 2			0.23	-0.01	0.37			-0.01	-1.54

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2020-08-18 11:39:38

Project Information:

Operator Name Travis Martinez  
Company Name Golder  
Project Name Plant Branch  
Site Name Plant Branch  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 613229  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type QED Well Wizard  
Tubing Type polyethylene  
Tubing Diameter 0.17 in  
Tubing Length 42.39 ft

Pump placement from TOC 42.39 ft

Well Information:

Well ID BRGWA-2S  
Well diameter 2 in  
Well Total Depth 47.39 ft  
Screen Length 10 ft  
Depth to Water 14.67 ft

Pumping Information:

Final Pumping Rate 200 mL/min  
Total System Volume 0.4825216 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 1.44 in  
Total Volume Pumped 5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 0
Last 5	11:17:52	300.03	23.54	6.19	62.00	3.09	14.73	1.37	44.07
Last 5	11:22:52	600.02	22.46	6.05	62.42	2.25	14.76	0.73	43.15
Last 5	11:27:52	900.03	22.18	6.06	62.43	2.07	14.76	0.39	39.67
Last 5	11:32:52	1200.03	22.00	6.02	62.21	1.26	14.79	0.31	40.09
Last 5	11:37:52	1500.03	21.63	6.06	61.63	0.78	14.79	0.28	39.15
Variance 0			-0.29	0.01	0.01			-0.34	-3.47
Variance 1			-0.18	-0.04	-0.22			-0.09	0.42
Variance 2			-0.36	0.04	-0.58			-0.03	-0.95

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2020-08-18 09:43:36

Project Information:

Operator Name Travis Martinez  
Company Name Golder  
Project Name Plant Branch  
Site Name Plant Branch  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 613229  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type QED Well Wizard  
Tubing Type polyethylene  
Tubing Diameter 0.17 in  
Tubing Length 58.82 ft

Pump placement from TOC 58.82 ft

Well Information:

Well ID BRGWA-5I  
Well diameter 2 in  
Well Total Depth 63.82 ft  
Screen Length 10 ft  
Depth to Water 11.24 ft

Pumping Information:

Final Pumping Rate 200 mL/min  
Total System Volume 0.5558556 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 1.92 in  
Total Volume Pumped 5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 0
Last 5	09:20:01	300.06	21.08	6.30	148.13	1.31	11.40	5.14	72.08
Last 5	09:25:01	600.02	21.10	6.24	147.10	1.90	11.40	5.89	68.32
Last 5	09:30:01	900.02	20.75	6.29	146.37	1.40	11.40	5.36	64.03
Last 5	09:35:01	1200.03	21.03	6.29	146.58	0.81	11.40	5.20	63.14
Last 5	09:40:01	1500.03	20.88	6.29	146.46	0.39	11.40	5.14	62.33
Variance 0			-0.35	0.05	-0.73			-0.53	-4.29
Variance 1			0.28	-0.01	0.21			-0.16	-0.90
Variance 2			-0.15	0.01	-0.12			-0.06	-0.81

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2020-08-18 10:14:55

Project Information:

Operator Name A. McClure  
Company Name Golder  
Project Name Plant Branch  
Site Name Plant Branch  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 642531  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type QED Well Wizard  
Tubing Type polyethylene  
Tubing Diameter .17 in  
Tubing Length 38 ft

Pump placement from TOC 38 ft

Well Information:

Well ID BRGWA-5S  
Well diameter 2 in  
Well Total Depth 43.01 ft  
Screen Length 10 ft  
Depth to Water 11.31 ft

Pumping Information:

Final Pumping Rate 200 mL/min  
Total System Volume 0.271 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 1.44 in  
Total Volume Pumped 10 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 0
Last 5	09:52:47	1800.02	21.63	6.40	158.28	4.91	11.43	2.38	65.53
Last 5	09:57:47	2100.02	21.99	6.39	133.54	5.37	11.43	2.48	62.66
Last 5	10:02:48	2401.02	22.23	6.38	159.50	5.68	11.43	2.20	61.68
Last 5	10:07:48	2701.02	21.90	6.40	159.53	5.12	11.43	2.29	60.21
Last 5	10:12:48	3001.02	21.89	6.41	159.64	4.36	11.43	2.22	61.14
Variance 0			0.23	-0.01	25.96			-0.28	-0.98
Variance 1			-0.33	0.02	0.03			0.09	-1.47
Variance 2			-0.01	0.00	0.10			-0.07	0.94

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2020-08-18 12:51:27

Project Information:

Operator Name Travis Martinez  
Company Name Golder  
Project Name Plant Branch  
Site Name Plant Branch  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 613229  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type QED Well Wizard  
Tubing Type polyethylene  
Tubing Diameter 0.17 in  
Tubing Length 47.90 ft

Pump placement from TOC 47.90 ft

Well Information:

Well ID BRGWA-6S  
Well diameter 2 in  
Well Total Depth 52.90 ft  
Screen Length 10 ft  
Depth to Water 24.67 ft

Pumping Information:

Final Pumping Rate 200 mL/min  
Total System Volume 0.5071151 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 7.2 in  
Total Volume Pumped 5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 0
Last 5	12:28:27	300.06	21.68	6.32	56.31	2.84	25.21	6.95	47.49
Last 5	12:33:27	600.02	21.48	6.33	55.13	1.97	25.30	7.00	48.68
Last 5	12:38:27	900.03	21.66	6.30	55.01	2.68	25.27	6.88	51.37
Last 5	12:43:28	1201.03	21.73	6.35	54.96	2.73	25.28	6.84	51.09
Last 5	12:48:29	1502.03	21.82	6.33	55.30	3.15	25.27	6.75	52.98
Variance 0			0.18	-0.03	-0.12			-0.12	2.69
Variance 1			0.07	0.04	-0.06			-0.05	-0.28
Variance 2			0.09	-0.02	0.34			-0.09	1.89

Notes

Grab Samples



Product Name: Low-Flow System

Date: 2020-08-19 16:28:50

Project Information:

Operator Name Travis Martinez  
Company Name Golder  
Project Name Plant Branch  
Site Name Plant Branch  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 613229  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Alexis  
Tubing Type polyethylene  
Tubing Diameter 0.17 in  
Tubing Length 7.88 ft

Pump placement from TOC 7.88 ft

Well Information:

Well ID BRGWC-17S  
Well diameter 2 in  
Well Total Depth 9.88 ft  
Screen Length 5 ft  
Depth to Water 6.22 ft

Pumping Information:

Final Pumping Rate 150 mL/min  
Total System Volume 0.1340986 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 9.36 in  
Total Volume Pumped 7.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 0
Last 5	16:07:13	1800.02	22.94	6.23	485.48	0.09	6.78	1.34	85.17
Last 5	16:12:13	2100.02	22.97	6.23	483.34	0.09	6.82	1.30	84.80
Last 5	16:17:13	2400.02	22.80	6.23	484.53	0.07	6.90	1.48	84.57
Last 5	16:22:13	2700.03	22.89	6.24	483.65	0.22	6.96	1.42	84.05
Last 5	16:27:13	3000.02	22.80	6.24	483.23	0.35	7.00	1.37	83.90
Variance 0			-0.17	-0.00	1.19			0.18	-0.23
Variance 1			0.09	0.01	-0.88			-0.06	-0.51
Variance 2			-0.09	0.00	-0.42			-0.05	-0.15

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2020-08-19 09:48:02

Project Information:

Operator Name Travis Martinez  
Company Name Golder  
Project Name Plant Branch  
Site Name Plant Branch  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 613229  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type QED Well Wizard  
Tubing Type polyethylene  
Tubing Diameter 0.17 in  
Tubing Length 26.66 ft

Pump placement from TOC 26.66 ft

Well Information:

Well ID BRGWC-33S  
Well diameter 2 in  
Well Total Depth 31.66 ft  
Screen Length 10 ft  
Depth to Water 8.80 ft

Pumping Information:

Final Pumping Rate 250 mL/min  
Total System Volume 0.4123119 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 0.6 in  
Total Volume Pumped 6.25 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 0
Last 5	09:26:45	300.07	21.11	5.12	398.27	2.37	8.85	0.13	118.55
Last 5	09:31:45	600.02	20.68	4.88	392.26	1.38	8.85	0.05	114.90
Last 5	09:36:45	900.02	20.61	4.79	392.62	1.78	8.85	0.04	114.65
Last 5	09:41:45	1200.02	20.60	4.80	392.25	0.66	8.85	0.03	113.20
Last 5	09:46:45	1500.02	20.60	4.78	392.38	0.38	8.85	0.03	112.61
Variance 0			-0.07	-0.09	0.35			-0.01	-0.25
Variance 1			-0.01	0.01	-0.37			-0.01	-1.45
Variance 2			-0.00	-0.02	0.13			-0.00	-0.58

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2020-08-19 10:36:00

Project Information:

Operator Name Travis Martinez  
Company Name Golder  
Project Name Plant Branch  
Site Name Plant Branch  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 613229  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type QED Well Wizard  
Tubing Type polyethylene  
Tubing Diameter 0.17 in  
Tubing Length 47.64 ft

Pump placement from TOC 47.64 ft

Well Information:

Well ID BRGWC-34S  
Well diameter 2 in  
Well Total Depth 52.64 ft  
Screen Length 10 ft  
Depth to Water 2.74 ft

Pumping Information:

Final Pumping Rate 360 mL/min  
Total System Volume 0.5059546 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 0.6 in  
Total Volume Pumped 9 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 0
Last 5	10:14:26	300.03	21.51	5.69	680.28	1.40	2.79	0.18	94.34
Last 5	10:19:26	600.02	21.23	5.75	676.34	0.79	2.79	0.08	94.38
Last 5	10:24:26	900.02	21.11	5.79	676.72	0.27	2.79	0.05	92.82
Last 5	10:29:26	1200.02	21.13	5.79	672.35	0.37	2.79	0.03	93.12
Last 5	10:34:26	1500.01	21.19	5.78	668.59	0.18	2.79	0.02	92.89
Variance 0			-0.13	0.04	0.38			-0.03	-1.56
Variance 1			0.02	-0.00	-4.36			-0.02	0.30
Variance 2			0.07	-0.00	-3.77			-0.01	-0.23

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2020-08-19 11:26:39

Project Information:

Operator Name Travis Martinez  
Company Name Golder  
Project Name Plant Branch  
Site Name Plant Branch  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 613229  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type QED Well Wizard  
Tubing Type polyethylene  
Tubing Diameter 0.17 in  
Tubing Length 30.34 ft

Pump placement from TOC 30.34 ft

Well Information:

Well ID BRGWC-35S  
Well diameter 2 in  
Well Total Depth 35.34 ft  
Screen Length 10 ft  
Depth to Water 2.17 ft

Pumping Information:

Final Pumping Rate 325 mL/min  
Total System Volume 0.4287374 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 0.96 in  
Total Volume Pumped 8.125 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 0
Last 5	11:04:40	300.05	20.70	5.94	674.76	4.17	2.21	0.18	87.85
Last 5	11:09:40	600.02	20.57	5.96	675.20	2.85	2.24	0.08	86.87
Last 5	11:14:40	900.02	20.48	5.96	679.73	1.18	2.25	0.05	87.63
Last 5	11:19:40	1200.02	20.35	5.93	684.85	0.22	2.25	0.04	88.87
Last 5	11:24:40	1500.02	20.25	5.97	681.95	0.38	2.25	0.03	87.68
Variance 0			-0.09	-0.00	4.53			-0.03	0.76
Variance 1			-0.13	-0.02	5.12			-0.01	1.23
Variance 2			-0.10	0.03	-2.90			-0.01	-1.18

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2020-08-19 15:00:43

Project Information:

Operator Name Travis Martinez  
Company Name Golder  
Project Name Plant Branch  
Site Name Plant Branch  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 613229  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type Alexis  
Tubing Type polyethylene  
Tubing Diameter 0.17 in  
Tubing Length 29.02 ft

Pump placement from TOC 29.02 ft

Well Information:

Well ID BRGWC-36S  
Well diameter 2 in  
Well Total Depth 34.02 ft  
Screen Length 10 ft  
Depth to Water 2.31 ft

Pumping Information:

Final Pumping Rate 250 mL/min  
Total System Volume 0.2418457 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 1.44 in  
Total Volume Pumped 6.25 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 0
Last 5	14:38:45	300.03	30.07	5.46	614.94	1.45	2.43	2.29	115.11
Last 5	14:43:45	600.02	25.43	5.51	626.55	2.20	2.43	1.64	111.43
Last 5	14:48:45	900.02	25.09	5.52	628.15	1.39	2.43	1.68	109.31
Last 5	14:53:45	1200.02	24.96	5.52	626.91	4.83	2.43	1.78	108.40
Last 5	14:58:46	1501.02	24.63	5.53	624.01	1.68	2.43	1.78	107.65
Variance 0			-0.34	0.01	1.60			0.04	-2.12
Variance 1			-0.13	-0.00	-1.23			0.10	-0.90
Variance 2			-0.33	0.01	-2.91			-0.00	-0.76

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2020-08-19 12:24:26

Project Information:

Operator Name Travis Martinez  
Company Name Golder  
Project Name Plant Branch  
Site Name Plant Branch  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 613229  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type QED Well Wizard  
Tubing Type polyethylene  
Tubing Diameter 0.17 in  
Tubing Length 63.73 ft

Pump placement from TOC 63.73 ft

Well Information:

Well ID BRGWC-37S  
Well diameter 2 in  
Well Total Depth 68.73 ft  
Screen Length 10 ft  
Depth to Water 47.89 ft

Pumping Information:

Final Pumping Rate 140 mL/min  
Total System Volume 0.5777711 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 6.48 in  
Total Volume Pumped 3.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 0
Last 5	12:02:54	300.06	22.94	5.87	55.13	0.14	48.37	8.00	75.16
Last 5	12:07:54	600.02	22.33	5.65	55.04	0.15	48.45	8.35	76.66
Last 5	12:12:54	900.02	22.44	5.65	54.75	0.14	48.42	8.30	74.96
Last 5	12:17:54	1200.02	22.71	5.68	54.36	0.06	48.43	8.28	76.05
Last 5	12:22:54	1500.06	22.63	5.66	54.01	0.11	48.43	8.19	78.97
Variance 0			0.11	0.01	-0.28			-0.05	-1.70
Variance 1			0.27	0.03	-0.40			-0.02	1.09
Variance 2			-0.08	-0.02	-0.35			-0.09	2.92

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2020-08-19 13:28:47

Project Information:

Operator Name Travis Martinez  
Company Name Golder  
Project Name Plant Branch  
Site Name Plant Branch  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 613229  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type QED Well Wizard  
Tubing Type polyethylene  
Tubing Diameter 0.17 in  
Tubing Length 38.66 ft

Pump placement from TOC 38.66 ft

Well Information:

Well ID BRGWC-38S  
Well diameter 2 in  
Well Total Depth 43.66 ft  
Screen Length 10 ft  
Depth to Water 21.16 ft

Pumping Information:

Final Pumping Rate 120 mL/min  
Total System Volume 0.465873 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 7.44 in  
Total Volume Pumped 3.6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 0
Last 5	13:05:34	600.02	22.18	4.10	809.48	0.75	21.59	1.88	116.40
Last 5	13:10:34	900.02	22.13	4.11	807.18	0.59	21.81	1.58	115.65
Last 5	13:15:34	1200.02	22.21	4.11	810.57	0.44	21.84	1.40	116.00
Last 5	13:20:34	1500.02	22.27	4.11	809.07	0.23	21.79	1.29	116.54
Last 5	13:25:34	1800.02	22.58	4.12	808.49	0.03	21.78	1.25	116.35
Variance 0			0.07	-0.00	3.39			-0.18	0.35
Variance 1			0.06	0.00	-1.50			-0.11	0.55
Variance 2			0.31	0.01	-0.58			-0.05	-0.19

Notes

Grab Samples

# Low-Flow Test Report:

**Test Date / Time:** 9/15/2020 3:22:54 PM

**Project:** Plant Branch

**Operator Name:** Travis Martinez

<b>Location Name: BRGWA-2I</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 56.96 ft</b> <b>Total Depth: 66.96 ft</b> <b>Initial Depth to Water: 14.34 ft</b>	<b>Pump Type: QED Well Wizard</b> <b>Tubing Type: Polyethylene</b> <b>Pump Intake From TOC: 61.96 ft</b> <b>Estimated Total Volume Pumped: 6300 ml</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 140 ml/min</b> <b>Final Draw Down: 1.79 ft</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 728550</b>
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## Test Notes:

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 5	+/- 5 %	+/- 10 %	+/- 5	+/- 25	+/- 0.3	
9/15/2020 3:22 PM	00:00	6.69 pH	24.76 °C	178.06 µS/cm	6.06 mg/L	1.38 NTU	67.0 mV	14.34 ft	180.00 ml/min
9/15/2020 3:27 PM	05:00	5.81 pH	20.36 °C	172.76 µS/cm	1.06 mg/L	1.89 NTU	29.3 mV	15.49 ft	140.00 ml/min
9/15/2020 3:32 PM	10:00	6.11 pH	20.34 °C	174.53 µS/cm	0.50 mg/L	2.85 NTU	35.2 mV	15.74 ft	140.00 ml/min
9/15/2020 3:37 PM	15:00	6.24 pH	20.17 °C	175.35 µS/cm	0.32 mg/L	2.77 NTU	38.8 mV	15.88 ft	140.00 ml/min
9/15/2020 3:42 PM	20:00	6.38 pH	20.04 °C	176.45 µS/cm	0.22 mg/L	2.32 NTU	35.0 mV	16.04 ft	140.00 ml/min
9/15/2020 3:47 PM	25:00	6.45 pH	20.05 °C	177.37 µS/cm	0.16 mg/L	0.73 NTU	26.5 mV	16.13 ft	140.00 ml/min
9/15/2020 3:52 PM	30:00	6.51 pH	20.09 °C	178.42 µS/cm	0.13 mg/L	0.79 NTU	14.0 mV	16.15 ft	140.00 ml/min
9/15/2020 3:57 PM	35:00	6.58 pH	19.95 °C	185.19 µS/cm	0.10 mg/L	0.67 NTU	5.1 mV	16.13 ft	140.00 ml/min
9/15/2020 4:02 PM	40:00	6.63 pH	19.77 °C	191.33 µS/cm	0.09 mg/L	0.67 NTU	-17.3 mV	16.13 ft	140.00 ml/min
9/15/2020 4:07 PM	45:00	6.64 pH	19.89 °C	188.68 µS/cm	0.07 mg/L	0.91 NTU	2.2 mV	16.13 ft	140.00 ml/min

## Samples

Sample ID:	Description:
BRGWA-2I	



# Low-Flow Test Report:

Test Date / Time: 9/15/2020 2:30:26 PM

Project: Plant Branch

Operator Name: Travis Martinez

<b>Location Name: BRGWA-2S</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 37.39 ft</b> <b>Total Depth: 47.39 ft</b> <b>Initial Depth to Water: 14.53 ft</b>	<b>Pump Type: QED Well Wizard</b> <b>Tubing Type: Polyethylene</b> <b>Pump Intake From TOC: 42.39 ft</b> <b>Estimated Total Volume Pumped: 6801.667 ml</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 220 ml/min</b> <b>Final Draw Down: 0.12 ft</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 728550</b>
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## Test Notes:

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 5	+/- 5 %	+/- 10 %	+/- 5	+/- 25	+/- 0.3	
9/15/2020 2:30 PM	00:00	5.25 pH	21.39 °C	66.23 µS/cm	2.74 mg/L	0.46 NTU	68.8 mV	14.53 ft	220.00 ml/min
9/15/2020 2:35 PM	05:00	5.62 pH	18.97 °C	67.73 µS/cm	1.38 mg/L	1.35 NTU	53.7 mV	14.74 ft	220.00 ml/min
9/15/2020 2:40 PM	10:00	5.91 pH	18.80 °C	67.11 µS/cm	0.77 mg/L	0.83 NTU	50.2 mV	14.65 ft	220.00 ml/min
9/15/2020 2:45 PM	15:00	5.99 pH	18.88 °C	66.37 µS/cm	0.57 mg/L	0.91 NTU	48.5 mV	14.65 ft	220.00 ml/min
9/15/2020 2:51 PM	20:55	6.02 pH	19.04 °C	66.51 µS/cm	0.64 mg/L	0.79 NTU	49.3 mV	14.65 ft	220.00 ml/min
9/15/2020 2:56 PM	25:55	5.97 pH	19.06 °C	65.86 µS/cm	0.55 mg/L	0.80 NTU	49.8 mV	14.65 ft	220.00 ml/min
9/15/2020 3:01 PM	30:55	6.01 pH	19.11 °C	65.68 µS/cm	0.58 mg/L	0.52 NTU	47.3 mV	14.65 ft	220.00 ml/min

## Samples

Sample ID:	Description:
BRGWA-2S	

# Low-Flow Test Report:

Test Date / Time: 9/15/2020 1:42:18 PM

Project: Plant Branch

Operator Name: Travis Martinez

<b>Location Name: BRGWA-5I</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 53.82 ft</b> <b>Total Depth: 63.82 ft</b> <b>Initial Depth to Water: 11.63 ft</b>	<b>Pump Type: QED Well Wizard</b> <b>Tubing Type: Polyethylene</b> <b>Pump Intake From TOC: 58.82 ft</b> <b>Estimated Total Volume Pumped: 4600 ml</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 230 ml/min</b> <b>Final Draw Down: 0.11 ft</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 728550</b>
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## Test Notes:

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 5	+/- 5 %	+/- 10 %	+/- 5	+/- 25	+/- 0.3	
9/15/2020 1:42 PM	00:00	5.50 pH	20.57 °C	157.12 µS/cm	2.89 mg/L	1.30 NTU	59.7 mV	11.63 ft	230.00 ml/min
9/15/2020 1:47 PM	05:00	5.91 pH	19.41 °C	158.48 µS/cm	5.32 mg/L	0.86 NTU	54.4 mV	11.77 ft	230.00 ml/min
9/15/2020 1:52 PM	10:00	6.19 pH	19.19 °C	158.79 µS/cm	5.52 mg/L	0.50 NTU	53.9 mV	11.74 ft	230.00 ml/min
9/15/2020 1:57 PM	15:00	6.23 pH	19.19 °C	159.27 µS/cm	5.57 mg/L	0.61 NTU	55.0 mV	11.74 ft	230.00 ml/min
9/15/2020 2:02 PM	20:00	6.27 pH	19.14 °C	159.23 µS/cm	5.53 mg/L	0.62 NTU	54.6 mV	11.74 ft	230.00 ml/min

## Samples

Sample ID:	Description:
BRGWA-5I	

# Low-Flow Test Report:

Test Date / Time: 9/15/2020 12:59:46 PM

Project: Plant Branch

Operator Name: Travis Martinez

<b>Location Name: BRGWA-5S</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 33.01 ft</b> <b>Total Depth: 43.01 ft</b> <b>Initial Depth to Water: 11.68 ft</b>	<b>Pump Type: QED Well Wizard</b> <b>Tubing Type: Polyethylene</b> <b>Pump Intake From TOC: 38.01 m</b> <b>Estimated Total Volume Pumped: 4600 ml</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 230 ml/min</b> <b>Final Draw Down: 0.06 ft</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 728550</b>
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## Test Notes:

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 5	+/- 5 %	+/- 10 %	+/- 5	+/- 25	+/- 0.3	
9/15/2020 12:59 PM	00:00	6.18 pH	19.64 °C	163.98 µS/cm	1.97 mg/L	3.99 NTU	44.7 mV	11.68 ft	230.00 ml/min
9/15/2020 1:04 PM	05:00	6.19 pH	19.34 °C	159.39 µS/cm	1.84 mg/L	2.92 NTU	45.4 mV	11.85 ft	230.00 ml/min
9/15/2020 1:09 PM	10:00	6.24 pH	19.32 °C	165.69 µS/cm	1.77 mg/L	1.90 NTU	42.4 mV	11.74 ft	230.00 ml/min
9/15/2020 1:14 PM	15:00	6.24 pH	19.32 °C	165.18 µS/cm	1.80 mg/L	3.13 NTU	43.1 mV	11.74 ft	230.00 ml/min
9/15/2020 1:19 PM	20:00	6.25 pH	19.31 °C	164.34 µS/cm	1.78 mg/L	2.44 NTU	43.0 mV	11.74 ft	230.00 ml/min

## Samples

Sample ID:	Description:
BRGWA-5S	

Product Name: Low-Flow System

Date: 2020-09-15 09:46:57

Project Information:

Operator Name A. McClure  
Company Name Golder Associates  
Project Name Plant Branch  
Site Name Plant Branch  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 465016  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type QED Well Wizard  
Tubing Type polyethylene  
Tubing Diameter 0.170 in  
Tubing Length 47.9 ft

Pump placement from TOC 47.9 ft

Well Information:

Well ID BRGWA-6S  
Well diameter 2 in  
Well Total Depth 52.90 ft  
Screen Length 10 ft  
Depth to Water 25.23 ft

Pumping Information:

Final Pumping Rate 300 mL/min  
Total System Volume 0.4937809 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 10.92 in  
Total Volume Pumped 7.5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	09:24:50	300.09	19.59	6.00	57.62	2.58	26.09	6.48	87.49
Last 5	09:29:49	600.00	19.63	6.30	56.99	0.89	26.09	6.64	73.88
Last 5	09:34:49	900.00	19.54	6.37	57.07	1.21	26.11	6.66	69.33
Last 5	09:39:49	1199.99	19.51	6.41	57.30	1.51	26.12	6.61	67.03
Last 5	09:44:52	1502.98	19.54	6.43	57.69	1.27	26.14	6.56	65.62
Variance 0			-0.09	0.07	0.09			0.02	-4.55
Variance 1			-0.03	0.04	0.22			-0.05	-2.30
Variance 2			0.03	0.02	0.39			-0.05	-1.41

Notes

Grab Samples

# Low-Flow Test Report:

Test Date / Time: 9/16/2020 11:56:05 AM

Project: Plant Branch

Operator Name: Travis Martinez

<b>Location Name: BRGWC-17S</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 5 ft</b> <b>Top of Screen: 3.15 ft</b> <b>Total Depth: 8.15 ft</b> <b>Initial Depth to Water: 6.2 ft</b>	<b>Pump Type: Alexis Peri Pump</b> <b>Tubing Type: Polyethylene</b> <b>Pump Intake From TOC: 7.5 ft</b> <b>Estimated Total Volume Pumped: 3850 ml</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 110 ml/min</b> <b>Final Draw Down: 0.48 ft</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 728550</b>
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## Test Notes:

Three well volumes purged

## Weather Conditions:

Raining

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 5	+/- 5 %	+/- 10 %	+/- 5	+/- 25	+/- 0.3	
9/16/2020 11:56 AM	00:00	6.17 pH	19.18 °C	495.55 µS/cm	2.27 mg/L	10.85 NTU	58.5 mV	6.20 ft	110.00 ml/min
9/16/2020 12:01 PM	05:00	6.25 pH	19.80 °C	494.58 µS/cm	1.71 mg/L	7.01 NTU	69.8 mV	6.46 ft	110.00 ml/min
9/16/2020 12:06 PM	10:00	6.26 pH	19.86 °C	493.91 µS/cm	1.64 mg/L	4.62 NTU	50.0 mV	6.54 ft	110.00 ml/min
9/16/2020 12:11 PM	15:00	6.26 pH	19.94 °C	494.01 µS/cm	1.61 mg/L	3.33 NTU	48.4 mV	6.58 ft	110.00 ml/min
9/16/2020 12:16 PM	20:00	6.26 pH	20.00 °C	493.46 µS/cm	1.59 mg/L	2.50 NTU	47.1 mV	6.59 ft	110.00 ml/min
9/16/2020 12:21 PM	25:00	6.25 pH	20.00 °C	493.30 µS/cm	1.59 mg/L	1.78 NTU	46.9 mV	6.63 ft	110.00 ml/min
9/16/2020 12:26 PM	30:00	6.27 pH	20.00 °C	492.15 µS/cm	1.55 mg/L	1.60 NTU	58.7 mV	6.65 ft	110.00 ml/min
9/16/2020 12:31 PM	35:00	6.26 pH	19.97 °C	493.44 µS/cm	1.54 mg/L	1.10 NTU	46.4 mV	6.68 ft	110.00 ml/min

## Samples

Sample ID:	Description:
BRGWC-17S	

# Low-Flow Test Report:

Test Date / Time: 9/16/2020 10:37:06 AM

Project: Plant Branch

Operator Name: Travis Martinez

<b>Location Name: BRGWC-33S</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 21.66 ft</b> <b>Total Depth: 31.66 ft</b> <b>Initial Depth to Water: 8.9 ft</b>	<b>Pump Type: QED Well Wizard</b> <b>Tubing Type: Polyethylene</b> <b>Pump Intake From TOC: 26.66 ft</b> <b>Estimated Total Volume Pumped: 7500 ml</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 300 ml/min</b> <b>Final Draw Down: 0 ft</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 728550</b>
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## Test Notes:

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 5	+/- 5 %	+/- 10 %	+/- 5	+/- 25	+/- 0.3	
9/16/2020 10:37 AM	00:00	4.45 pH	20.82 °C	406.75 µS/cm	1.14 mg/L	0.43 NTU	69.5 mV	8.90 ft	300.00 ml/min
9/16/2020 10:42 AM	05:00	4.65 pH	19.91 °C	395.08 µS/cm	0.06 mg/L	0.46 NTU	71.0 mV	8.90 ft	300.00 ml/min
9/16/2020 10:47 AM	10:00	4.78 pH	19.73 °C	392.05 µS/cm	0.04 mg/L	0.74 NTU	103.2 mV	8.90 ft	300.00 ml/min
9/16/2020 10:52 AM	15:00	4.79 pH	19.68 °C	393.02 µS/cm	0.03 mg/L	0.83 NTU	71.5 mV	8.90 ft	300.00 ml/min
9/16/2020 10:57 AM	20:00	4.79 pH	19.64 °C	393.12 µS/cm	0.02 mg/L	1.21 NTU	74.7 mV	8.90 ft	300.00 ml/min
9/16/2020 11:02 AM	25:00	4.78 pH	19.66 °C	391.97 µS/cm	0.02 mg/L	1.09 NTU	116.2 mV	8.90 ft	300.00 ml/min

## Samples

Sample ID:	Description:
BRGWC-33S	

# Low-Flow Test Report:

Test Date / Time: 9/16/2020 9:34:27 AM

Project: Plant Branch

Operator Name: Travis Martinez

<b>Location Name: BRGWC-34S</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 42.64 ft</b> <b>Total Depth: 52.64 ft</b> <b>Initial Depth to Water: 2.78 ft</b>	<b>Pump Type: QED Well Wizard</b> <b>Tubing Type: Polyethylene</b> <b>Pump Intake From TOC: 47.74 ft</b> <b>Estimated Total Volume Pumped: 8750 ml</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 350 ml/min</b> <b>Final Draw Down: 0.01 ft</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 728550</b>
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## Test Notes:

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 5	+/- 5 %	+/- 10 %	+/- 5	+/- 25	+/- 0.3	
9/16/2020 9:34 AM	00:00	5.39 pH	20.95 °C	688.80 µS/cm	2.16 mg/L	0.54 NTU	87.8 mV	2.78 ft	350.00 ml/min
9/16/2020 9:39 AM	05:00	5.79 pH	20.81 °C	687.50 µS/cm	0.18 mg/L	0.81 NTU	61.4 mV	2.79 ft	350.00 ml/min
9/16/2020 9:44 AM	10:00	5.80 pH	20.70 °C	686.39 µS/cm	0.10 mg/L	0.64 NTU	78.1 mV	2.79 ft	350.00 ml/min
9/16/2020 9:49 AM	15:00	5.79 pH	20.62 °C	683.80 µS/cm	0.07 mg/L	1.04 NTU	53.1 mV	2.79 ft	350.00 ml/min
9/16/2020 9:54 AM	20:00	5.81 pH	20.62 °C	680.82 µS/cm	0.04 mg/L	0.31 NTU	50.2 mV	2.79 ft	350.00 ml/min
9/16/2020 9:59 AM	25:00	5.81 pH	20.56 °C	678.03 µS/cm	0.03 mg/L	0.29 NTU	66.8 mV	2.79 ft	350.00 ml/min

## Samples

Sample ID:	Description:
BRGWC-34S	

# Low-Flow Test Report:

Test Date / Time: 9/16/2020 8:45:35 AM

Project: Plant Branch

Operator Name: Travis Martinez

<b>Location Name: BRGWC-35S</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 25.34 ft</b> <b>Total Depth: 35.34 ft</b> <b>Initial Depth to Water: 2.22 ft</b>	<b>Pump Type: QED Well Wizard</b> <b>Tubing Type: Polyethylene</b> <b>Pump Intake From TOC: 30.34 ft</b> <b>Estimated Total Volume Pumped: 7000 ml</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 350 ml/min</b> <b>Final Draw Down: 0.08 ft</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 728550</b>
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## Test Notes:

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 5	+/- 5 %	+/- 10 %	+/- 5	+/- 25	+/- 0.3	
9/16/2020 8:45 AM	00:00	6.02 pH	21.91 °C	709.59 µS/cm	5.31 mg/L	0.51 NTU	20.8 mV	2.22 ft	300.00 ml/min
9/16/2020 8:50 AM	05:00	5.86 pH	19.95 °C	674.73 µS/cm	0.68 mg/L	1.70 NTU	70.6 mV	2.30 ft	350.00 ml/min
9/16/2020 8:55 AM	10:00	5.95 pH	19.72 °C	675.61 µS/cm	0.17 mg/L	1.27 NTU	71.4 mV	2.30 ft	350.00 ml/min
9/16/2020 9:00 AM	15:00	5.96 pH	19.65 °C	679.11 µS/cm	0.11 mg/L	0.11 NTU	70.9 mV	2.30 ft	350.00 ml/min
9/16/2020 9:05 AM	20:00	5.96 pH	19.59 °C	683.60 µS/cm	0.09 mg/L	0.17 NTU	70.0 mV	2.30 ft	350.00 ml/min

## Samples

Sample ID:	Description:
BRGWC-35S	



# Low-Flow Test Report:

Test Date / Time: 9/16/2020 2:56:46 PM

Project: Plant Branch

Operator Name: Travis Martinez

<b>Location Name: BRGWC-36S</b> <b>Well Diameter: 2 in</b> <b>Casing Type: PVC</b> <b>Screen Length: 10 ft</b> <b>Top of Screen: 24.02 ft</b> <b>Total Depth: 34.02 ft</b> <b>Initial Depth to Water: 2.34 ft</b>	<b>Pump Type: Alexis Peri Pump</b> <b>Tubing Type: Polyethylene</b> <b>Pump Intake From TOC: 29.02 ft</b> <b>Estimated Total Volume Pumped: 7125 ml</b> <b>Flow Cell Volume: 90 ml</b> <b>Final Flow Rate: 285 ml/min</b> <b>Final Draw Down: 0.17 ft</b>	<b>Instrument Used: Aqua TROLL 400</b> <b>Serial Number: 728550</b>
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## Test Notes:

## Weather Conditions:

Raining

## Low-Flow Readings:

Date Time	Elapsed Time	pH	Temperature	Specific Conductivity	RDO Concentration	Turbidity	ORP	Depth To Water	Flow
		+/- 0.1	+/- 5	+/- 5 %	+/- 10 %	+/- 5	+/- 25	+/- 0.3	
9/16/2020 2:56 PM	00:00	5.59 pH	19.51 °C	639.83 µS/cm	2.22 mg/L	2.32 NTU	79.9 mV	2.34 ft	285.00 ml/min
9/16/2020 3:01 PM	05:00	5.58 pH	19.37 °C	636.12 µS/cm	2.13 mg/L	0.71 NTU	69.9 mV	2.51 ft	285.00 ml/min
9/16/2020 3:06 PM	10:00	5.58 pH	19.33 °C	628.56 µS/cm	2.10 mg/L	0.42 NTU	90.0 mV	2.51 ft	285.00 ml/min
9/16/2020 3:11 PM	15:00	5.58 pH	19.32 °C	619.36 µS/cm	2.11 mg/L	0.69 NTU	64.1 mV	2.51 ft	285.00 ml/min
9/16/2020 3:16 PM	20:00	5.58 pH	19.26 °C	614.35 µS/cm	2.09 mg/L	0.74 NTU	61.9 mV	2.51 ft	285.00 ml/min
9/16/2020 3:21 PM	25:00	5.58 pH	19.24 °C	608.82 µS/cm	2.08 mg/L	0.74 NTU	80.3 mV	2.51 ft	285.00 ml/min

## Samples

Sample ID:	Description:
BRGWC-36S	

Product Name: Low-Flow System

Date: 2020-09-16 16:11:04

Project Information:

Operator Name A. McClure  
Company Name Golder Associates  
Project Name Plant Branch  
Site Name Plant Branch  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 465016  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type QED Well Wizard  
Tubing Type polyethylene  
Tubing Diameter 0.170 in  
Tubing Length 63.73 ft

Pump placement from TOC 63.73 ft

Well Information:

Well ID BRGWC-37S  
Well diameter 2 in  
Well Total Depth 68.73 ft  
Screen Length 10 ft  
Depth to Water 48.3 ft

Pumping Information:

Final Pumping Rate 150 mL/min  
Total System Volume 0.5651957 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 7.32 in  
Total Volume Pumped 3.75 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	15:48:51	300.03	19.50	5.49	54.34	0.05	48.87	7.82	64.04
Last 5	15:53:51	600.01	19.59	5.74	53.54	0.02	48.89	8.22	57.69
Last 5	15:58:51	900.01	19.54	5.82	53.02	0.10	48.89	8.27	56.81
Last 5	16:03:51	1200.00	19.52	5.83	52.83	0.18	48.91	8.20	56.85
Last 5	16:08:51	1499.99	19.50	5.84	52.74	0.11	48.91	8.12	55.49
Variance 0			-0.05	0.08	-0.52			0.04	-0.89
Variance 1			-0.02	0.01	-0.19			-0.07	0.04
Variance 2			-0.02	0.01	-0.09			-0.08	-1.35

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2020-09-17 11:29:09

Project Information:

Operator Name A. McClure  
Company Name Golder Associates  
Project Name Plant Branch  
Site Name Plant Branch  
Latitude 0° 0' 0"  
Longitude 0° 0' 0"  
Sonde SN 465016  
Turbidity Make/Model LaMotte 2020we

Pump Information:

Pump Model/Type QED Well Wizard  
Tubing Type polyethylene  
Tubing Diameter 0.170 in  
Tubing Length 38.66 ft

Pump placement from TOC 38.66 ft

Well Information:

Well ID BRGWC-38S  
Well diameter 2 in  
Well Total Depth 43.66 ft  
Screen Length 10 ft  
Depth to Water 21.79 ft

Pumping Information:

Final Pumping Rate 150 mL/min  
Total System Volume 0.4536101 L  
Calculated Sample Rate 300 sec  
Stabilization Drawdown 8.52 in  
Total Volume Pumped 3.75 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond $\mu$ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	11:06:49	300.03	21.20	4.16	798.89	0.22	22.45	2.09	143.01
Last 5	11:11:49	600.01	21.03	4.16	795.08	0.03	22.48	1.91	125.61
Last 5	11:16:49	900.00	21.01	4.16	796.35	0.22	22.51	1.86	118.29
Last 5	11:21:49	1199.99	21.13	4.17	797.34	0.02	22.50	1.82	116.46
Last 5	11:26:49	1499.98	21.10	4.17	793.91	0.40	22.50	1.78	114.93
Variance 0			-0.02	0.00	1.27			-0.04	-7.32
Variance 1			0.12	0.00	0.99			-0.04	-1.83
Variance 2			-0.03	0.00	-3.42			-0.04	-1.53

Notes

Grab Samples

Project Plant Branch  
 Field Staff D. Cox / T. Martinez

9th Sample Event *7/21*

Instrument Calibration

Date: ~~3-3-2020~~ Date: *3-4-2020* Date: ~~3-5-2020~~ Date:  
 Time: ~~0715~~ Time: *0719* Time: ~~0744~~ Time:

Parameter	Units	Standard	SmarTROLL SN <i>646773</i>	SmarTROLL SN <i>646773</i>	SmarTROLL SN <i>646773</i>	SmarTROLL SN _____
DO	% saturation	100	<i>91.8%</i>	<i>91.2%</i>	<i>90.8%</i>	
Conductivity	us/cm <del>4490</del> <i>4490</i>	<del>4490</del> <i>4490</i>	<i>4895</i>	<i>4381</i>	<i>4404</i>	
pH	S.U.	4.00	<i>4.46</i>	<i>4.45</i>	<i>4.52</i>	
pH	S.U.	7.00	<del>7.22</del> <i>7.22</i>	<i>7.26</i>	<i>7.29</i>	
pH	S.U.	10.00	<i>10.00</i>	<i>10.00</i>	<i>10.03</i>	
ORP	mV	228.00	<i>235.3</i>	<i>233.9</i>	<i>233.8</i>	

Turbidity	Units	Standard	LaMotte SN _____	LaMotte SN _____	LaMotte SN _____	LaMotte SN _____
	NTU	0.0				
	NTU	1.0				
	NTU	10.0				

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

Parameter	Units	Standard	SmarTROLL SN _____	SmarTROLL SN _____	SmarTROLL SN _____	SmarTROLL SN _____
DO	% saturation	100				
Conductivity	us/cm <del>4490</del> <i>4490</i>	<del>4490</del> <i>4490</i>				
pH	S.U.	4.00				
pH	S.U.	7.00				
pH	S.U.	10.00				
ORP	mV	228.00				

Turbidity	Units	Standard	LaMotte SN <i>2289-2672</i>	LaMotte SN <i>2289-2672</i>	LaMotte SN <i>2289-2672</i>	LaMotte SN _____
	NTU	0.0	<i>-0.02</i>	<i>-0.07</i>	<i>0.01</i>	
	NTU	1.0	<i>1.04</i>	<i>1.00</i>	<i>1.08</i>	
	NTU	10.0	<i>9.24</i>	<i>10.56</i>	<i>10.07</i>	

Notes: DO - Dissolved Oxygen; us/cm - microsiemens/centimeter; ORP - oxidation-reduction potential; mV - millivolts; NTU - Nphelometric Turbidity Units; NC - Not calibrated

Project Plant Branch  
 Field Staff D. Cox / T. Martinez

9th Sample Event

**Instrument Calibration**

Date: 3/3/2020 Date: 3-4-2020 Date: 3-5-2020 Date:  
 Time: 720 Time: 720 Time: 725 Time:

Parameter	Units	Standard	SmarTROLL SN <u>643819</u>	SmarTROLL SN <u>643819</u>	SmarTROLL SN <u>643819</u>	SmarTROLL SN _____
DO	% saturation	100	95.6	95.7	94.9	
Conductivity	us/cm	<del>400</del> 400	458.0	426.8	431.8	
pH	S.U.	4.00	4.71	4.67	4.91	
pH	S.U.	7.00	7.48	7.49	7.66	
pH	S.U.	10.00	10.19	10.21	16.33	
ORP	mV	228.00	218.6	217.9	212.6	

Turbidity	Units	Standard	LaMotte SN <u>7607</u>	LaMotte SN <u>7607</u>	LaMotte SN <u>7607</u>	LaMotte SN _____
	NTU	0.0	0.0	0.0	0.0	
	NTU	1.0	1.12	1.07	0.99	
	NTU	10.0	9.27	9.41	9.78	

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

Parameter	Units	Standard	SmarTROLL SN _____	SmarTROLL SN _____	SmarTROLL SN _____	SmarTROLL SN _____
DO	% saturation	100				
Conductivity	us/cm	<del>400</del> 400				
pH	S.U.	4.00				
pH	S.U.	7.00				
pH	S.U.	10.00				
ORP	mV	228.00				

Turbidity	Units	Standard	LaMotte SN _____	LaMotte SN _____	LaMotte SN _____	LaMotte SN _____
	NTU	0.0				
	NTU	1.0				
	NTU	10.0				

Notes: DO - Dissolved Oxygen; us/cm - microsiemens/centimeter; ORP - oxidation-reduction potential; mV - millivolts; NTU - Nphelometric Turbidity Units; NC - Not calibrated

Project Plant Branch  
 Field Staff A. McClure/ T. Martinez

September App III/IV Event

Instrument Calibration

Date: 9-15-2020 Date: 9-16-20 Date: 9-17 Date:  
 Time: 0748 Time: 0700 Time: 0700 Time:

Parameter	Units	Standard	SmarTROLL SN 728550	SmarTROLL SN 728550	SmarTROLL SN 728550	SmarTROLL SN _____
DO	% saturation	100	101	98.44	98.54	
Conductivity	us/cm	4490	4217	4421	4450	
pH	S.U.	4.00	3.99	3.99	4.05	
pH	S.U.	7.00	7.37	7.00	6.98	
pH	S.U.	10.00	10.67	9.99	10.02	
ORP	mV	228.00	263.0	234.5	227.4	

Turbidity	Units	Standard	LaMotte SN 7007-1416	LaMotte SN 7007-1416	LaMotte SN 7007-1416	LaMotte SN _____
	NTU	0.0	0.01	0.00	0.00	
	NTU	1.0	0.90	1.03	0.98	
	NTU	10.0	10.86	9.95	10.21	

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

Parameter	Units	Standard	SmarTROLL SN _____	SmarTROLL SN _____	SmarTROLL SN _____	SmarTROLL SN _____
DO	% saturation	100				
Conductivity	us/cm	4490				
pH	S.U.	4.00				
pH	S.U.	7.00				
pH	S.U.	10.00				
ORP	mV	228.00				

Turbidity	Units	Standard	LaMotte SN _____	LaMotte SN _____	LaMotte SN _____	LaMotte SN _____
	NTU	0.0				
	NTU	1.0				
	NTU	10.0				

Notes: DO - Dissolved Oxygen; us/cm - microsiemens/centimeter; ORP - oxidation-reduction potential;  
 mV - millivolts; NTU - Nephelometric Turbidity Units; NC - Not calibrated



Project Plant Branch  
 Field Staff A. McClure / T. Martinez

September App III/IV Event

**Instrument Calibration**

Date: 9/15/20 Date: 9/16/20 Date: 9/17/20 Date:  
 Time: 0755 Time: 0755 Time: 0755 Time:

Parameter	Units	Standard	SmarTROLL SN <u>465016</u>	SmarTROLL SN <u>465016</u>	SmarTROLL SN <u>465016</u>	SmarTROLL SN _____
DO	% saturation	100	96.3	94.3	96.2	
Conductivity	us/cm	4490	4548	4483	4482	
pH	S.U.	4.00	4.04	4.09	4.12	
pH	S.U.	7.00	7.00	6.98	6.98	
pH	S.U.	10.00	9.95	9.87	9.86	
ORP	mV	228.00	219.3	224.0	224.0	

Turbidity	Units	Standard	LaMotte SN <u>2279-2612</u>	LaMotte SN <u>2279-2612</u>	LaMotte SN <u>2279-2612</u>	LaMotte SN _____
	NTU	0.0	0.00	0.00	0.00	
	NTU	1.0	1.07	1.04	1.12	
	NTU	10.0	9.90	9.86	10.03	

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

Parameter	Units	Standard	SmarTROLL SN _____	SmarTROLL SN _____	SmarTROLL SN _____	SmarTROLL SN _____
DO	% saturation	100				
Conductivity	us/cm	4490				
pH	S.U.	4.00				
pH	S.U.	7.00				
pH	S.U.	10.00				
ORP	mV	228.00				

Turbidity	Units	Standard	LaMotte SN _____	LaMotte SN _____	LaMotte SN _____	LaMotte SN _____
	NTU	0.0				
	NTU	1.0				
	NTU	10.0				

Notes: DO - Dissolved Oxygen; us/cm - microsiemens/centimeter; ORP - oxidation-reduction potential;  
 mV - millivolts; NTU - Nphelometric Turbidity Units; NC - Not calibrated



**APPENDIX A**

# WELL INSPECTION LOGS





# WELL INSPECTION FORM PLANT BRANCH

Well-ID	POSITION	LOCATION / IDENTIFICATION	PROTECTIVE CASING	SURFACE PAD	INTERNAL CASING	SAMPLING (Groundwater Wells Only)
		a. Is the well visible and accessible? b. Is the well property identified/Correct Well ID? c. Is the well in high traffic area require traffic Protection? d. Is the drainage around the well acceptable (No standing water)? (Y / N / NA)	a. Is protective casing free from damage/ b. Is casing free of degradation or deterioration/ c. Does casing have functioning weep hole? d. Is the annual space clear of debris and water, or filled with pea gravel? e. Is the well locked and in good condition? (Y / N / NA)	a. Pad in Good Condition b. Pad Sloped away from Well? c. In contact with Protective Casing? d. In Contact with Ground Surface and Stable? e. Free of Debris? (Y / N / NA)	a. Does the cap prevent entry of foreign material? b. Is the casing free of kinks or bends or any obstruction from foreign objects? c. Is the well property vented for equilibrium of air pressure? d. Is the survey point clearly marked on the inner casing? e. Is the depth of the well consistent with the well log? f. Is the casing stable? (Y / N / NA)	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? (Y / N / NA)
	↑ or ↓					
BRGWA-25	↑E	✓	✓	✓	✓	✓
BRGWA-21	↑E	✓	✓	✓	✓	✓
BRGWA-55	↑E	✓	✓	✓	✓	✓
BRGWA-51	↑E	✓	✓	✓	✓	✓
BRGWA-65	↑E	✓	✓	✓	✓	✓
BRGWA-125	↑BCD	✓	✓	✓	✓	✓
BRGWA-121	↑BCD	✓	✓	✓	✓	✓
BRGWA-235	↑BCD	✓	✓	✓	✓	✓
BRGWC-251	↓BCD	✓	✓	✓	✓	✓
BRGWC-271	↓BCD	✓	✓	✓	✓	✓
BRGWC-291	↓BCD	✓	✓	✓	✓	✓
BRGWC-301	↓BCD	✓	✓	✓	✓	✓
BRGWC-325	↓BCD	✓	✓	✓	✓	✓
BRGWC-335	↓E	✓	✓	✓	✓	✓
BRGWC-345	↓E	✓	✓	✓	✓	✓
BRGWC-355	↓E	✓	✓	✓	✓	✓
BRGWC-175	↓E	✓	✓	✓	✓	✓ no pump dedicated
BRGWC-365	↓E	✓	✓	✓	✓	✓ no pump dedicated
BRGWC-375	↓E	✓	✓	✓	✓	✓
BRGWC-385	↓E	✓	✓	✓	✓	✓
BRGWC-45	↓BCD	✓	✓	✓	✓	✓ no pump dedicated
BRGWC-47	↓BCD	✓	✓	Small CRACK in Pad	✓	✓
BRGWC-50	↓BCD	✓	✓	✓	✓	✓
PZ-515	↓E	✓	✓	✓	Depth=47.98 (5000 1.3kd)	✓



# WELL INSPECTION FORM PLANT BRANCH

Well-ID	POSITION	LOCATION / IDENTIFICATION	PROTECTIVE CASING	SURFACE PAD	INTERNAL CASING	SAMPLING (Groundwater Wells Only)
		a. Is the well visible and accessible? b. Is the well properly identified/Correct Well ID? c. Is the well in high traffic area require traffic Protection? d. Is the drainage around the well acceptable (No standing water)? (Y / N / NA)	a. Is protective casing free from damage/ b. Is casing free of degradation or deterioration/ c. Does casing have functioning weep hole? d. Is the annual space clear of debris and water, or filled with pea gravel? e. Is the well locked and in good condition? (Y / N / NA)	a. Pad in Good Condition b. Pad Sloped away from Well? c. In contact with Protective Casing? d. In Contact with Ground Surface and Stable? e. Free of Debris? (Y / N / NA)	a. Does the cap prevent entry of foreign material? b. Is the casing free of kinks or bends or any obstruction from foreign objects? c. Is the well properly vented for equilibrium of air pressure? d. Is the survey point clearly marked on the inner casing? e. Is the depth of the well consistent with the well log? f. Is the casing stable? (Y / N / NA)	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? (Y / N / NA)
	↑ or ↓					
PZ-165		✓	✓	Pad not stable	✓	/
PZ-161		✓	✓	Pad not stable	✓	/
PZ-171		✓	✓	✓	✓	/
PZ-185		✓	✓	✓	✓	/
PZ-181		✓	✓	✓	✓	/
PZ-195		✓	✓	✓	✓	/
PZ-191		✓	✓	✓	✓	/
PZ-205		✓	✓	✓	✓	/
PZ-201		✓	✓	✓	✓	/
PZ-215		✓	✓	✓	✓	/
PZ-211		✓	✓	✓	✓	/
PZ-225		✓	✓	✓	✓	/
PZ-245	✓	✓	✓	✓	✓	/
PZ-261	✓	✓	✓	✓	✓	/
PZ-281	✓	✓	✓	✓	✓	/
PZ-315	✓	✓	✓	✓	✓	/
PZ-231	✓	✓	✓	✓	✓	/
PZ-405	✓	✓	✓	✓	✓	/
PZ-415	✓	✓	✓	✓	✓	/
PZ-425	✓	✓	✓	✓	✓	/
PZ-43	✓		No casing	No Pad	Not vented	/
PZ-44	✓		✓	✓	✓	/
PZ-46	✓		✓	✓	✓	/
PZ-48	✓		✓	✓	✓	/

# WELL INSPECTION FORM PLANT BRANCH

Well-ID	POSITION  ↑ or ↓	LOCATION / IDENTIFICATION	PROTECTIVE CASING	SURFACE PAD	INTERNAL CASING	SAMPLING (Groundwater Wells Only)
		a. Is the well visible and accessible? b. Is the well property identified/Correct Well ID? c. Is the well in high traffic area require traffic Protection? d. Is the drainage around the well acceptable (No standing water)? (Y / N / NA)	a. Is protective casing free from damage/ b. Is casing free of degradation or deterioration/ c. Does casing have functioning weep hole? d. Is the annual space clear of debris and water, or filled with pea gravel? e. Is the well locked and in good condition? (Y / N / NA)	a. Pad in Good Condition b. Pad Sloped away from Well? c. In contact with Protective Casing? d. In Contact with Ground Surface and Stable? e. Free of Debris? (Y / N / NA)	a. Does the cap prevent entry of foreign material? b. Is the casing free of kinks or bends or any obstruction from foreign objects? c. Is the well property vented for equilibrium of air pressure? d. Is the survey point clearly marked on the inner casing? e. Is the depth of the well consistent with the well log? f. Is the casing stable? (Y / N / NA)	a. Does well recharge adequately when purged? b. If dedicated sampling equipment installed, is it in good condition and specified in the approved groundater plan for the facility? c. Does the well require redevelopment? (Y / N / NA)
BRGWA-2S	↑E	ok	ok	ok	ok	ok
BRGWA-2I	↑E	ok	ok	ok	ok	ok
BRGWA-5S	↑E	ok	ok	ok	ok	ok
BRGWA-5I	↑E	ok	ok	ok	ok	ok
BRGWA-6S	↑E	ok	ok	ok	ok	ok
BRGWA-12S	↑BCD	ok	ok	ok	ok	ok
BRGWA-12I	↑BCD	ok	ok	ok	ok	ok
BRGWA-23S	↑BCD	ok	ok	ok	ok	ok
BRGWC-25I	↓BCD	ok	ok	ok	ok	ok
BRGWC-27I	↓BCD	ok	ok	ok	ok	ok
BRGWC-29I	↓BCD	ok	ok	ok	ok	ok
BRGWC-30I	↓BCD	ok	ok	ok	ok	ok
BRGWC-32S	↓BCD	ok	ok	ok	ok	ok
BRGWC-33S	↓E	ok	ok	ok	ok	ok
BRGWC-34S	↓E	ok	ok	ok	ok	ok
BRGWC-35S	↓E	ok	ok	ok	ok	ok
BRGWC-17S	↓E	ok	ok	ok	ok	no dedicated pump - sampled via peri
BRGWC-36S	↓E	ok	ok	ok	ok	no dedicated pump - sampled via peri
BRGWC-37S	↓E	ok	ok	ok	ok	ok
BRGWC-38S	↓E	ok	ok	ok	ok	ok
BRGWC-45	↓BCD	ok	ok	ok	ok	no dedicated pump - samplepro
BRGWC-47	↓BCD	ok	ok	ok	ok	no dedicated pump - samplepro
BRGWC-50	↓BCD	ok	ok	ok	ok	no dedicated pump - samplepro

# WELL INSPECTION FORM PLANT BRANCH

Well-ID	POSITION  ↑ or ↓	LOCATION / IDENTIFICATION	PROTECTIVE CASING	SURFACE PAD	INTERNAL CASING	SAMPLING (Groundwater Wells Only)
		a. Is the well visible and accessible? b. Is the well property identified/Correct Well ID? c. Is the well in high traffic area require traffic Protection? d. Is the drainage around the well acceptable (No standing water)? (Y / N / NA)	a. Is protective casing free from damage/ b. Is casing free of degradation or deterioration/ c. Does casing have functioning weep hole? d. Is the annual space clear of debirs and water, or filled with pea gravel? e. Is the well locked and in good condition? (Y / N / NA)	a. Pad in Good Condition b. Pad Sloped away from Well? c. In contact with Protective Casing? d. In Contact with Ground Surface and Stable? e. Free of Debris? (Y / N / NA)	a. Does the cap prevent entry of foreign material? b. Is the casing free of kinks or bends or any obstruction from foreign objects? c. Is the well property vented for equilibrium of air pressure? d. Is the survey point clearly marked on the inner casing? e. Is the depth of the well consistent with the well log? f. Is the casing stable? (Y / N / NA)	a. Does well recharge adequately when purged? b. If dedicated sampling equipment installed, is it in good condition and specified in the approved groundater plan for the facility? c. Does the well require redevelopment? (Y / N / NA)
PZ-51S	↓E	ok	ok	ok	ok	no dedicated pump - samplepro
PZ-51I	↓E	ok	ok	ok	ok	no dedicated pump - samplepro
BRGWC-52I	↓BCD	ok	ok	ok	ok	no dedicated pump - samplepro
PZ-1S		ok	ok	ok	ok	N/A
PZ -1I		ok	ok	ok	ok	N/A
PZ-1D		ok	ok	ok	ok	N/A
PZ -3S		ok	ok	ok	ok	N/A
PZ - 3I		ok	ok	ok	ok	N/A
PZ- 3D		ok	ok	ok	ok	N/A
PZ- 4S		ok	ok	ok	ok	N/A
PZ - 4I		ok	ok	ok	ok	N/A
PZ-7S		ok	ok	ok	ok	N/A
PZ- 8S		ok	ok	ok	ok	N/A
PZ-9S		ok	ok	ok	ok	N/A
PZ-10S		ok	ok	ok	ok	N/A
PZ-11S		ok	ok	ok	ok	N/A
PZ-12D		ok	ok	ok	ok	N/A
PZ-13S		ok	ok	ok	ok	N/A
PZ-14S		ok	ok	ok	ok	N/A
PZ -14I		ok	ok	ok	ok	N/A
PZ-15S		ok	ok	ok	ok	N/A
PZ -15I		ok	ok	ok	ok	N/A
PZ-16S		ok	ok	ok	ok	N/A
PZ -16I		ok	ok	ok	ok	N/A
PZ -17I		ok	ok	ok	ok	N/A

# WELL INSPECTION FORM PLANT BRANCH

Well-ID	POSITION  ↑ or ↓	LOCATION / IDENTIFICATION	PROTECTIVE CASING	SURFACE PAD	INTERNAL CASING	SAMPLING (Groundwater Wells Only)
		a. Is the well visible and accessible? b. Is the well property identified/Correct Well ID? c. Is the well in high traffic area require traffic Protection? d. Is the drainage around the well acceptable (No standing water)? (Y / N / NA)	a. Is protective casing free from damage/ b. Is casing free of degradation or deterioration/ c. Does casing have functioning weep hole? d. Is the annual space clear of debirs and water, or filled with pea gravel? e. Is the well locked and in good condition? (Y / N / NA)	a. Pad in Good Condition b. Pad Sloped away from Well? c. In contact with Protective Casing? d. In Contact with Ground Surface and Stable? e. Free of Debris? (Y / N / NA)	a. Does the cap prevent entry of foreign material? b. Is the casing free of kinks or bends or any obstruction from foreign objects? c. Is the well property vented for equilibrium of air pressure? d. Is the survey point clearly marked on the inner casing? e. Is the depth of the well consistent with the well log? f. Is the casing stable? (Y / N / NA)	a. Does well recharge adequately when purged? b. If dedicated sampling equipment installed, is it in good condition and specified in the approved groundater plan for the facility? c. Does the well require redevelopment? (Y / N / NA)
PZ-18S		ok	ok	ok	ok	N/A
PZ -18I		ok	ok	ok	ok	N/A
PZ-19S		ok	ok	ok	ok	N/A
PZ -19I		ok	ok	ok	ok	N/A
PZ-20S		ok	ok	ok	ok	N/A
PZ -20I		ok	ok	ok	ok	N/A
PZ-21S		ok	ok	ok	ok	N/A
PZ -21I		ok	ok	ok	ok	N/A
PZ-22S		ok	ok	ok	ok	N/A
PZ-24S		ok	ok	ok	ok	N/A
PZ-26I		ok	ok	ok	ok	N/A
PZ-28I		ok	ok	ok	ok	N/A
PZ-31S		ok	ok	ok	ok	N/A
PZ-23I		ok	ok	ok	ok	N/A
PZ-40S		ok	ok	ok	ok	N/A
PZ-41S		ok	ok	ok	ok	N/A
PZ-42S		ok	ok	ok	ok	N/A
PZ-43		ok	no casing	no pad	ok	N/A
PZ-44		ok	ok	ok	ok	N/A
PZ-46		ok	ok	ok	ok	N/A
PZ-48		ok	ok	ok	ok	N/A
PZ-49		ok	ok	ok	ok	N/A
PZ-52D	↓E	ok	ok	ok	ok	N/A
PZ-53D	↓E	ok	ok	ok	ok	N/A
PZ-54	↓E	ok	ok	ok	ok	N/A

# WELL INSPECTION FORM

## PLANT BRANCH

Well-ID	POSITION  ↑ or ↓	LOCATION / IDENTIFICATION	PROTECTIVE CASING	SURFACE PAD	INTERNAL CASING	SAMPLING (Groundwater Wells Only)
		a. Is the well visible and accessible? b. Is the well property identified/Correct Well ID? c. Is the well in high traffic area require traffic Protection? d. Is the drainage around the well acceptable (No standing water)? (Y / N / NA)	a. Is protective casing free from damage/ b. Is casing free of degradation or deterioration/ c. Does casing have functioning weep hole? d. Is the annual space clear of debris and water, or filled with pea gravel? e. Is the well locked and in good condition? (Y / N / NA)	a. Pad in Good Condition b. Pad Sloped away from Well? c. In contact with Protective Casing? d. In Contact with Ground Surface and Stable? e. Free of Debris? (Y / N / NA)	a. Does the cap prevent entry of foreign material? b. Is the casing free of kinks or bends or any obstruction from foreign objects? c. Is the well property vented for equilibrium of air pressure? d. Is the survey point clearly marked on the inner casing? e. Is the depth of the well consistent with the well log? f. Is the casing stable? (Y / N / NA)	a. Does well recharge adequately when purged? b. If dedicated sampling equipment installed, is it in good condition and specified in the approved groundater plan for the facility? c. Does the well require redevelopment? (Y / N / NA)
PZ-55		ok	ok	ok	ok	N/A
PZ-56		ok	ok	ok	ok	N/A
IW-C-1		Path to well overgrown	ok	ok	ok	N/A
IW-B-1		ok	ok	ok	ok	N/A
IW-D-1		ok	ok	ok	ok	N/A
IW-E-1		ok	ok	ok	ok	N/A
IW-B-2		ok	ok	Pad partially overgrown	ok	N/A
IW-C-2		Path to well overgrown	ok	ok	ok	N/A
IW-D-2		ok	ok	ok	ok	N/A
PB-1S		no well tag	no well casing	no pad	ok	N/A
PB-2D		no well tag	no well casing	no pad	ok	N/A
PB-4S		no well tag	no well casing	no pad	ok	N/A
PB-4D		no well tag	no well casing	no pad	ok	N/A
PB-7S		no well tag	no well casing	no pad	ok	N/A
PB-8D		no well tag	no well casing	no pad	ok	N/A
PB-8S		no well tag	no well casing	no pad	ok	N/A
PB-10D		no well tag	no well casing	no pad	ok	N/A
PB-10S		no well tag	no well casing	no pad	ok	N/A
PB-13D		no well tag	no well casing	no pad	ok	N/A
PB-13S		no well tag	no well casing	no pad	ok	N/A



# WELL INSPECTION FORM PLANT BRANCH

Well-ID	POSITION  <small>↑ or ↓</small>	<b>LOCATION / IDENTIFICATION</b> a. Is the well visible and accessible? b. Is the well property identified/Correct Well ID? c. Is the well in high traffic area require traffic Protection? d. Is the drainage around the well acceptable (No standing water)? (Y / N / NA)	<b>PROTECTIVE CASING</b> a. Is protective casing free from damage/ b. Is casing free of degradation or deterioration/ c. Does casing have functioning weep hole? d. Is the annual space clear of debirs and water, or filled with pea gravel? e. Is the well locked and in good condition? (Y / N / NA)	<b>SURFACE PAD</b> a. Pad in Good Condition b. Pad Sloped away from Well? c. In contact with Protective Casing? d. In Contact with Ground Surface and Stable? e. Free of Debris? (Y / N / NA)	<b>INTERNAL CASING</b> a. Does the cap prevent entry of foreign material? b. Is the casing free of kinks or bends or any obstruction from foreigh objects? c. Is the well property vented for equilibrium of air pressure? d. Is the survey point clearly marked on the inner casing? e. Is the depth of the well consistent with the well log? f. Is the casing stable? (Y / N / NA)	<b>SAMPLING (Groundwater Wells Only)</b> a. Does well recharge adequately when purged? b. If dedicated sampling equipment installed, is it in good condition and specified in the approved groundater plan for the facility? c. Does the well require redevelopment? (Y / N / NA)

NOTES:

- 1) Provide pictures of any deficiencies.
- 2) Notify SCS /GPC of any noted deficiencies.
- 3) Provide additional comments as necessary to address any deficiencies.
- 4) -- = no information provided.
- 5) Well depths not checked during the September 2020 event.

**APPENDIX A**

# DATA VALIDATION SUMMARIES

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## Appendix A Quality Control Review of Analytical Data submitted by Pace Analytical Plant Branch CCR Ash Pond E

This narrative presents results of the quality control (QC) data review performed on analytical data submitted by Pace Analytical Services, LLC for groundwater samples collected at the Plant Branch CCR Ash Pond AP-E between August 18, 2020 and September 17, 2020. The chemical data were reviewed to identify quality issues which could affect the use of the data for decision making purposes.

Information regarding the primary sample locations, analytical parameters, QC samples, sampling dates, and laboratory sample delivery group (SDG) designations is summarized in Table 1. In accordance with groundwater monitoring and corrective action procedures discussed in Title 40 CFR, Subpart D - Standards for the Disposal of Coal Combustion Residuals in Landfills and Surface Impoundments, the samples were analyzed for detection monitoring constituents listed in 40 CFR, Part 257, Appendix III and IV. Test methods included Inductively Coupled Plasma- Mass Spectrometry (USEPA Method 6020B), Mercury in Liquid Wastes (USEPA Method 7470A), Inductively Coupled Plasma (6010D), Determination of Inorganic Anions By Ion Chromatography (USEPA Method 300.0), Total Dissolved Solids (Standard Methods 2540C), Radium-226 (USEPA Method 9315) and Radium-228 (USEPA Method 9320).

Data were reviewed in accordance with the US EPA Region IV Data Validation Standard Operating Procedures for Contract Laboratory Program (CLP) Inorganic Data by Inductively Coupled Plasma – Atomic Emission Spectroscopy and Inductively Coupled Plasma – Mass Spectroscopy (September 2011, Rev. 2.0), US EPA Region IV Data Validation Standard Operating Procedures for CLP Mercury Data by Cold Vapor Atomic Absorption (September 2011, Rev. 2.0), the National Functional Guidelines for Inorganic Superfund Methods Data Review (January 2017), and US Department of Energy, Evaluation of Radiochemical Data Usability (April 1997). The review included an assessment of the results for completeness, precision (laboratory duplicates, matrix spike/matrix spike duplicates), accuracy (laboratory control samples and matrix spike samples), and blank contamination (including field and laboratory blanks). Additionally, sample procedures, holding times and chains-of-custody were reviewed. Where there was a discrepancy between the QC criteria in the guidelines and the QC criterion established in the analytic methodology, method-specific criteria or professional judgment was used.

### DATA QUALITY OBJECTIVES

<b>Laboratory Precision:</b>	Laboratory goals for precision were met
<b>Field Precision:</b>	Field goals for precision were met.
<b>Accuracy:</b>	Laboratory goals for accuracy were met with the exception of sulfate as described in the qualifications sections below.
<b>Detection Limits:</b>	Project goals for detection limits were met. Certain samples were diluted due to the concentration of target analytes. Dilutions do not require qualifications based on USEPA guidelines. Detection and reporting limits of non-detect compounds are elevated proportional to the dilution when undiluted sample results are not provided by the laboratory. The data usability of diluted results was evaluated by the data user in the context of site-wide characterization.
<b>Completeness:</b>	There were no rejected analytical results for this event, resulting in a completion of 100%.

**Holding Times:** All holding time requirements were met.

## QUALIFICATIONS

In general, chemical results for the samples collected at the Site were qualified on the basis of low precision or accuracy, or on the basis of professional judgment. The following definitions provide brief explanations of the qualifiers which may have been assigned to data by the laboratory during the data validation process.

- J** The analyte was positively identified above the method detection limit; however, the concentration reported is an estimated.
- U** The analyte was not detected above the method detection limit.

The data generated as part of this sampling event met the QC criteria established in the respective analytical methods and data validation guidelines except as specified below. Although these qualifications were applied to some data from samples collected at the site and reported in SDGs 92491389, 92491663, 92495656, 92495654, 92495964, and 92495960 qualifications may not have been required or applied to all samples collected. A summary of sample qualifications can be found in Table 2.

- Certain mercury results in SDG 92491663 were qualified as non-detect (U) as the analyte was detected at a similar level in an associated blank sample. As shown in Table 2, when the original sample result was below the reporting limit (RL), the results were qualified as non-detect (U) and the results were raised to the RL.
- The sulfate result in sample BRGWC-36S was qualified as estimated biased low (J-) as the associated matrix spike and/or matrix spike duplicate (MS/MSD) recovery was below the QC criteria.

Golder reviewed the data from samples collected at the Plant Branch CCR Ash Ponds between August 18, 2020 and September 17, 2020 in accordance with the analytical methods, the laboratory specific QC criteria, and the guidelines. As described above, 100% of the results were acceptable for project use.

## REFERENCE

Paar J.G. and Porterfield D.R., April 1997, US Department of Energy, *Evaluation of Radiochemical Data Usability*.

USEPA, September 2011, Region 4, Science and Ecosystem Support Division, Quality Assurance Section, MTSB, *Data Validation Standard Operating Procedures for Contract Laboratory Program Inorganic Data By Inductively Coupled Plasma – Atomic Emission Spectroscopy and Inductively Coupled Plasma – Mass Spectroscopy*, Revision 2.0.

USEPA, January 2017, National, Office of Superfund Remediation and Technology Innovation, *National Functional Guidelines for Inorganic Superfund Methods Data Review*, Revision 0.0.

**TABLE 1**  
**Sample Summary Table - Pond E**  
**SCS Plant Branch**

SDGs	Field Identification	Collection Date	Lab Identification	Matrix	QC Samples	Analysis					
						Total Metals (EPA 6020B)	Mercury (EPA 7470)	Calcium (EPA 6010D)	Anions (EPA 300.0)	TDS (SM 2540C)	Radium-226 & 228 (EPA 9315 & 9320)
92491389	BRGWA-5I	8/18/2020	92491389001	GW	-	X	X	-	X	-	X
92491389	BRGWA-5S	8/18/2020	92491389002	GW	-	X	X	-	X	-	X
92491389	BRGWA-2I	8/18/2020	92491389003	GW	-	X	X	-	X	-	X
92491389	BRGWA-2S	8/18/2020	92491389004	GW	-	X	X	-	X	-	X
92491389	BRGWA-6S	8/18/2020	92491389005	GW	-	X	X	-	X	-	X
92491663	DUP-1	8/19/2020	92491663001	GW	FD (BRGWC-34S)	X	X	-	X	-	X
92491663	BRGWC-33S	8/19/2020	92491663002	GW	-	X	X	-	X	-	X
92491663	BRGWC-34S	8/19/2020	92491663003	GW	-	X	X	-	X	-	X
92491663	FB-1	8/19/2020	92491663004	WQ	FB (BRGWC-34S)	X	X	-	X	-	X
92491663	BRGWC-35S	8/19/2020	92491663005	GW	-	X	X	-	X	-	X
92491663	BRGWC-37S	8/19/2020	92491663006	GW	-	X	X	-	X	-	X
92491663	BRGWC-38S	8/19/2020	92491663007	GW	-	X	X	-	X	-	X
92491663	BRGWC-36S	8/19/2020	92491663008	GW	-	X	X	-	X	-	X
92495656	BRGWA-6S	9/15/2020	92495656001	GW	-	X	X	X	X	X	-
92495656	BRGWA-5S	9/15/2020	92495656002	GW	-	X	X	X	X	X	-
92495656	BRGWA-5I	9/15/2020	92495656003	GW	-	X	X	X	X	X	-
92495656	BRGWA-2S	9/15/2020	92495656004	GW	-	X	X	X	X	X	-
92495656	BRGWA-2I	9/15/2020	92495656005	GW	-	X	X	X	X	X	-
92495654	BRGWA-6S	9/15/2020	92495654001	GW	-	-	-	-	-	-	X
92495964	BRGWA-5S	9/15/2020	92495654002	GW	-	-	-	-	-	-	X
92495964	BRGWA-5I	9/15/2020	92495654003	GW	-	-	-	-	-	-	X
92495964	BRGWA-2S	9/15/2020	92495654004	GW	-	-	-	-	-	-	X
92495964	BRGWA-2I	9/15/2020	92495654005	GW	-	-	-	-	-	-	X
92495964	BRGWC-35S	9/16/2020	92495964001	GW	-	X	X	X	X	X	-
92495964	BRGWC-34S	9/16/2020	92495964002	GW	-	X	X	X	X	X	-
92495964	BRGWC-33S	9/16/2020	92495964003	GW	-	X	X	X	X	X	-
92495964	BRGWC-17S	9/16/2020	92495964004	GW	-	X	X	X	X	X	-
92495964	BRGWC-36S	9/16/2020	92495964005	GW	-	X	X	X	X	X	-
92495964	BRGWC-37S	9/16/2020	92495964006	GW	-	X	X	X	X	X	-
92495964	FB-1	9/16/2020	92495964007	WQ	FB (BRGWC-34S)	X	X	X	X	X	-
92495964	DUP-2	9/16/2020	92495964008	GW	FD (BRGWC-36S)	X	X	X	X	X	-
92495964	BRGWC-38S	9/17/2020	92495964009	GW	-	X	X	X	X	X	-
92495960	BRGWC-35S	9/16/2020	92495960001	GW	-	-	-	-	-	-	X
92495960	BRGWC-34S	9/16/2020	92495960002	GW	-	-	-	-	-	-	X
92495960	BRGWC-33S	9/16/2020	92495960003	GW	-	-	-	-	-	-	X
92495960	BRGWC-17S	9/16/2020	92495960004	GW	-	-	-	-	-	-	X
92495960	BRGWC-36S	9/16/2020	92495960005	GW	-	-	-	-	-	-	X
92495960	BRGWC-37S	9/16/2020	92495960006	GW	-	-	-	-	-	-	X
92495960	FB-1	9/16/2020	92495960007	WQ	FB( BRGWC-34S)	-	-	-	-	-	X
92495960	DUP-2	9/16/2020	92495960008	GW	FD (BRGWC-36S)	-	-	-	-	-	X
92495960	BRGWC-38S	9/17/2020	92495960009	GW	-	-	-	-	-	-	X

**Abbreviations:**

- FB - Field blank
- FD - Field duplicate
- GW - Groundwater
- WQ - Water Quality
- TDS - Total Dissolved Solids
- SDG - Sample Delivery Group
- QC - Quality Control

**TABLE 2**  
**Qualifier Summary Table - Pond E**  
**Plant Branch**

<i>SDG</i>	<i>Sample Name</i>	<i>Constituent</i>	<i>New Result</i>	<i>New RL or MDC</i>	<i>Qualifier</i>	<i>Reason</i>
92495964	BRGWC-36S	Sulfate	-	-	J-	MS/MSD recovered below criteria
92491663	BRGWC-34S	Mercury	0.0002	-	U	Field blank detection

**Abbreviations:**

RL : Reporting Limit  
 SDG : Sample Delivery Group  
 MDC : Minimum Detectable Concentration  
 MS/MSD : Matrix Spike/Matrix Spike Duplicate

**Qualifiers:**

U : Non-detect result  
 J-: Estimated result, bias low

**APPENDIX B**

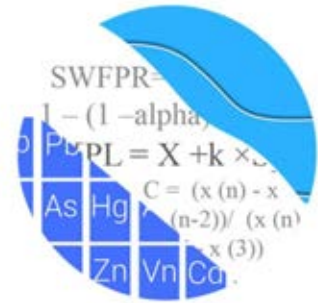
# STATISTICAL ANALYSES



# 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 Branch Pond E – September 2020 Statistical Analysis

Dear Mr. Abraham,

Groundwater Stats Consulting, formerly the statistical consulting division of Sanitas Technologies, is pleased to provide the September 2020 Semi-Annual Groundwater Monitoring and Corrective Action Statistical summary of groundwater data for Georgia Power Company's Plant Branch Pond E. The analysis complies with the Georgia Environmental Protection Division (EPD) Rules for Solid Waste Management Chapter 391-3-4-.10 as well as with the United States Environmental Protection Agency (USEPA) Unified Guidance (2009). The site is in Assessment Monitoring.

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 well:** BRGWA-2I, BRGWA-2S, BRGWA-5I, BRGWA-5S, BRGWA-6S
- **Downgradient wells:** BRGWC-17S, BRGWC-33S, BRGWC-34S, BRGWC-35S, BRGWC-36S, BRGWC-37S, BRGWC-38S

The monitoring program consists of the following constituents:

- **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. A substitution of the most recent reporting limit is used for nondetect data.

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).

In earlier analyses, data at all wells were evaluated for the following: 1) outliers; 2) trends; 3) most appropriate statistical method for Appendix III parameters based on site characteristics of groundwater data upgradient of the facility; and 4) eligibility of downgradient wells when intrawell statistical methods are recommended. Power curves were provided with the previous screening to demonstrate that the selected statistical methods for Appendix III parameters comply with the USEPA Unified Guidance. The EPA suggests the selected statistical method should provide at least 55% power at 3 standard deviations or at least 80% power at 4 standard deviations.

### **Summary of Statistical Methods – Appendix III Parameters:**

Based on the earlier evaluation described above, the following methods were selected:

- Interwell prediction limits, combined with a 1-of-2 resample plan for boron, calcium, chloride, fluoride, pH, sulfate, and TDS

Parametric prediction limits 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 distribution of data is tested using the Shapiro-Wilk/Shapiro-Francia test for normality. After testing for normality and performing any adjustments as discussed below (US EPA, 2009), data are analyzed using either parametric or non-parametric prediction limits.

- 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 – Conducted in March 2019**

### Outlier and Trend Testing

Time series plots were used to identify suspected outliers, or extreme values that would result in limits that are not conservative from a regulatory perspective, in proposed background data. Suspected outliers at all wells for Appendix III and Appendix IV parameters were formally tested using Tukey's box plot method and, when identified

either visually or by Tukey's test, flagged in the computer database with "o" and deselected prior to construction of statistical limits. A list of flagged values is provided in the outlier summary (Figure C). Although outliers were screened for all wells, only outliers in upgradient wells will affect the interwell prediction limits.

When suspected outliers were evaluated using the Tukey box plot method during the previous screening, a few outliers were identified. In cases where the most recent value was identified as an outlier, values were not flagged in the database as they may represent a future 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 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.

When any values are flagged in the database as outliers, they were plotted in a disconnected and lighter symbol on the time series graph. A substitution of the most recent reporting limit was applied when varying detection limits existed in data. Note that the reporting limit for boron for this event was 0.1 mg/L; however, the historical reporting limit of 0.04 mg/L was substituted for all nondetects which provides more conservative (lower) statistical limits.

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 each well to identify statistically significant increasing or decreasing trends. 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, earlier data are evaluated to determine whether earlier concentration levels are significantly different than current reported concentrations and will be deselected as necessary. When the historical records of data are truncated for the reasons above, a summary report will be provided to show the date ranges used in construction of the statistical limits.

The results of the trend analyses showed a handful of statistically significant decreasing and increasing trends for the Appendix III parameters. All trends noted were relatively low in magnitude when compared to average concentrations and were in downgradient wells; therefore, they did not affect the interwell limits, and no adjustments were made to the data sets. Trend test results were included with the background screening report.

### Appendix III – Determination of Spatial Variation

The Analysis of Variance (ANOVA) was used to statistically evaluate differences in average concentrations among upgradient wells, which assists in identifying the most appropriate statistical approach. 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.

The ANOVA identified no variation among upgradient well data for fluoride, making this constituent eligible for interwell analyses. Variation was noted for boron, calcium, chloride, pH, sulfate and TDS. 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.

### **Evaluation of Appendix III Parameters – September 2020**

Interwell prediction limits, combined with a 1-of-2 resample plan, were constructed using all historical upgradient well data through September 2020 (Figure D). Background (upgradient) well data were re-assessed for potential outliers during this analysis and no new values were flagged. 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). As mentioned above, due to an increased reporting limit (RL) of <0.1 mg/L for the most recent sample event, the historical reporting limit of 0.04 mg/L was substituted for nondetects for boron to maintain conservative statistical limits.

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 resamples confirm 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. Prediction limit exceedances were noted for Appendix III parameters. A summary table of the background prediction limits follows this letter.

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). Upgradient wells are included in the trend analyses to identify whether similar patterns exist upgradient of the site which is an indication of natural variability in groundwater unrelated to practices at the site. While several statistically significant decreasing trends were noted for upgradient and downgradient wells, two statistically significant increasing trends were identified for boron in well BRGWC-35S and chloride in well GRGWC-36S. A summary of the trend test results follows this letter.

### **Evaluation of Appendix IV Parameters – September 2020**

Data from all wells for Appendix IV parameters are reassessed for outliers during each analysis and no new outliers were flagged. Interwell tolerance limits were used to calculate the site-specific background limits from pooled upgradient well data for Appendix IV constituents (Figure F). Parametric tolerance limits are used when data follow a normal or transformed-normal distribution such as for chromium and radium. 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) (Figure G).

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 level 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 (Figure H). To complete the statistical comparison to GWPS, confidence intervals were constructed for each of the Appendix IV constituents in each downgradient well with detections (Figure H). 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 Georgia EPD Rules 391-3-4-.10(6)(a). 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. Exceedances were noted for beryllium in well BRGWC-38S and for cobalt in wells BRGWC-33S and BRGWC-38S. A summary of the confidence intervals follows this letter.

Thank you for the opportunity to assist you in the statistical analysis of groundwater quality for Plant Branch Pond E. If you have any questions or comments, please feel free to contact us.

For Groundwater Stats Consulting,



Kristina L. Rayner  
Groundwater Statistician

# Interwell Prediction Limit Summary - Significant Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 11/1/2020, 11:16 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	BRGWC-33S	0.04	n/a	9/16/2020	1.1	Yes	60	n/a	n/a	68.33	n/a	n/a	0.0005205	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-34S	0.04	n/a	9/16/2020	2.2	Yes	60	n/a	n/a	68.33	n/a	n/a	0.0005205	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-35S	0.04	n/a	9/16/2020	1.9	Yes	60	n/a	n/a	68.33	n/a	n/a	0.0005205	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-36S	0.04	n/a	9/16/2020	0.99	Yes	60	n/a	n/a	68.33	n/a	n/a	0.0005205	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-38S	0.04	n/a	9/17/2020	1.4	Yes	60	n/a	n/a	68.33	n/a	n/a	0.0005205	NP Inter (NDs) 1 of 2
Calcium (mg/L)	BRGWC-17S	24	n/a	9/16/2020	37.9	Yes	60	n/a	n/a	5	n/a	n/a	0.0005205	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-33S	24	n/a	9/16/2020	37.9	Yes	60	n/a	n/a	5	n/a	n/a	0.0005205	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-34S	24	n/a	9/16/2020	77.7	Yes	60	n/a	n/a	5	n/a	n/a	0.0005205	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-35S	24	n/a	9/16/2020	61.8	Yes	60	n/a	n/a	5	n/a	n/a	0.0005205	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-36S	24	n/a	9/16/2020	45.9	Yes	60	n/a	n/a	5	n/a	n/a	0.0005205	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-38S	24	n/a	9/17/2020	33.1	Yes	60	n/a	n/a	5	n/a	n/a	0.0005205	NP Inter (normality) 1 of 2
Chloride, Total (mg/L)	BRGWC-34S	4.8	n/a	9/16/2020	6.6	Yes	60	n/a	n/a	0	n/a	n/a	0.0005205	NP Inter (normality) 1 of 2
Chloride, Total (mg/L)	BRGWC-35S	4.8	n/a	9/16/2020	6	Yes	60	n/a	n/a	0	n/a	n/a	0.0005205	NP Inter (normality) 1 of 2
Chloride, Total (mg/L)	BRGWC-36S	4.8	n/a	9/16/2020	7.9	Yes	60	n/a	n/a	0	n/a	n/a	0.0005205	NP Inter (normality) 1 of 2
Chloride, Total (mg/L)	BRGWC-38S	4.8	n/a	9/17/2020	6.1	Yes	60	n/a	n/a	0	n/a	n/a	0.0005205	NP Inter (normality) 1 of 2
Fluoride (mg/L)	BRGWC-38S	0.3	n/a	9/17/2020	0.68	Yes	70	n/a	n/a	52.86	n/a	n/a	0.0003866	NP Inter (NDs) 1 of 2
pH, Field (S.U)	BRGWC-33S	7.108	5.895	9/16/2020	4.78	Yes	69	6.501	0.3176	0	None	No	0.0005373	Param Inter 1 of 2
pH, Field (S.U)	BRGWC-34S	7.108	5.895	9/16/2020	5.81	Yes	69	6.501	0.3176	0	None	No	0.0005373	Param Inter 1 of 2
pH, Field (S.U)	BRGWC-36S	7.108	5.895	9/16/2020	5.58	Yes	69	6.501	0.3176	0	None	No	0.0005373	Param Inter 1 of 2
pH, Field (S.U)	BRGWC-38S	7.108	5.895	9/17/2020	4.17	Yes	69	6.501	0.3176	0	None	No	0.0005373	Param Inter 1 of 2
pH, Field (S.U)	BRGWC-37S	7.108	5.895	9/16/2020	5.84	Yes	69	6.501	0.3176	0	None	No	0.0005373	Param Inter 1 of 2
Sulfate as SO4 (mg/L)	BRGWC-17S	7.5	n/a	9/16/2020	151	Yes	60	n/a	n/a	15	n/a	n/a	0.0005205	NP Inter (normality) 1 of 2
Sulfate as SO4 (mg/L)	BRGWC-33S	7.5	n/a	9/16/2020	154	Yes	60	n/a	n/a	15	n/a	n/a	0.0005205	NP Inter (normality) 1 of 2
Sulfate as SO4 (mg/L)	BRGWC-34S	7.5	n/a	9/16/2020	283	Yes	60	n/a	n/a	15	n/a	n/a	0.0005205	NP Inter (normality) 1 of 2
Sulfate as SO4 (mg/L)	BRGWC-35S	7.5	n/a	9/16/2020	270	Yes	60	n/a	n/a	15	n/a	n/a	0.0005205	NP Inter (normality) 1 of 2
Sulfate as SO4 (mg/L)	BRGWC-36S	7.5	n/a	9/16/2020	256	Yes	60	n/a	n/a	15	n/a	n/a	0.0005205	NP Inter (normality) 1 of 2
Sulfate as SO4 (mg/L)	BRGWC-38S	7.5	n/a	9/17/2020	356	Yes	60	n/a	n/a	15	n/a	n/a	0.0005205	NP Inter (normality) 1 of 2
Total Dissolved Solids [TDS] (mg/L)	BRGWC-17S	299	n/a	9/16/2020	316	Yes	60	n/a	n/a	3.333	n/a	n/a	0.0005205	NP Inter (normality) 1 of 2
Total Dissolved Solids [TDS] (mg/L)	BRGWC-34S	299	n/a	9/16/2020	392	Yes	60	n/a	n/a	3.333	n/a	n/a	0.0005205	NP Inter (normality) 1 of 2
Total Dissolved Solids [TDS] (mg/L)	BRGWC-35S	299	n/a	9/16/2020	474	Yes	60	n/a	n/a	3.333	n/a	n/a	0.0005205	NP Inter (normality) 1 of 2
Total Dissolved Solids [TDS] (mg/L)	BRGWC-36S	299	n/a	9/16/2020	463	Yes	60	n/a	n/a	3.333	n/a	n/a	0.0005205	NP Inter (normality) 1 of 2
Total Dissolved Solids [TDS] (mg/L)	BRGWC-38S	299	n/a	9/17/2020	587	Yes	60	n/a	n/a	3.333	n/a	n/a	0.0005205	NP Inter (normality) 1 of 2



# Interwell Prediction Limit Summary - All Results

Plant Branch    Client: Southern Company    Data: Plant Branch AP    Printed 11/1/2020, 11:16 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	BRGWC-17S	0.04	n/a	9/16/2020	0.0066J	No	60	n/a	n/a	68.33	n/a	n/a	0.0005205	NP Inter (NDs) 1 of 2
<b>Boron (mg/L)</b>	<b>BRGWC-33S</b>	<b>0.04</b>	<b>n/a</b>	<b>9/16/2020</b>	<b>1.1</b>	<b>Yes</b>	<b>60</b>	<b>n/a</b>	<b>n/a</b>	<b>68.33</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0005205</b>	<b>NP Inter (NDs) 1 of 2</b>
Boron (mg/L)	BRGWC-34S	0.04	n/a	9/16/2020	2.2	Yes	60	n/a	n/a	68.33	n/a	n/a	0.0005205	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-35S	0.04	n/a	9/16/2020	1.9	Yes	60	n/a	n/a	68.33	n/a	n/a	0.0005205	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-36S	0.04	n/a	9/16/2020	0.99	Yes	60	n/a	n/a	68.33	n/a	n/a	0.0005205	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-38S	0.04	n/a	9/17/2020	1.4	Yes	60	n/a	n/a	68.33	n/a	n/a	0.0005205	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-37S	0.04	n/a	9/16/2020	0.0062J	No	60	n/a	n/a	68.33	n/a	n/a	0.0005205	NP Inter (NDs) 1 of 2
Calcium (mg/L)	BRGWC-17S	24	n/a	9/16/2020	37.9	Yes	60	n/a	n/a	5	n/a	n/a	0.0005205	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-33S	24	n/a	9/16/2020	37.9	Yes	60	n/a	n/a	5	n/a	n/a	0.0005205	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-34S	24	n/a	9/16/2020	77.7	Yes	60	n/a	n/a	5	n/a	n/a	0.0005205	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-35S	24	n/a	9/16/2020	61.8	Yes	60	n/a	n/a	5	n/a	n/a	0.0005205	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-36S	24	n/a	9/16/2020	45.9	Yes	60	n/a	n/a	5	n/a	n/a	0.0005205	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-38S	24	n/a	9/17/2020	33.1	Yes	60	n/a	n/a	5	n/a	n/a	0.0005205	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-37S	24	n/a	9/16/2020	3.2	No	60	n/a	n/a	5	n/a	n/a	0.0005205	NP Inter (normality) 1 of 2
Chloride, Total (mg/L)	BRGWC-17S	4.8	n/a	9/16/2020	4.2	No	60	n/a	n/a	0	n/a	n/a	0.0005205	NP Inter (normality) 1 of 2
Chloride, Total (mg/L)	BRGWC-33S	4.8	n/a	9/16/2020	4.1	No	60	n/a	n/a	0	n/a	n/a	0.0005205	NP Inter (normality) 1 of 2
<b>Chloride, Total (mg/L)</b>	<b>BRGWC-34S</b>	<b>4.8</b>	<b>n/a</b>	<b>9/16/2020</b>	<b>6.6</b>	<b>Yes</b>	<b>60</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0005205</b>	<b>NP Inter (normality) 1 of 2</b>
<b>Chloride, Total (mg/L)</b>	<b>BRGWC-35S</b>	<b>4.8</b>	<b>n/a</b>	<b>9/16/2020</b>	<b>6</b>	<b>Yes</b>	<b>60</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0005205</b>	<b>NP Inter (normality) 1 of 2</b>
<b>Chloride, Total (mg/L)</b>	<b>BRGWC-36S</b>	<b>4.8</b>	<b>n/a</b>	<b>9/16/2020</b>	<b>7.9</b>	<b>Yes</b>	<b>60</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0005205</b>	<b>NP Inter (normality) 1 of 2</b>
<b>Chloride, Total (mg/L)</b>	<b>BRGWC-38S</b>	<b>4.8</b>	<b>n/a</b>	<b>9/17/2020</b>	<b>6.1</b>	<b>Yes</b>	<b>60</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0005205</b>	<b>NP Inter (normality) 1 of 2</b>
Chloride, Total (mg/L)	BRGWC-37S	4.8	n/a	9/16/2020	1.8	No	60	n/a	n/a	0	n/a	n/a	0.0005205	NP Inter (normality) 1 of 2
Fluoride (mg/L)	BRGWC-17S	0.3	n/a	9/16/2020	0.1	No	70	n/a	n/a	52.86	n/a	n/a	0.0003866	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BRGWC-33S	0.3	n/a	9/16/2020	0.085J	No	70	n/a	n/a	52.86	n/a	n/a	0.0003866	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BRGWC-34S	0.3	n/a	9/16/2020	0.077J	No	70	n/a	n/a	52.86	n/a	n/a	0.0003866	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BRGWC-35S	0.3	n/a	9/16/2020	0.062J	No	70	n/a	n/a	52.86	n/a	n/a	0.0003866	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BRGWC-36S	0.3	n/a	9/16/2020	0.1ND	No	70	n/a	n/a	52.86	n/a	n/a	0.0003866	NP Inter (NDs) 1 of 2
<b>Fluoride (mg/L)</b>	<b>BRGWC-38S</b>	<b>0.3</b>	<b>n/a</b>	<b>9/17/2020</b>	<b>0.68</b>	<b>Yes</b>	<b>70</b>	<b>n/a</b>	<b>n/a</b>	<b>52.86</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0003866</b>	<b>NP Inter (NDs) 1 of 2</b>
Fluoride (mg/L)	BRGWC-37S	0.3	n/a	9/16/2020	0.1ND	No	70	n/a	n/a	52.86	n/a	n/a	0.0003866	NP Inter (NDs) 1 of 2
pH, Field (S.U)	BRGWC-17S	7.108	5.895	9/16/2020	6.26	No	69	6.501	0.3176	0	None	No	0.0005373	Param Inter 1 of 2
<b>pH, Field (S.U)</b>	<b>BRGWC-33S</b>	<b>7.108</b>	<b>5.895</b>	<b>9/16/2020</b>	<b>4.78</b>	<b>Yes</b>	<b>69</b>	<b>6.501</b>	<b>0.3176</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.0005373</b>	<b>Param Inter 1 of 2</b>
<b>pH, Field (S.U)</b>	<b>BRGWC-34S</b>	<b>7.108</b>	<b>5.895</b>	<b>9/16/2020</b>	<b>5.81</b>	<b>Yes</b>	<b>69</b>	<b>6.501</b>	<b>0.3176</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.0005373</b>	<b>Param Inter 1 of 2</b>
pH, Field (S.U)	BRGWC-35S	7.108	5.895	9/16/2020	5.96	No	69	6.501	0.3176	0	None	No	0.0005373	Param Inter 1 of 2
<b>pH, Field (S.U)</b>	<b>BRGWC-36S</b>	<b>7.108</b>	<b>5.895</b>	<b>9/16/2020</b>	<b>5.58</b>	<b>Yes</b>	<b>69</b>	<b>6.501</b>	<b>0.3176</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.0005373</b>	<b>Param Inter 1 of 2</b>
<b>pH, Field (S.U)</b>	<b>BRGWC-38S</b>	<b>7.108</b>	<b>5.895</b>	<b>9/17/2020</b>	<b>4.17</b>	<b>Yes</b>	<b>69</b>	<b>6.501</b>	<b>0.3176</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.0005373</b>	<b>Param Inter 1 of 2</b>
<b>pH, Field (S.U)</b>	<b>BRGWC-37S</b>	<b>7.108</b>	<b>5.895</b>	<b>9/16/2020</b>	<b>5.84</b>	<b>Yes</b>	<b>69</b>	<b>6.501</b>	<b>0.3176</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.0005373</b>	<b>Param Inter 1 of 2</b>
Sulfate as SO4 (mg/L)	BRGWC-17S	7.5	n/a	9/16/2020	151	Yes	60	n/a	n/a	15	n/a	n/a	0.0005205	NP Inter (normality) 1 of 2
Sulfate as SO4 (mg/L)	BRGWC-33S	7.5	n/a	9/16/2020	154	Yes	60	n/a	n/a	15	n/a	n/a	0.0005205	NP Inter (normality) 1 of 2
Sulfate as SO4 (mg/L)	BRGWC-34S	7.5	n/a	9/16/2020	283	Yes	60	n/a	n/a	15	n/a	n/a	0.0005205	NP Inter (normality) 1 of 2
Sulfate as SO4 (mg/L)	BRGWC-35S	7.5	n/a	9/16/2020	270	Yes	60	n/a	n/a	15	n/a	n/a	0.0005205	NP Inter (normality) 1 of 2
Sulfate as SO4 (mg/L)	BRGWC-36S	7.5	n/a	9/16/2020	256	Yes	60	n/a	n/a	15	n/a	n/a	0.0005205	NP Inter (normality) 1 of 2
Sulfate as SO4 (mg/L)	BRGWC-38S	7.5	n/a	9/17/2020	356	Yes	60	n/a	n/a	15	n/a	n/a	0.0005205	NP Inter (normality) 1 of 2
Sulfate as SO4 (mg/L)	BRGWC-37S	7.5	n/a	9/16/2020	0.5ND	No	60	n/a	n/a	15	n/a	n/a	0.0005205	NP Inter (normality) 1 of 2
<b>Total Dissolved Solids [TDS] (mg/L)</b>	<b>BRGWC-17S</b>	<b>299</b>	<b>n/a</b>	<b>9/16/2020</b>	<b>316</b>	<b>Yes</b>	<b>60</b>	<b>n/a</b>	<b>n/a</b>	<b>3.333</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0005205</b>	<b>NP Inter (normality) 1 of 2</b>
Total Dissolved Solids [TDS] (mg/L)	BRGWC-33S	299	n/a	9/16/2020	88	No	60	n/a	n/a	3.333	n/a	n/a	0.0005205	NP Inter (normality) 1 of 2
<b>Total Dissolved Solids [TDS] (mg/L)</b>	<b>BRGWC-34S</b>	<b>299</b>	<b>n/a</b>	<b>9/16/2020</b>	<b>392</b>	<b>Yes</b>	<b>60</b>	<b>n/a</b>	<b>n/a</b>	<b>3.333</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0005205</b>	<b>NP Inter (normality) 1 of 2</b>
<b>Total Dissolved Solids [TDS] (mg/L)</b>	<b>BRGWC-35S</b>	<b>299</b>	<b>n/a</b>	<b>9/16/2020</b>	<b>474</b>	<b>Yes</b>	<b>60</b>	<b>n/a</b>	<b>n/a</b>	<b>3.333</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0005205</b>	<b>NP Inter (normality) 1 of 2</b>
<b>Total Dissolved Solids [TDS] (mg/L)</b>	<b>BRGWC-36S</b>	<b>299</b>	<b>n/a</b>	<b>9/16/2020</b>	<b>463</b>	<b>Yes</b>	<b>60</b>	<b>n/a</b>	<b>n/a</b>	<b>3.333</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0005205</b>	<b>NP Inter (normality) 1 of 2</b>
<b>Total Dissolved Solids [TDS] (mg/L)</b>	<b>BRGWC-38S</b>	<b>299</b>	<b>n/a</b>	<b>9/17/2020</b>	<b>587</b>	<b>Yes</b>	<b>60</b>	<b>n/a</b>	<b>n/a</b>	<b>3.333</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0005205</b>	<b>NP Inter (normality) 1 of 2</b>
Total Dissolved Solids [TDS] (mg/L)	BRGWC-37S	299	n/a	9/16/2020	31	No	60	n/a	n/a	3.333	n/a	n/a	0.0005205	NP Inter (normality) 1 of 2

# Trend Test Summary - Significant Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 11/1/2020, 11:24 AM

<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Normality</u>	<u>Xform</u>	<u>Alpha</u>	<u>Method</u>
Boron (mg/L)	BRGWC-35S	0.2452	52	38	Yes	12	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWC-34S	-6.103	-42	-38	Yes	12	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWC-38S	-2.362	-40	-38	Yes	12	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BRGWC-36S	1.313	52	38	Yes	12	0	n/a	n/a	0.01	NP
pH, Field (S.U)	BRGWA-2I (bg)	-0.1422	-59	-48	Yes	14	0	n/a	n/a	0.01	NP
pH, Field (S.U)	BRGWC-38S	-0.215	-63	-48	Yes	14	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	BRGWC-34S	-38.53	-55	-38	Yes	12	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	BRGWC-38S	-25.44	-41	-38	Yes	12	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	BRGWC-34S	-67.45	-48	-38	Yes	12	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	BRGWC-36S	-15.74	-41	-38	Yes	12	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	BRGWC-38S	-51.51	-52	-38	Yes	12	0	n/a	n/a	0.01	NP

# Trend Test Summary - All Results

Plant Branch    Client: Southern Company    Data: Plant Branch AP    Printed 11/1/2020, 11:24 AM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	BRGWA-2I (bg)	-0.0003913	-9	-38	No	12	16.67	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWA-2S (bg)	0	0	38	No	12	100	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWA-5I (bg)	0	5	38	No	12	83.33	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWA-5S (bg)	0	-6	-38	No	12	66.67	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWA-6S (bg)	0	-2	-38	No	12	75	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWC-33S	0.01641	7	38	No	12	0	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWC-34S	0.01111	8	38	No	12	0	n/a	n/a	0.01	NP
<b>Boron (mg/L)</b>	<b>BRGWC-35S</b>	<b>0.2452</b>	<b>52</b>	<b>38</b>	<b>Yes</b>	<b>12</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Boron (mg/L)	BRGWC-36S	0.05331	34	43	No	13	0	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWC-38S	-0.08681	-27	-38	No	12	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWA-2I (bg)	1.137	29	38	No	12	8.333	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWA-2S (bg)	-0.05889	-17	-38	No	12	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWA-5I (bg)	-0.08584	-3	-38	No	12	8.333	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWA-5S (bg)	-0.153	-4	-38	No	12	8.333	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWA-6S (bg)	0.1455	32	38	No	12	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWC-17S	1.454	23	38	No	12	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWC-33S	-1.126	-16	-38	No	12	0	n/a	n/a	0.01	NP
<b>Calcium (mg/L)</b>	<b>BRGWC-34S</b>	<b>-6.103</b>	<b>-42</b>	<b>-38</b>	<b>Yes</b>	<b>12</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Calcium (mg/L)	BRGWC-35S	0.7703	13	38	No	12	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWC-36S	-1.111	-23	-38	No	12	0	n/a	n/a	0.01	NP
<b>Calcium (mg/L)</b>	<b>BRGWC-38S</b>	<b>-2.362</b>	<b>-40</b>	<b>-38</b>	<b>Yes</b>	<b>12</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Chloride, Total (mg/L)	BRGWA-2I (bg)	-0.02706	-7	-38	No	12	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BRGWA-2S (bg)	0	0	38	No	12	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BRGWA-5I (bg)	-0.1482	-21	-38	No	12	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BRGWA-5S (bg)	-0.01532	-6	-38	No	12	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BRGWA-6S (bg)	0.01532	12	38	No	12	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BRGWC-34S	-0.2166	-33	-38	No	12	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BRGWC-35S	0.08852	21	38	No	12	0	n/a	n/a	0.01	NP
<b>Chloride, Total (mg/L)</b>	<b>BRGWC-36S</b>	<b>1.313</b>	<b>52</b>	<b>38</b>	<b>Yes</b>	<b>12</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Chloride, Total (mg/L)	BRGWC-38S	0.2779	14	38	No	12	0	n/a	n/a	0.01	NP
Fluoride (mg/L)	BRGWA-2I (bg)	-0.01511	-39	-48	No	14	42.86	n/a	n/a	0.01	NP
Fluoride (mg/L)	BRGWA-2S (bg)	0	7	48	No	14	57.14	n/a	n/a	0.01	NP
Fluoride (mg/L)	BRGWA-5I (bg)	0	17	48	No	14	71.43	n/a	n/a	0.01	NP
Fluoride (mg/L)	BRGWA-5S (bg)	-0.01067	-29	-48	No	14	35.71	n/a	n/a	0.01	NP
Fluoride (mg/L)	BRGWA-6S (bg)	0	11	48	No	14	57.14	n/a	n/a	0.01	NP
Fluoride (mg/L)	BRGWC-38S	0.04873	16	48	No	14	0	n/a	n/a	0.01	NP
<b>pH, Field (S.U)</b>	<b>BRGWA-2I (bg)</b>	<b>-0.1422</b>	<b>-59</b>	<b>-48</b>	<b>Yes</b>	<b>14</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
pH, Field (S.U)	BRGWA-2S (bg)	-0.04353	-47	-48	No	14	0	n/a	n/a	0.01	NP
pH, Field (S.U)	BRGWA-5I (bg)	-0.03452	-29	-48	No	14	0	n/a	n/a	0.01	NP
pH, Field (S.U)	BRGWA-5S (bg)	-0.05503	-32	-48	No	14	0	n/a	n/a	0.01	NP
pH, Field (S.U)	BRGWA-6S (bg)	-0.04101	-17	-43	No	13	0	n/a	n/a	0.01	NP
pH, Field (S.U)	BRGWC-33S	-0.01441	-30	-53	No	15	0	n/a	n/a	0.01	NP
pH, Field (S.U)	BRGWC-34S	0	-2	-48	No	14	0	n/a	n/a	0.01	NP
pH, Field (S.U)	BRGWC-36S	-0.01515	-10	-43	No	13	0	n/a	n/a	0.01	NP
<b>pH, Field (S.U)</b>	<b>BRGWC-38S</b>	<b>-0.215</b>	<b>-63</b>	<b>-48</b>	<b>Yes</b>	<b>14</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
pH, Field (S.U)	BRGWC-37S	0.01714	1	34	No	11	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	BRGWA-2I (bg)	-0.1119	-11	-38	No	12	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	BRGWA-2S (bg)	0.04767	13	38	No	12	25	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	BRGWA-5I (bg)	-0.1873	-8	-38	No	12	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	BRGWA-5S (bg)	-0.07276	-22	-38	No	12	25	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	BRGWA-6S (bg)	-0.01104	-8	-38	No	12	25	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	BRGWC-17S	7.267	19	38	No	12	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	BRGWC-33S	-13.69	-29	-38	No	12	0	n/a	n/a	0.01	NP
<b>Sulfate as SO4 (mg/L)</b>	<b>BRGWC-34S</b>	<b>-38.53</b>	<b>-55</b>	<b>-38</b>	<b>Yes</b>	<b>12</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Sulfate as SO4 (mg/L)	BRGWC-35S	0.9989	3	38	No	12	0	n/a	n/a	0.01	NP

# Trend Test Summary - All Results

Plant Branch    Client: Southern Company    Data: Plant Branch AP    Printed 11/1/2020, 11:24 AM

<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Normality</u>	<u>Xform</u>	<u>Alpha</u>	<u>Method</u>
Sulfate as SO4 (mg/L)	BRGWC-36S	-11.18	-19	-38	No	12	0	n/a	n/a	0.01	NP
<b>Sulfate as SO4 (mg/L)</b>	<b>BRGWC-38S</b>	<b>-25.44</b>	<b>-41</b>	<b>-38</b>	<b>Yes</b>	<b>12</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Total Dissolved Solids [TDS] (mg/L)	BRGWA-2I (bg)	-1.984	-2	-38	No	12	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	BRGWA-2S (bg)	4.612	11	38	No	12	8.333	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	BRGWA-5I (bg)	-3.347	-9	-38	No	12	8.333	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	BRGWA-5S (bg)	-3.649	-23	-38	No	12	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	BRGWA-6S (bg)	0.4269	1	38	No	12	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	BRGWC-17S	-4.988	-8	-38	No	12	0	n/a	n/a	0.01	NP
<b>Total Dissolved Solids [TDS] (mg/L)</b>	<b>BRGWC-34S</b>	<b>-67.45</b>	<b>-48</b>	<b>-38</b>	<b>Yes</b>	<b>12</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Total Dissolved Solids [TDS] (mg/L)	BRGWC-35S	-1.794	-2	-38	No	12	0	n/a	n/a	0.01	NP
<b>Total Dissolved Solids [TDS] (mg/L)</b>	<b>BRGWC-36S</b>	<b>-15.74</b>	<b>-41</b>	<b>-38</b>	<b>Yes</b>	<b>12</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Total Dissolved Solids [TDS] (mg/L)</b>	<b>BRGWC-38S</b>	<b>-51.51</b>	<b>-52</b>	<b>-38</b>	<b>Yes</b>	<b>12</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>

# Tolerance Limit Summary Table

Plant Branch    Client: Southern Company    Data: Plant Branch AP    Printed 11/1/2020, 11:37 AM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Bg N</u>	<u>Bg Mean</u>	<u>Std. Dev.</u>	<u>%NDs</u>	<u>ND Adj.</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Antimony (mg/L)	n/a	0.003	65	n/a	n/a	89.23	n/a	n/a	0.03565	NP Inter(NDs)
Arsenic (mg/L)	n/a	0.005	65	n/a	n/a	73.85	n/a	n/a	0.03565	NP Inter(normality)
Barium (mg/L)	n/a	0.063	65	n/a	n/a	0	n/a	n/a	0.03565	NP Inter(normality)
Beryllium (mg/L)	n/a	0.003	65	n/a	n/a	100	n/a	n/a	0.03565	NP Inter(NDs)
Cadmium (mg/L)	n/a	0.0025	65	n/a	n/a	100	n/a	n/a	0.03565	NP Inter(NDs)
Chromium (mg/L)	n/a	0.01356	65	0.005521	0.004018	20	Kaplan-Meier	No	0.05	Inter
Cobalt (mg/L)	n/a	0.005	63	n/a	n/a	49.21	n/a	n/a	0.0395	NP Inter(normality)
Combined Radium 226 + 228 (pCi/L)	n/a	1.42	65	0.676	0.3721	0	None	No	0.05	Inter
Fluoride (mg/L)	n/a	0.3	70	n/a	n/a	52.86	n/a	n/a	0.02758	NP Inter(normality)
Lead (mg/L)	n/a	0.005	65	n/a	n/a	75.38	n/a	n/a	0.03565	NP Inter(NDs)
Lithium (mg/L)	n/a	0.089	65	n/a	n/a	47.69	n/a	n/a	0.03565	NP Inter(normality)
Mercury (mg/L)	n/a	0.0005	55	n/a	n/a	90.91	n/a	n/a	0.05954	NP Inter(NDs)
Molybdenum (mg/L)	n/a	0.01	65	n/a	n/a	70.77	n/a	n/a	0.03565	NP Inter(normality)
Selenium (mg/L)	n/a	0.01	65	n/a	n/a	100	n/a	n/a	0.03565	NP Inter(NDs)
Thallium (mg/L)	n/a	0.001	65	n/a	n/a	100	n/a	n/a	0.03565	NP Inter(NDs)

<b>PLANT BRANCH POND E GWPS</b>			
<b>Constituent Name</b>	<b>MCL</b>	<b>Background Limit</b>	<b>GWPS</b>
Antimony, Total (mg/L)	0.006	0.003	0.006
Arsenic, Total (mg/L)	0.01	0.005	0.01
Barium, Total (mg/L)	2	0.063	2
Beryllium, Total (mg/L)	0.004	0.003	0.004
Cadmium, Total (mg/L)	0.005	0.0025	0.005
Chromium, Total (mg/L)	0.1	0.014	0.1
Cobalt, Total (mg/L)	n/a	0.005	0.005
Combined Radium, Total (pCi/L)	5	1.42	5
Fluoride, Total (mg/L)	4	0.3	4
Lead, Total (mg/L)	n/a	0.005	0.005
Lithium, Total (mg/L)	n/a	0.089	0.089
Mercury, Total (mg/L)	0.002	0.0005	0.002
Molybdenum, Total (mg/L)	n/a	0.01	0.01
Selenium, Total (mg/L)	0.05	0.01	0.05
Thallium, Total (mg/L)	0.002	0.001	0.002

*\*MCL = Maximum Contaminant Level*

*\*GWPS = Groundwater Protection Standard*

# Confidence Interval Summary - Significant Results

Plant Branch    Client: Southern Company    Data: Plant Branch AP    Printed 11/1/2020, 11:55 AM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Compliance</u>	<u>Sig. N</u>	<u>Mean</u>	<u>Std. Dev.</u>	<u>%NDs</u>	<u>ND Adj.</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Beryllium (mg/L)	BRGWC-38S	0.009752	0.008206	0.004	Yes 14	0.008979	0.001091	0	None	No	0.01	Param.
Cobalt (mg/L)	BRGWC-33S	0.05413	0.04206	0.005	Yes 14	0.04809	0.008521	0	None	No	0.01	Param.
Cobalt (mg/L)	BRGWC-38S	0.2679	0.2199	0.005	Yes 13	0.2439	0.03224	0	None	No	0.01	Param.

# Confidence Interval Summary - All Results

Plant Branch    Client: Southern Company    Data: Plant Branch AP    Printed 11/1/2020, 11:55 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig. N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	BRGWC-17S	0.003	0.0009	0.006	No 13	0.002838	0.0005824	92.31	None	No	0.01	NP (NDs)
Antimony (mg/L)	BRGWC-32S	0.003	0.0014	0.006	No 13	0.002877	0.0004438	92.31	None	No	0.01	NP (NDs)
Antimony (mg/L)	BRGWC-36S	0.003	0.00049	0.006	No 13	0.002418	0.001106	76.92	None	No	0.01	NP (NDs)
Antimony (mg/L)	BRGWC-38S	0.003	0.0007	0.006	No 13	0.002823	0.0006379	92.31	None	No	0.01	NP (NDs)
Arsenic (mg/L)	BRGWC-17S	0.005	0.0006	0.01	No 13	0.003862	0.001897	69.23	None	No	0.01	NP (normality)
Arsenic (mg/L)	BRGWC-32S	0.005	0.00053	0.01	No 13	0.004656	0.00124	92.31	None	No	0.01	NP (NDs)
Arsenic (mg/L)	BRGWC-33S	0.005	0.0006	0.01	No 14	0.004369	0.001605	85.71	None	No	0.01	NP (NDs)
Arsenic (mg/L)	BRGWC-35S	0.005	0.00044	0.01	No 13	0.003957	0.001983	76.92	None	No	0.01	NP (NDs)
Arsenic (mg/L)	BRGWC-36S	0.005	0.0007	0.01	No 13	0.004012	0.001882	76.92	None	No	0.01	NP (NDs)
Arsenic (mg/L)	BRGWC-38S	0.003132	0.001411	0.01	No 13	0.002783	0.001583	15.38	Kaplan-Meier	sqrt(x)	0.01	Param.
Barium (mg/L)	BRGWC-17S	0.04297	0.03814	2	No 13	0.04055	0.003253	0	None	No	0.01	Param.
Barium (mg/L)	BRGWC-32S	0.04652	0.02982	2	No 13	0.03817	0.01123	0	None	No	0.01	Param.
Barium (mg/L)	BRGWC-33S	0.02281	0.02023	2	No 14	0.02152	0.001822	0	None	No	0.01	Param.
Barium (mg/L)	BRGWC-34S	0.03631	0.02575	2	No 13	0.03103	0.007105	0	None	No	0.01	Param.
Barium (mg/L)	BRGWC-35S	0.0627	0.0382	2	No 13	0.05178	0.02009	0	None	ln(x)	0.01	Param.
Barium (mg/L)	BRGWC-36S	0.04729	0.03286	2	No 13	0.04039	0.01069	0	None	x^(1/3)	0.01	Param.
Barium (mg/L)	BRGWC-38S	0.0272	0.01589	2	No 13	0.02192	0.008686	7.692	None	x^(1/3)	0.01	Param.
Beryllium (mg/L)	BRGWC-33S	0.0022	0.0017	0.004	No 14	0.002507	0.002189	14.29	None	No	0.01	NP (normality)
Beryllium (mg/L)	BRGWC-34S	0.003	0.00012	0.004	No 13	0.001875	0.003691	23.08	None	No	0.01	NP (normality)
Beryllium (mg/L)	BRGWC-35S	0.003	0.0001	0.004	No 13	0.001868	0.003694	23.08	None	No	0.01	NP (normality)
Beryllium (mg/L)	BRGWC-36S	0.01	0.00009	0.004	No 14	0.003133	0.004571	35.71	None	No	0.01	NP (normality)
<b>Beryllium (mg/L)</b>	<b>BRGWC-38S</b>	<b>0.009752</b>	<b>0.008206</b>	<b>0.004</b>	<b>Yes 14</b>	<b>0.008979</b>	<b>0.001091</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
Cadmium (mg/L)	BRGWC-32S	0.0025	0.001	0.005	No 14	0.002051	0.0009155	85.71	None	No	0.01	NP (NDs)
Cadmium (mg/L)	BRGWC-33S	0.0006	0.00032	0.005	No 14	0.00059	0.0005785	14.29	None	No	0.01	NP (normality)
Cadmium (mg/L)	BRGWC-34S	0.001	0.00017	0.005	No 13	0.0007062	0.0008324	23.08	None	No	0.01	NP (normality)
Cadmium (mg/L)	BRGWC-36S	0.0025	0.0001	0.005	No 14	0.002156	0.0008752	85.71	None	No	0.01	NP (NDs)
Cadmium (mg/L)	BRGWC-38S	0.001	0.0005	0.005	No 13	0.0007615	0.0005414	15.38	None	No	0.01	NP (normality)
Chromium (mg/L)	BRGWC-17S	0.01324	0.00978	0.1	No 13	0.01155	0.002474	0	None	sqrt(x)	0.01	Param.
Chromium (mg/L)	BRGWC-32S	0.01	0.0011	0.1	No 13	0.004808	0.004293	38.46	None	No	0.01	NP (normality)
Chromium (mg/L)	BRGWC-33S	0.01	0.00049	0.1	No 14	0.009321	0.002542	92.86	None	No	0.01	NP (NDs)
Chromium (mg/L)	BRGWC-35S	0.006756	0.004114	0.1	No 13	0.006315	0.00236	15.38	Kaplan-Meier	No	0.01	Param.
Chromium (mg/L)	BRGWC-36S	0.008908	0.007461	0.1	No 13	0.008185	0.0009728	7.692	None	No	0.01	Param.
Chromium (mg/L)	BRGWC-38S	0.0044	0.0028	0.1	No 13	0.004215	0.001921	7.692	None	No	0.01	NP (normality)
Cobalt (mg/L)	BRGWC-32S	0.01	0.0025	0.005	No 14	0.005179	0.001539	92.86	None	No	0.01	NP (NDs)
<b>Cobalt (mg/L)</b>	<b>BRGWC-33S</b>	<b>0.05413</b>	<b>0.04206</b>	<b>0.005</b>	<b>Yes 14</b>	<b>0.04809</b>	<b>0.008521</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
Cobalt (mg/L)	BRGWC-34S	0.005	0.0029	0.005	No 13	0.004238	0.001843	15.38	None	No	0.01	NP (normality)
Cobalt (mg/L)	BRGWC-35S	0.01	0.0004	0.005	No 13	0.004138	0.002638	69.23	None	No	0.01	NP (normality)
<b>Cobalt (mg/L)</b>	<b>BRGWC-38S</b>	<b>0.2679</b>	<b>0.2199</b>	<b>0.005</b>	<b>Yes 13</b>	<b>0.2439</b>	<b>0.03224</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
Combined Radium 226 + 228 (pCi/L)	BRGWC-17S	0.8565	0.3066	5	No 13	0.5816	0.3698	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BRGWC-32S	1.163	0.4582	5	No 13	0.8107	0.474	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BRGWC-33S	1.316	0.6697	5	No 13	0.9926	0.4342	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BRGWC-34S	1.113	0.7181	5	No 13	0.9157	0.2657	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BRGWC-35S	1.114	0.4588	5	No 13	0.7863	0.4404	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BRGWC-36S	1.289	0.6698	5	No 13	0.9795	0.4165	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BRGWC-38S	3.222	2.02	5	No 13	2.621	0.8083	0	None	No	0.01	Param.
Fluoride (mg/L)	BRGWC-17S	0.1689	0.07726	4	No 14	0.1269	0.07314	7.143	None	sqrt(x)	0.01	Param.
Fluoride (mg/L)	BRGWC-32S	0.15	0.09	4	No 14	0.1257	0.06248	64.29	None	No	0.01	NP (normality)
Fluoride (mg/L)	BRGWC-33S	0.2587	0.1184	4	No 15	0.1955	0.1142	6.667	None	sqrt(x)	0.01	Param.
Fluoride (mg/L)	BRGWC-34S	0.1657	0.07895	4	No 14	0.1324	0.08901	14.29	None	ln(x)	0.01	Param.
Fluoride (mg/L)	BRGWC-35S	0.1302	0.05494	4	No 14	0.1074	0.07988	21.43	Kaplan-Meier	ln(x)	0.01	Param.
Fluoride (mg/L)	BRGWC-36S	0.15	0.07	4	No 14	0.1265	0.1172	57.14	None	No	0.01	NP (normality)
Fluoride (mg/L)	BRGWC-38S	0.9706	0.7063	4	No 14	0.8493	0.219	0	None	ln(x)	0.01	Param.
Lead (mg/L)	BRGWC-17S	0.005	0.000054	0.005	No 13	0.00462	0.001372	92.31	None	No	0.01	NP (NDs)
Lead (mg/L)	BRGWC-33S	0.005	0.00007	0.005	No 14	0.001501	0.002297	28.57	None	No	0.01	NP (normality)
Lead (mg/L)	BRGWC-34S	0.005	0.0003	0.005	No 13	0.004261	0.001805	84.62	None	No	0.01	NP (NDs)



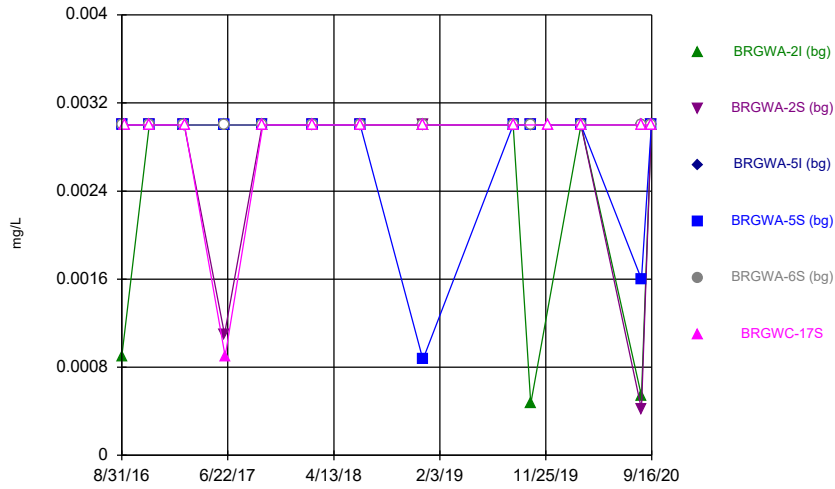
# Confidence Interval Summary - All Results

Plant Branch    Client: Southern Company    Data: Plant Branch AP    Printed 11/1/2020, 11:55 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Lead (mg/L)	BRGWC-35S	0.005	0.00012	0.005	No	13	0.003871	0.002146	76.92	None	No	0.01	NP (NDs)
Lead (mg/L)	BRGWC-36S	0.005	0.000047	0.005	No	13	0.004619	0.001374	92.31	None	No	0.01	NP (NDs)
Lead (mg/L)	BRGWC-38S	0.0005	0.00032	0.005	No	13	0.0007431	0.00128	7.692	None	No	0.01	NP (normality)
Lithium (mg/L)	BRGWC-17S	0.03	0.00097	0.089	No	13	0.02107	0.01394	69.23	None	No	0.01	NP (normality)
Lithium (mg/L)	BRGWC-32S	0.03	0.002	0.089	No	13	0.006446	0.01045	15.38	None	No	0.01	NP (normality)
Lithium (mg/L)	BRGWC-33S	0.011	0.0092	0.089	No	14	0.01141	0.005392	7.143	None	No	0.01	NP (normality)
Lithium (mg/L)	BRGWC-34S	0.03	0.00082	0.089	No	13	0.02103	0.014	69.23	None	No	0.01	NP (normality)
Lithium (mg/L)	BRGWC-35S	0.0023	0.002	0.089	No	13	0.004277	0.007729	7.692	None	No	0.01	NP (normality)
Lithium (mg/L)	BRGWC-36S	0.03	0.0022	0.089	No	13	0.006685	0.01035	15.38	None	No	0.01	NP (normality)
Lithium (mg/L)	BRGWC-38S	0.0254	0.02	0.089	No	13	0.02225	0.002833	7.692	None	No	0.01	NP (normality)
Mercury (mg/L)	BRGWC-17S	0.0005	0.000084	0.002	No	11	0.0004222	0.0001732	81.82	None	No	0.006	NP (NDs)
Mercury (mg/L)	BRGWC-32S	0.0005	0.00009	0.002	No	11	0.0003884	0.0001912	72.73	None	No	0.006	NP (normality)
Mercury (mg/L)	BRGWC-33S	0.0005	0.00007	0.002	No	12	0.0004258	0.0001733	83.33	None	No	0.01	NP (NDs)
Mercury (mg/L)	BRGWC-34S	0.0005	0.00007	0.002	No	11	0.0003845	0.0001986	72.73	None	No	0.006	NP (normality)
Mercury (mg/L)	BRGWC-35S	0.0005	0.00013	0.002	No	11	0.0004273	0.0001624	81.82	None	No	0.006	NP (NDs)
Mercury (mg/L)	BRGWC-36S	0.0005	0.00013	0.002	No	11	0.0004273	0.0001624	81.82	None	No	0.006	NP (NDs)
Mercury (mg/L)	BRGWC-38S	0.0001571	0.00008094	0.002	No	11	0.0002	0.0001536	18.18	Kaplan-Meier In(x)		0.01	Param.
Selenium (mg/L)	BRGWC-17S	0.01	0.0018	0.05	No	13	0.004769	0.003691	30.77	None	No	0.01	NP (normality)
Selenium (mg/L)	BRGWC-32S	0.1	0.0019	0.05	No	14	0.04472	0.04778	28.57	None	No	0.01	NP (normality)
Selenium (mg/L)	BRGWC-33S	0.01	0.0018	0.05	No	14	0.006421	0.003759	50	None	No	0.01	NP (normality)
Selenium (mg/L)	BRGWC-36S	0.006061	0.00315	0.05	No	13	0.004685	0.002163	7.692	None	sqrt(x)	0.01	Param.
Selenium (mg/L)	BRGWC-38S	0.04305	0.03317	0.05	No	13	0.03811	0.006644	0	None	No	0.01	Param.
Thallium (mg/L)	BRGWC-17S	0.001	0.000066	0.002	No	13	0.0009282	0.000259	92.31	None	No	0.01	NP (NDs)
Thallium (mg/L)	BRGWC-33S	0.00024	0.00018	0.002	No	14	0.0002536	0.000216	7.143	None	No	0.01	NP (normality)
Thallium (mg/L)	BRGWC-38S	0.001	0.00018	0.002	No	13	0.0004085	0.0003404	23.08	None	No	0.01	NP (normality)

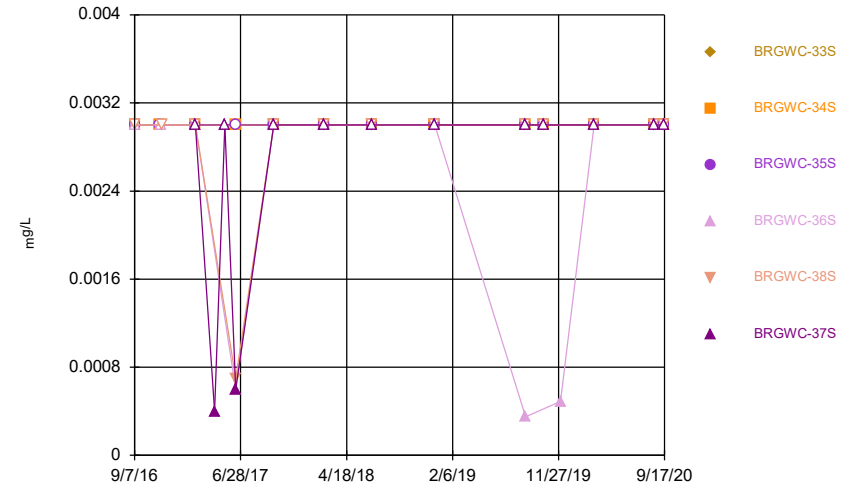
FIGURE A.

Time Series



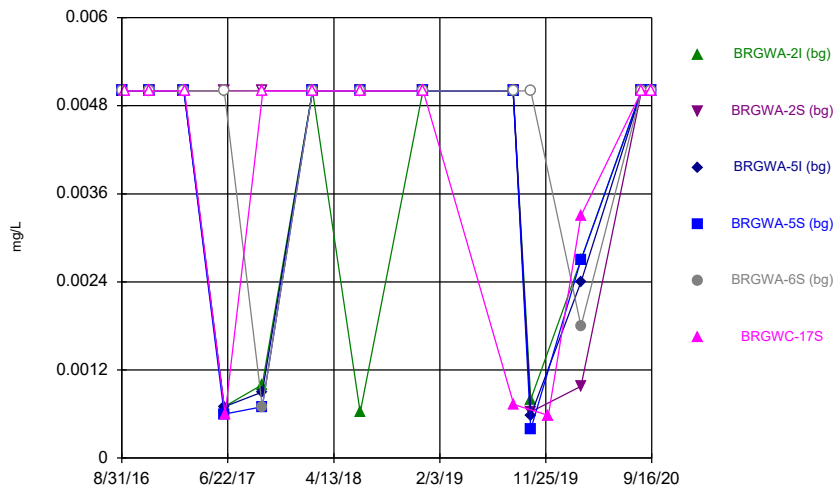
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Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



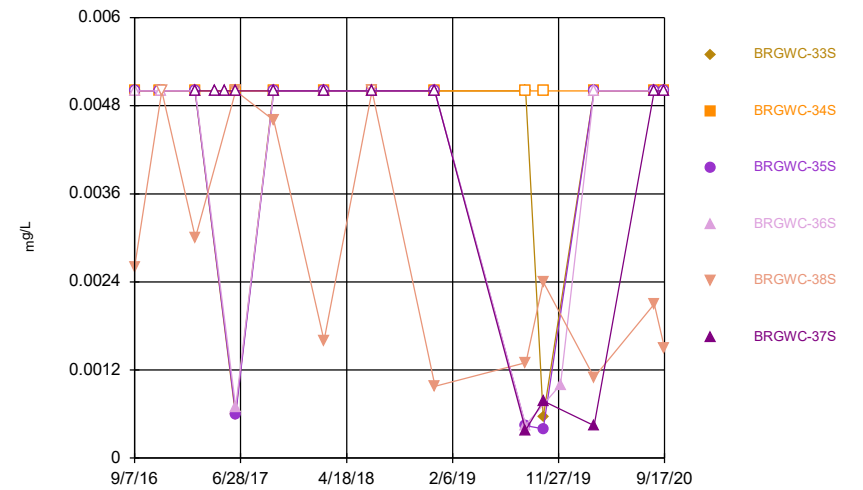
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Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



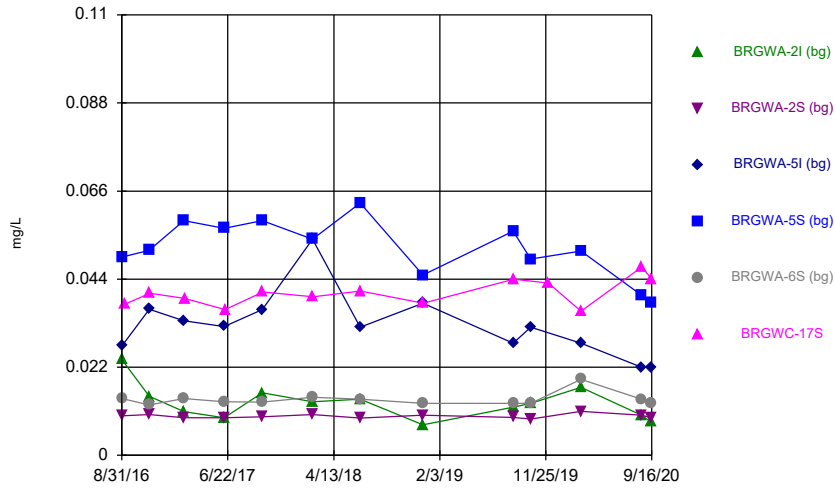
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Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



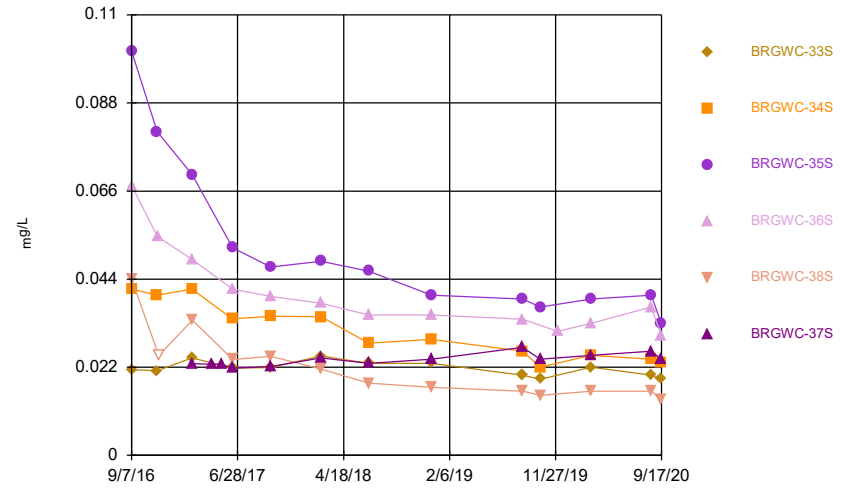
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Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



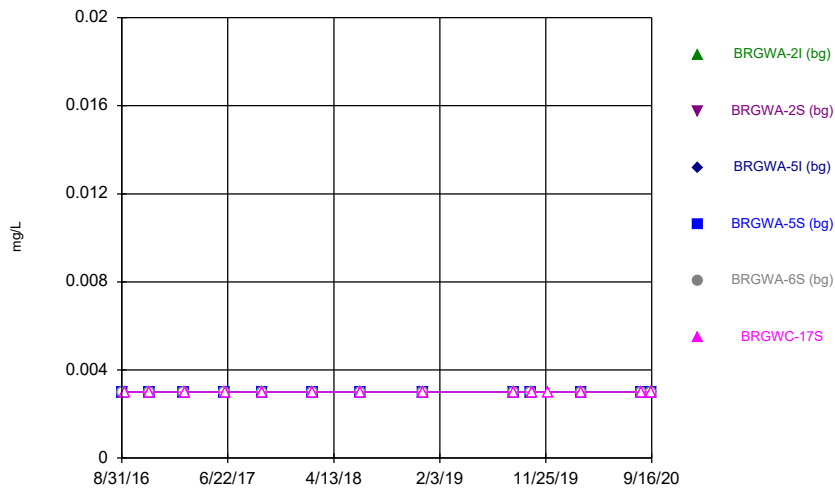
Constituent: Barium Analysis Run 11/1/2020 11:44 AM View: Descriptive Pond E  
 Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



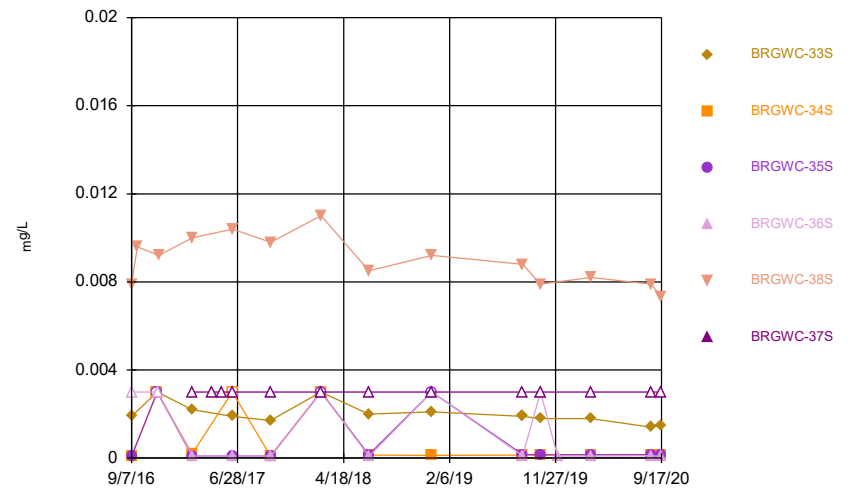
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 Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



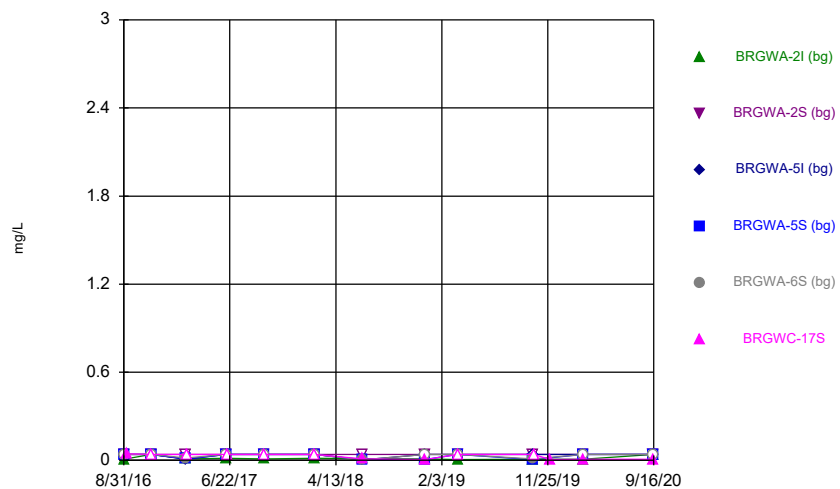
Constituent: Beryllium Analysis Run 11/1/2020 11:44 AM View: Descriptive Pond E  
 Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



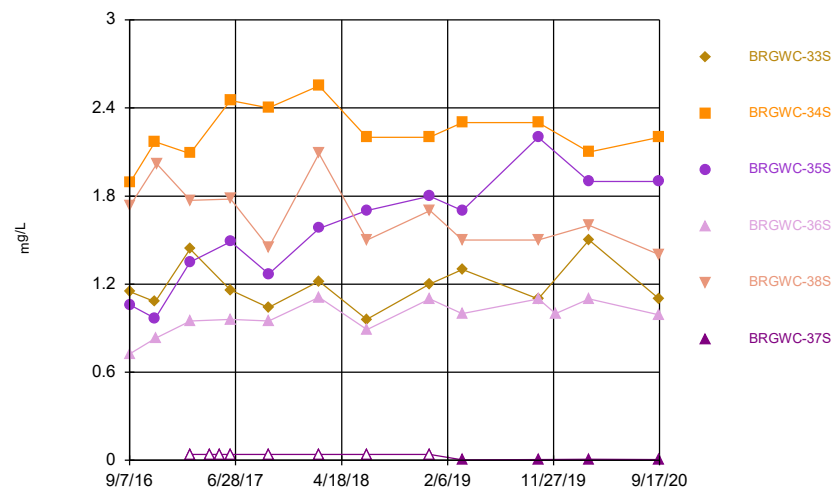
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 Plant Branch Client: Southern Company Data: Plant Branch AP

### Time Series



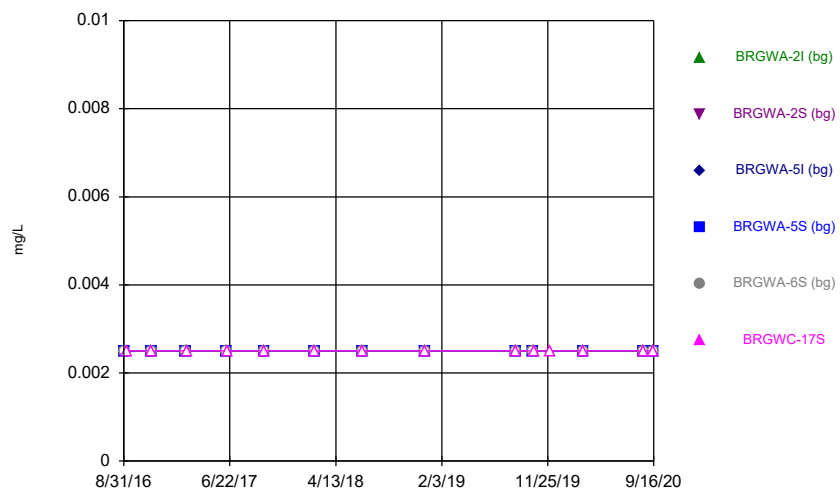
Constituent: Boron Analysis Run 11/1/2020 11:44 AM View: Descriptive Pond E  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Time Series



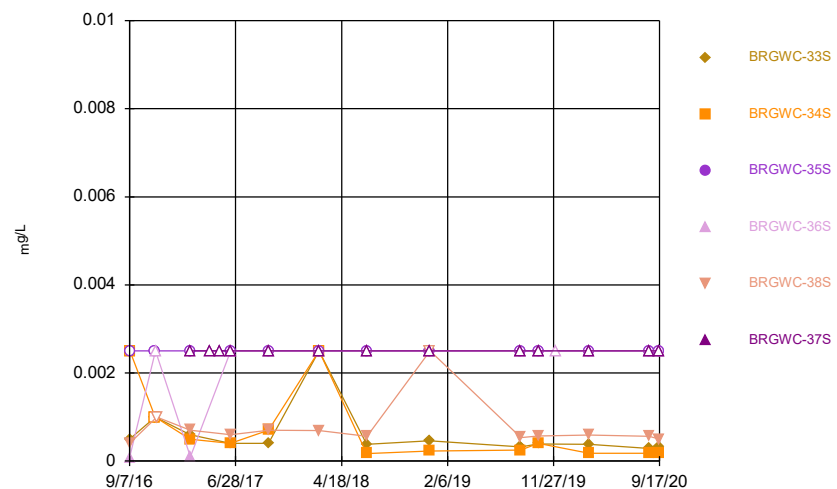
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Plant Branch Client: Southern Company Data: Plant Branch AP

### Time Series



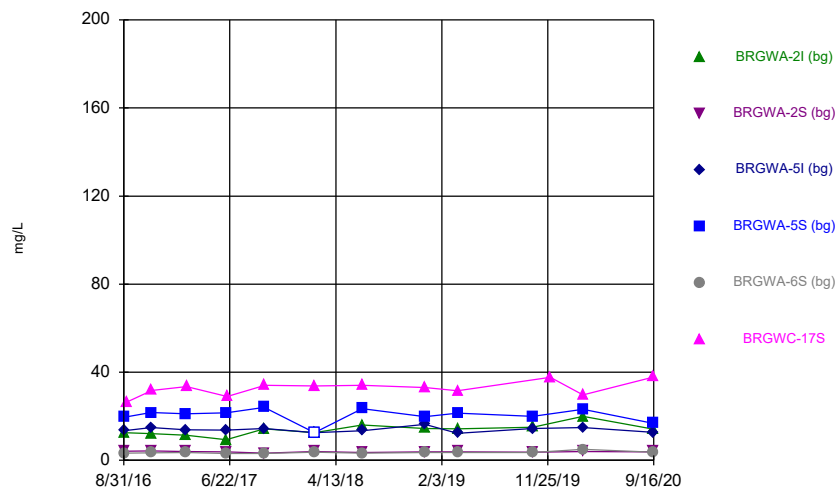
Constituent: Cadmium Analysis Run 11/1/2020 11:44 AM View: Descriptive Pond E  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Time Series



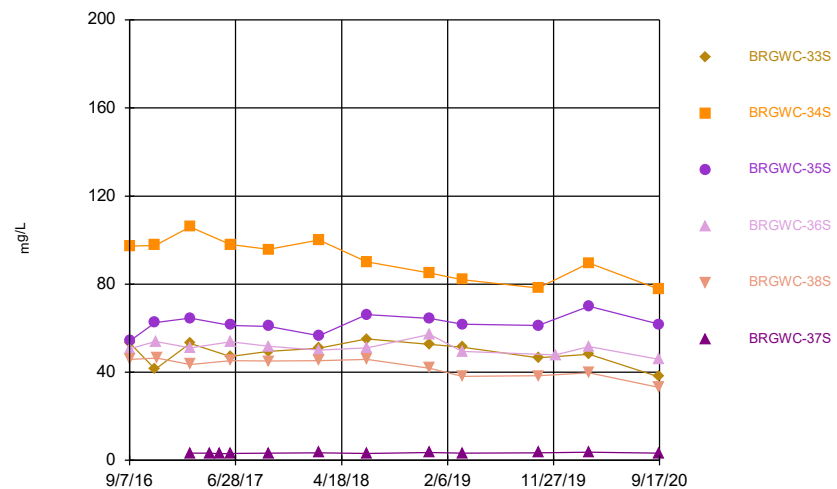
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Plant Branch Client: Southern Company Data: Plant Branch AP

### Time Series



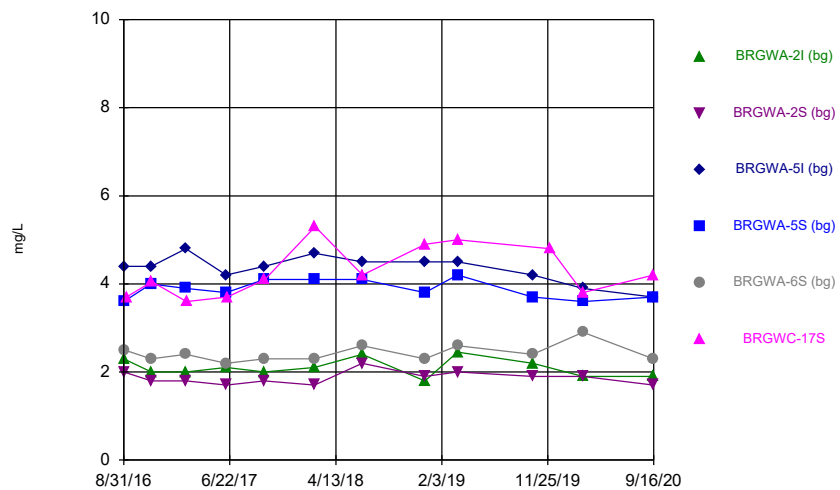
Constituent: Calcium Analysis Run 11/1/2020 11:44 AM View: Descriptive Pond E  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Time Series



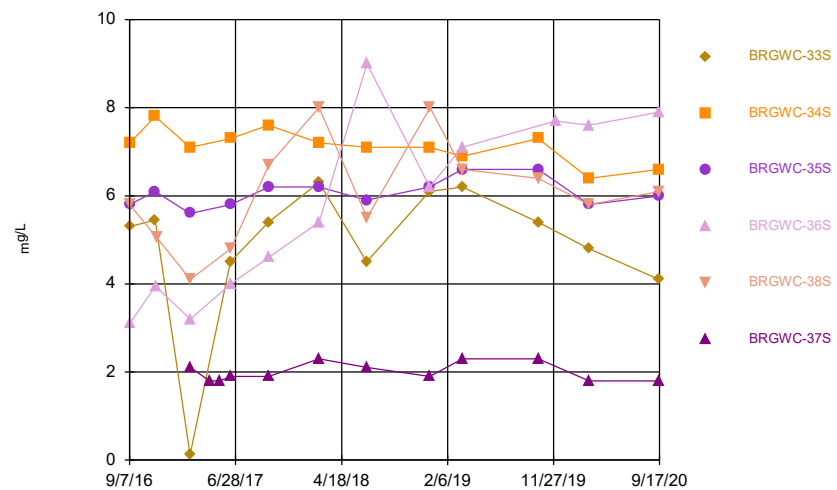
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Plant Branch Client: Southern Company Data: Plant Branch AP

### Time Series



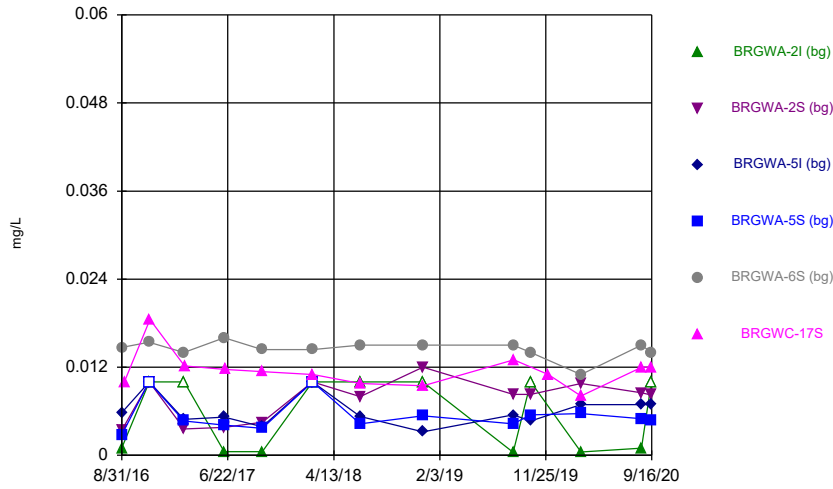
Constituent: Chloride, Total Analysis Run 11/1/2020 11:44 AM View: Descriptive Pond E  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Time Series



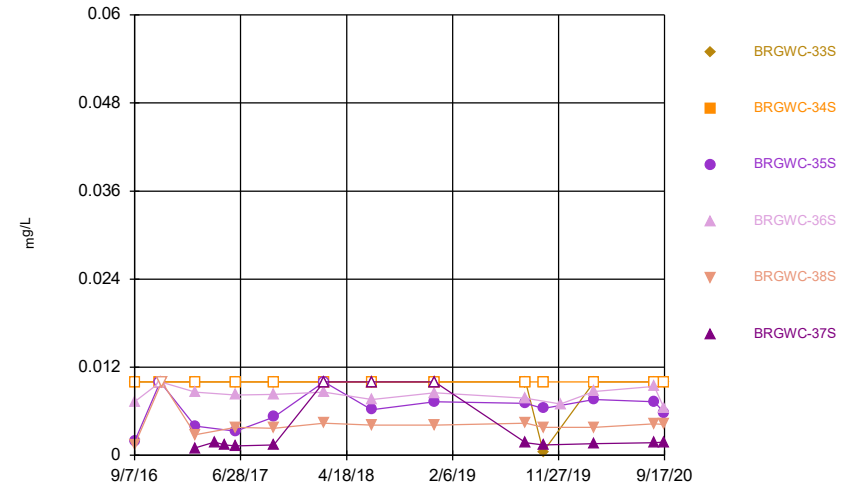
Constituent: Chloride, Total Analysis Run 11/1/2020 11:44 AM View: Descriptive Pond E  
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



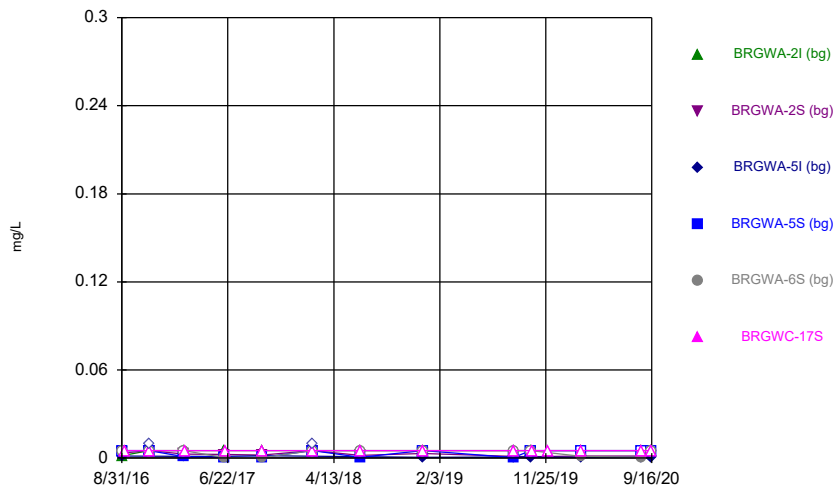
Constituent: Chromium Analysis Run 11/1/2020 11:44 AM View: Descriptive Pond E  
 Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



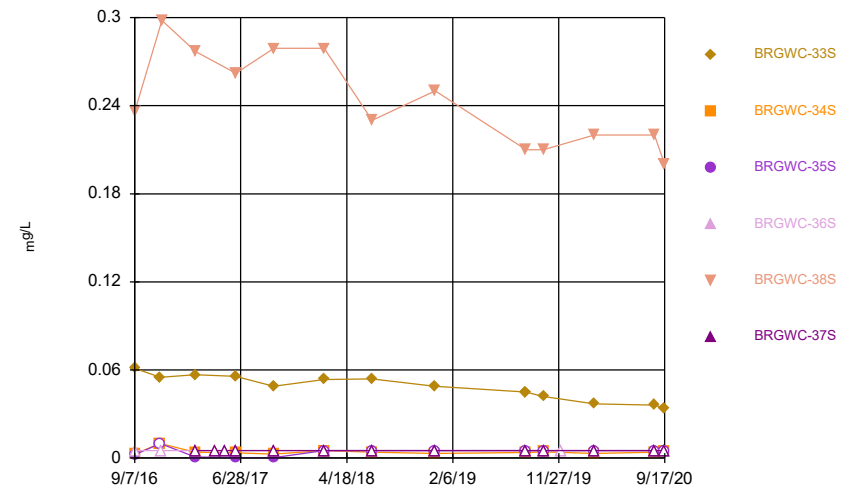
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 Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



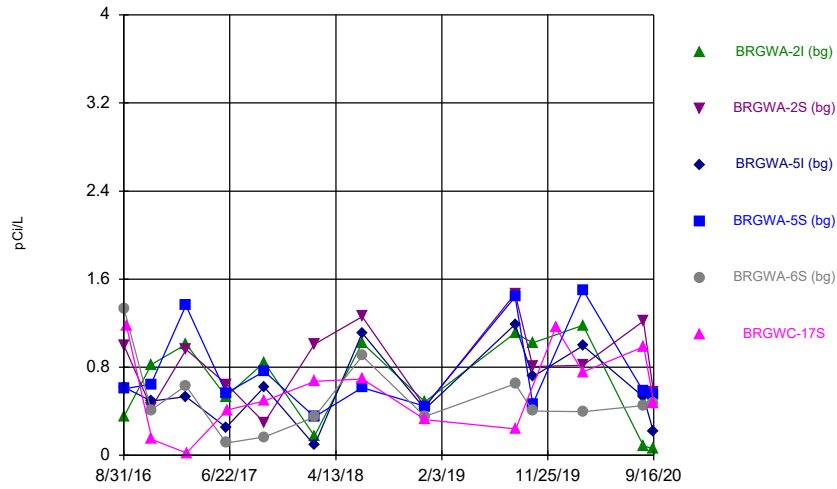
Constituent: Cobalt Analysis Run 11/1/2020 11:44 AM View: Descriptive Pond E  
 Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



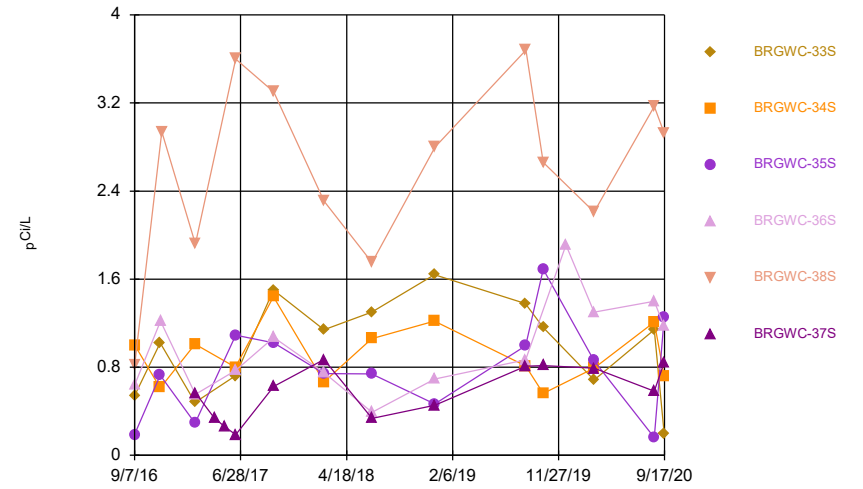
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 Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



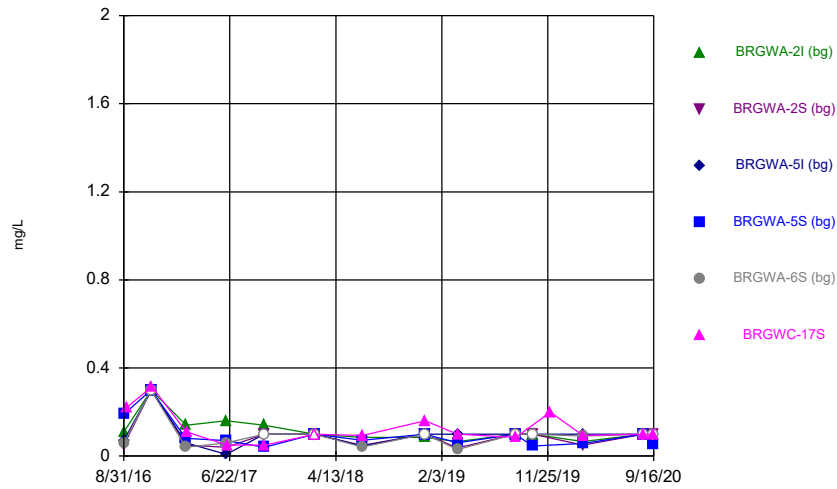
Constituent: Combined Radium 226 + 228 Analysis Run 11/1/2020 11:44 AM View: Descriptive Pond E  
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



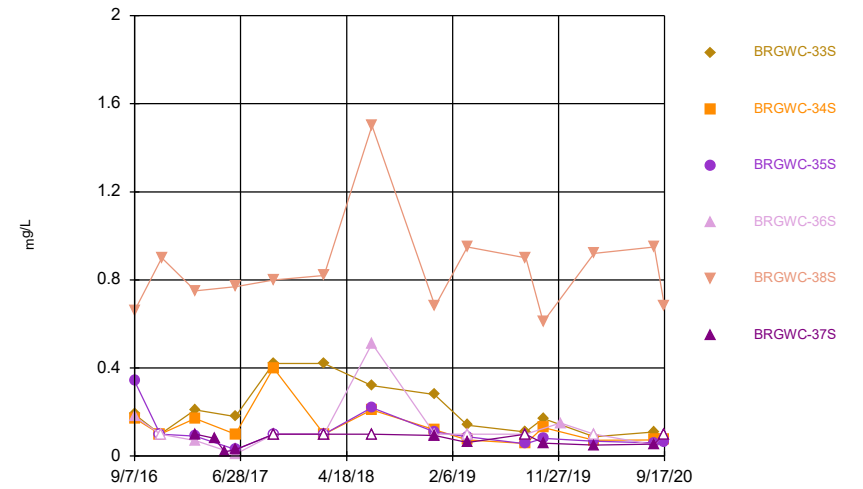
Constituent: Combined Radium 226 + 228 Analysis Run 11/1/2020 11:44 AM View: Descriptive Pond E  
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



Constituent: Fluoride Analysis Run 11/1/2020 11:44 AM View: Descriptive Pond E  
Plant Branch Client: Southern Company Data: Plant Branch AP

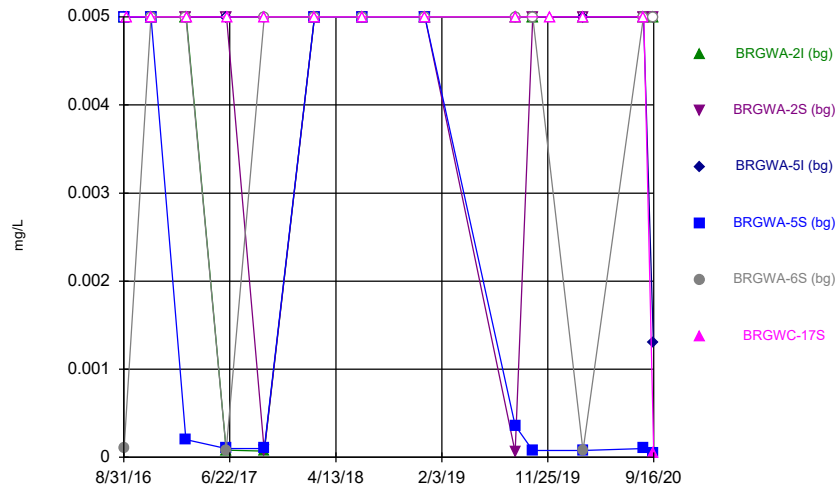
Time Series



Constituent: Fluoride Analysis Run 11/1/2020 11:44 AM View: Descriptive Pond E  
Plant Branch Client: Southern Company Data: Plant Branch AP

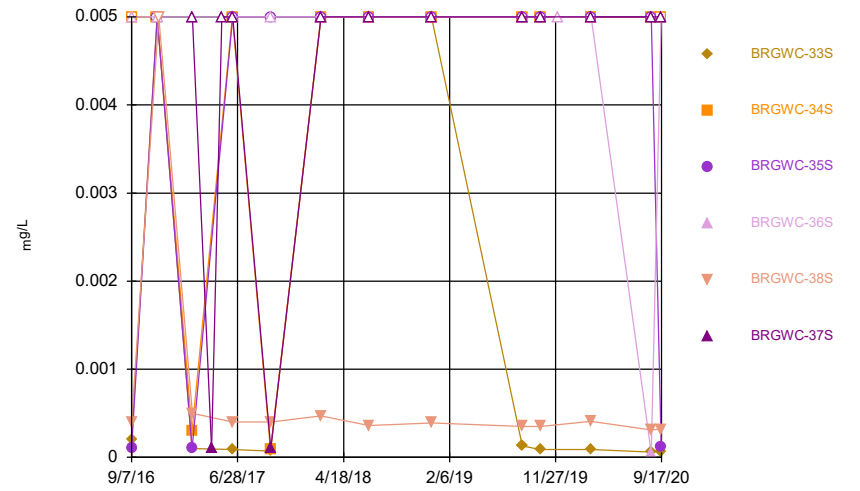


Time Series



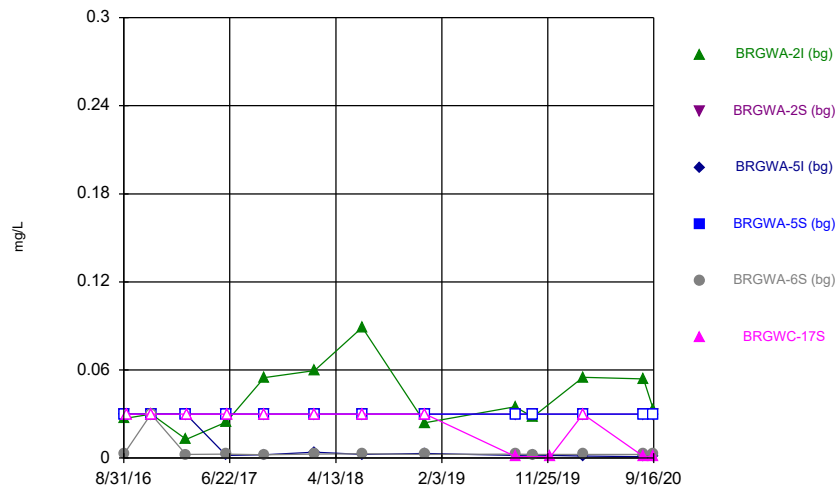
Constituent: Lead Analysis Run 11/1/2020 11:44 AM View: Descriptive Pond E  
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



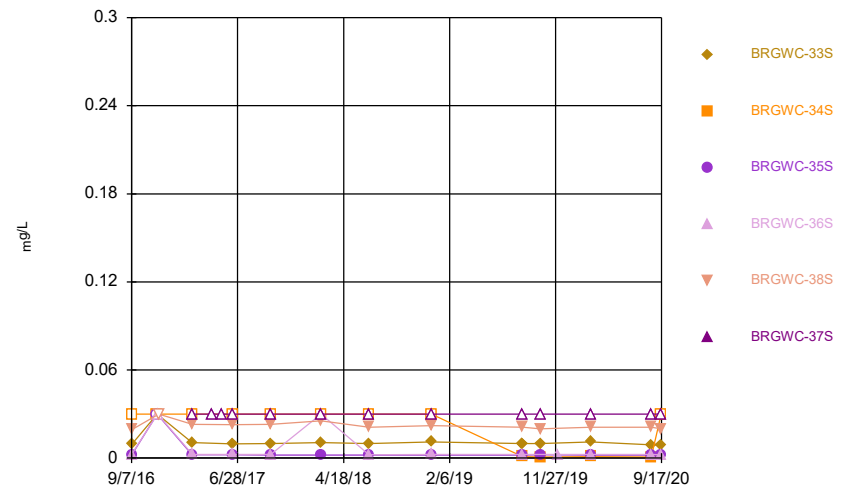
Constituent: Lead Analysis Run 11/1/2020 11:44 AM View: Descriptive Pond E  
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



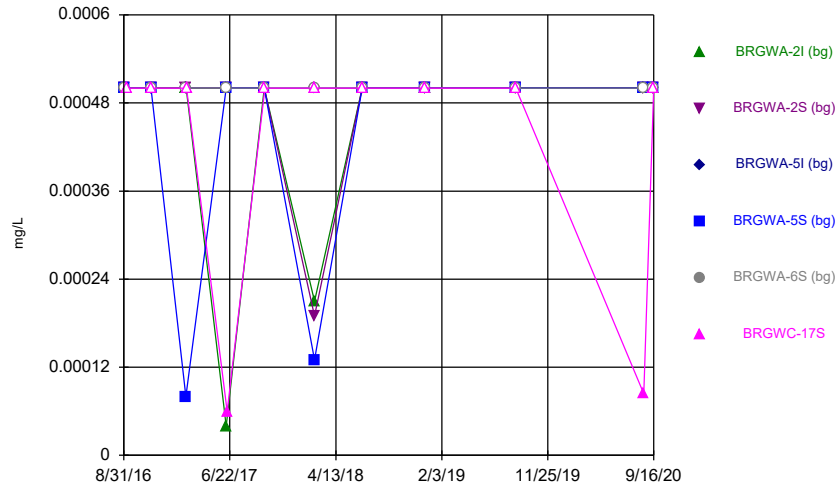
Constituent: Lithium Analysis Run 11/1/2020 11:44 AM View: Descriptive Pond E  
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



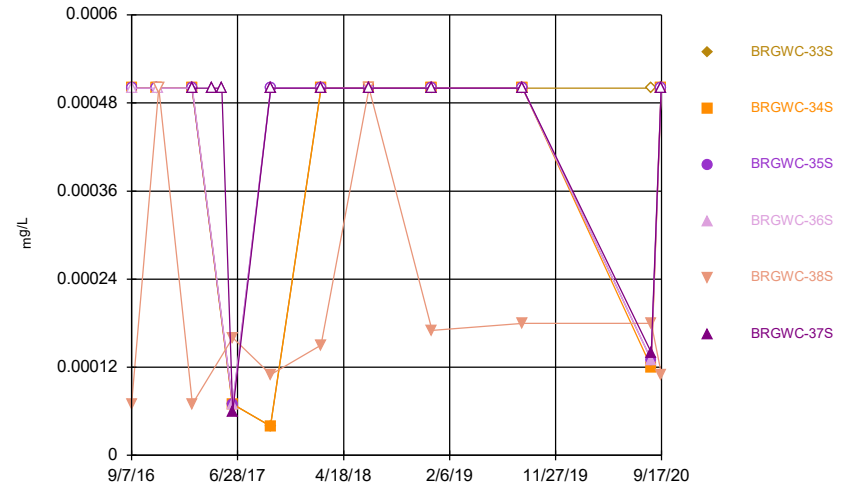
Constituent: Lithium Analysis Run 11/1/2020 11:44 AM View: Descriptive Pond E  
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



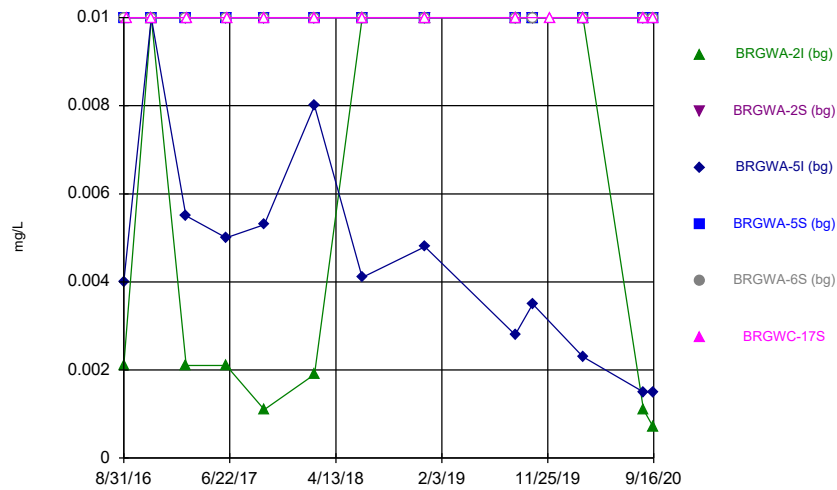
Constituent: Mercury Analysis Run 11/1/2020 11:44 AM View: Descriptive Pond E  
 Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



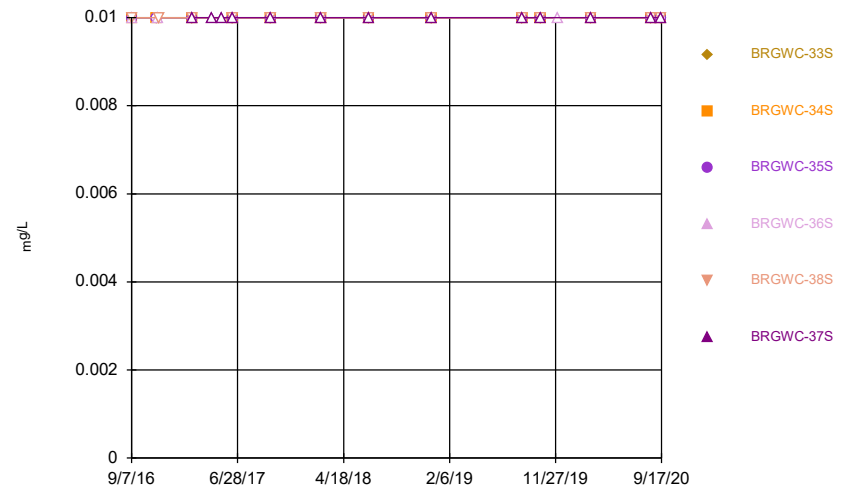
Constituent: Mercury Analysis Run 11/1/2020 11:44 AM View: Descriptive Pond E  
 Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



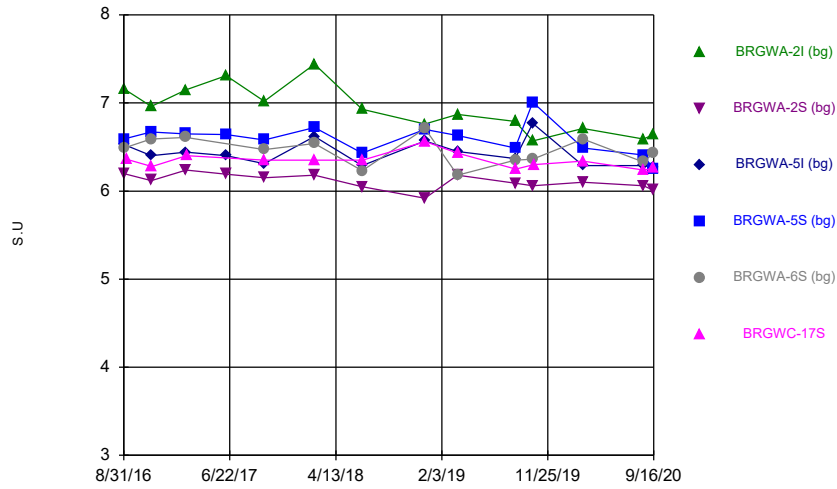
Constituent: Molybdenum Analysis Run 11/1/2020 11:44 AM View: Descriptive Pond E  
 Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



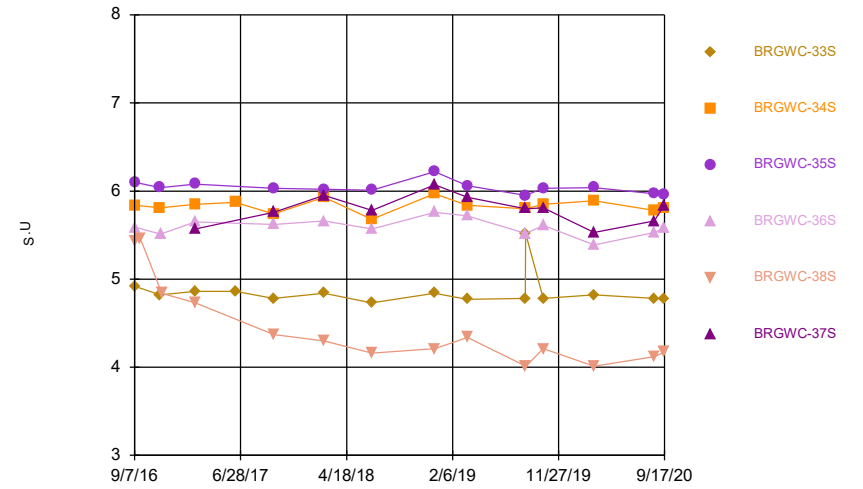
Constituent: Molybdenum Analysis Run 11/1/2020 11:44 AM View: Descriptive Pond E  
 Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



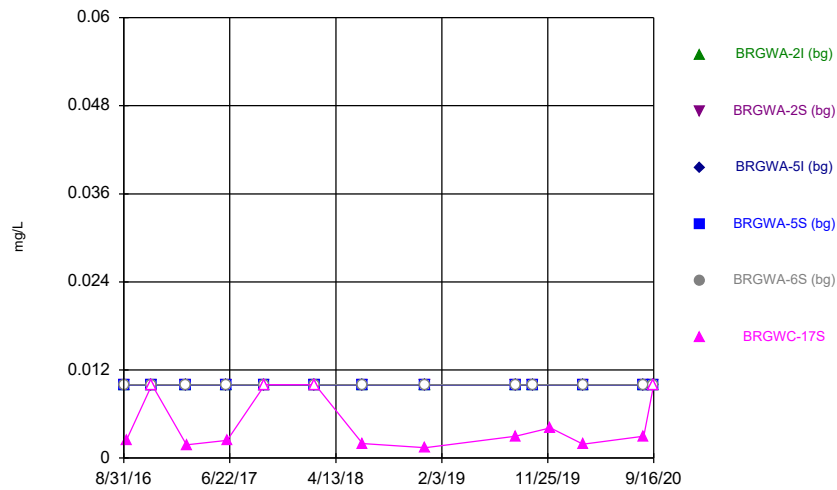
Constituent: pH, Field Analysis Run 11/1/2020 11:44 AM View: Descriptive Pond E  
 Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



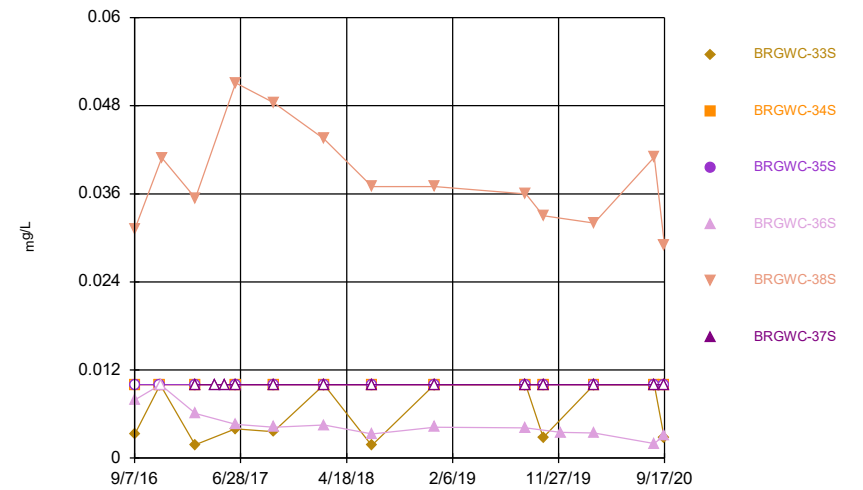
Constituent: pH, Field Analysis Run 11/1/2020 11:44 AM View: Descriptive Pond E  
 Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



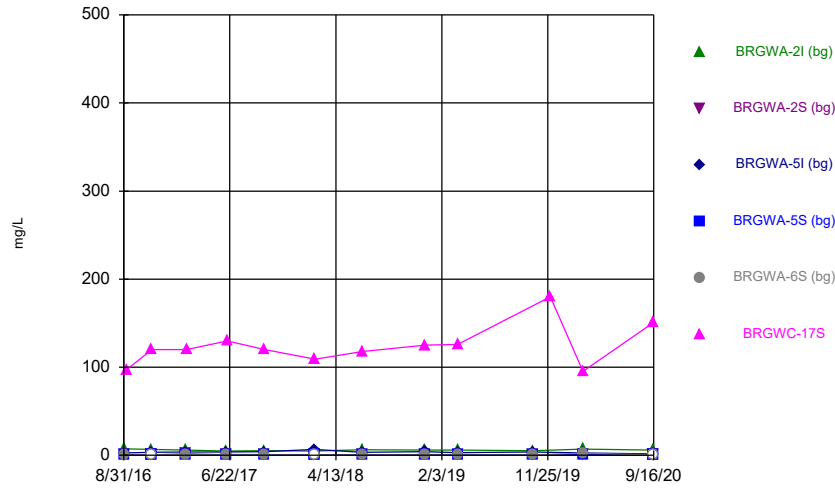
Constituent: Selenium Analysis Run 11/1/2020 11:44 AM View: Descriptive Pond E  
 Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



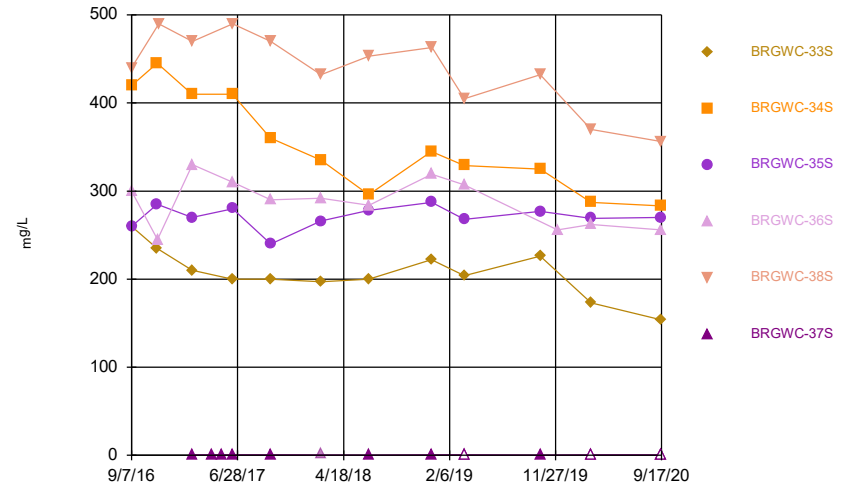
Constituent: Selenium Analysis Run 11/1/2020 11:44 AM View: Descriptive Pond E  
 Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



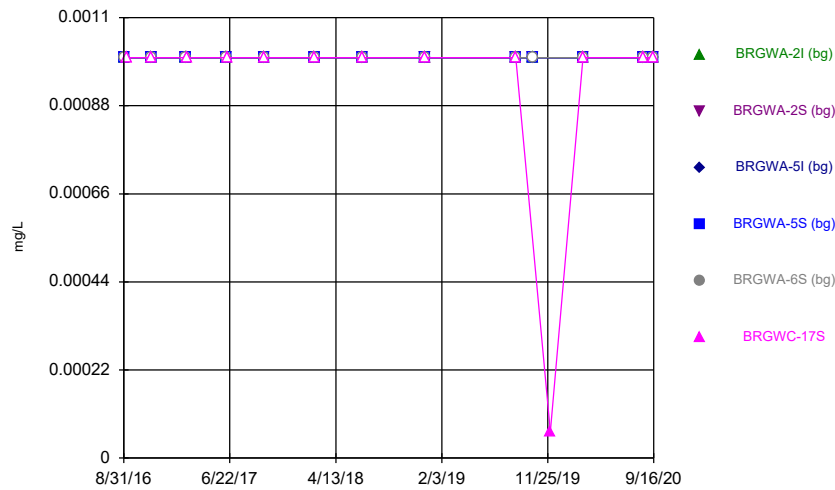
Constituent: Sulfate as SO4 Analysis Run 11/1/2020 11:44 AM View: Descriptive Pond E  
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



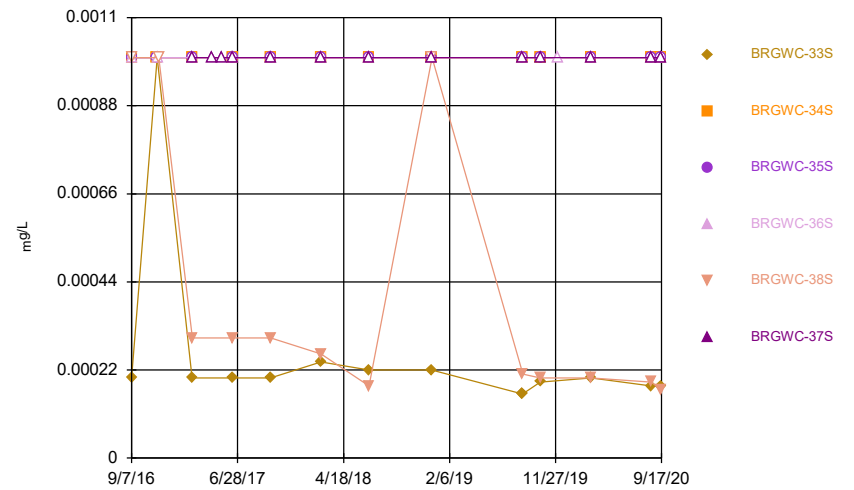
Constituent: Sulfate as SO4 Analysis Run 11/1/2020 11:44 AM View: Descriptive Pond E  
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



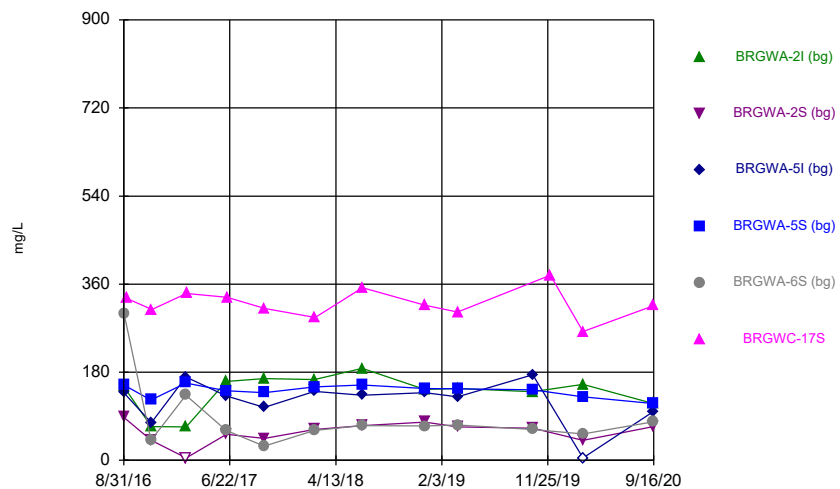
Constituent: Thallium Analysis Run 11/1/2020 11:44 AM View: Descriptive Pond E  
Plant Branch Client: Southern Company Data: Plant Branch AP

Time Series



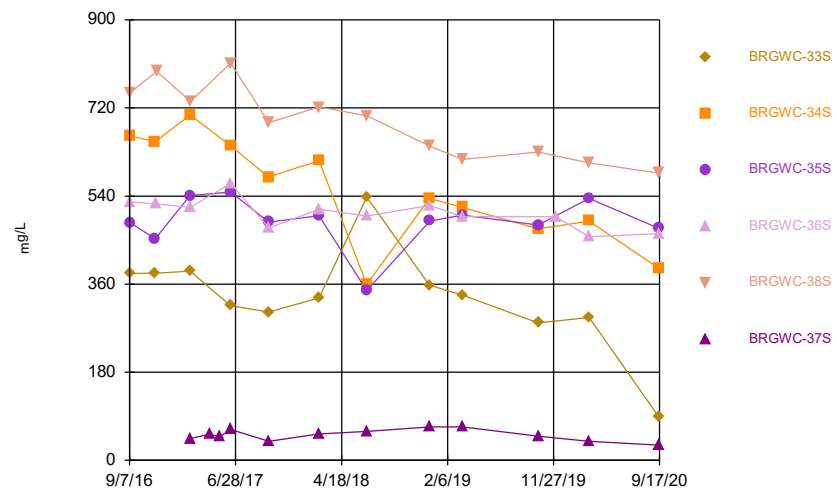
Constituent: Thallium Analysis Run 11/1/2020 11:44 AM View: Descriptive Pond E  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Time Series



Constituent: Total Dissolved Solids [TDS] Analysis Run 11/1/2020 11:44 AM View: Descriptive Pond E  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Time Series



Constituent: Total Dissolved Solids [TDS] Analysis Run 11/1/2020 11:44 AM View: Descriptive Pond E  
 Plant Branch Client: Southern Company Data: Plant Branch AP

# Time Series

Constituent: Antimony (mg/L) Analysis Run 11/1/2020 11:46 AM View: Descriptive Pond E

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-2I (bg)	BRGWA-2S (bg)	BRGWA-5I (bg)	BRGWA-5S (bg)	BRGWA-6S (bg)	BRGWC-17S	BRGWC-33S	BRGWC-34S	BRGWC-35S
8/31/2016	0.0009 (J)	<0.003	<0.003	<0.003					
9/1/2016					<0.003				
9/7/2016						<0.003	<0.003		<0.003
9/8/2016								<0.003	
11/15/2016				<0.003	<0.003				
11/16/2016	<0.003	<0.003	<0.003						
11/17/2016						<0.003	<0.003	<0.003	<0.003
2/20/2017			<0.003	<0.003	<0.003				
2/21/2017	<0.003	<0.003							
2/22/2017						<0.003	<0.003	<0.003	<0.003
6/12/2017	<0.003		<0.003	<0.003	<0.003				
6/13/2017		0.0011 (J)							
6/14/2017							<0.003	<0.003	
6/15/2017						0.0009 (J)			<0.003
9/26/2017	<0.003	<0.003	<0.003	<0.003	<0.003				
9/27/2017							<0.003	<0.003	
9/28/2017						<0.003			<0.003
2/13/2018	<0.003	<0.003	<0.003	<0.003	<0.003				
2/15/2018						<0.003	<0.003	<0.003	<0.003
6/26/2018	<0.003	<0.003	<0.003	<0.003	<0.003				
6/27/2018						<0.003	<0.003	<0.003	<0.003
12/18/2018	<0.003	<0.003	<0.003	0.00087 (J)	<0.003		<0.003	<0.003	
12/19/2018						<0.003			<0.003
8/27/2019	<0.003	<0.003	<0.003	<0.003	<0.003		<0.003		
8/28/2019						<0.003	<0.003	<0.003	<0.003
10/15/2019	0.00047 (J)	<0.003	<0.003	<0.003	<0.003				
10/16/2019							<0.003	<0.003	<0.003
12/3/2019						<0.003			
3/3/2020	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003			
3/5/2020							<0.003	<0.003	<0.003
8/18/2020	0.00054 (J)	0.00042 (J)	<0.003	0.0016 (J)	<0.003				
8/19/2020						<0.003	<0.003	<0.003	<0.003
9/15/2020	<0.003	<0.003	<0.003	<0.003	<0.003				
9/16/2020						<0.003	<0.003	<0.003	<0.003

# Time Series

Constituent: Antimony (mg/L) Analysis Run 11/1/2020 11:46 AM View: Descriptive Pond E

Plant Branch Client: Southern Company Data: Plant Branch AP

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	BRGWC-36S	BRGWC-38S	BRGWC-37S
9/7/2016	<0.003	<0.003	
11/18/2016	<0.003 (JB)		
11/21/2016		<0.003 (J)	
2/23/2017	<0.003	<0.003	<0.003
4/17/2017			0.0004 (J)
5/15/2017			<0.003
6/15/2017	0.0006 (J)	0.0007 (J)	0.0006 (J)
9/28/2017	<0.003	<0.003	<0.003
2/15/2018	<0.003	<0.003	<0.003
6/28/2018	<0.003	<0.003	<0.003
12/19/2018	<0.003		<0.003
12/20/2018		<0.003	
8/28/2019	0.00035 (J)		<0.003
8/29/2019		<0.003	
10/16/2019		<0.003	<0.003
12/3/2019	0.00049 (J)		
3/5/2020	<0.003	<0.003	<0.003
8/19/2020	<0.003	<0.003	<0.003
9/16/2020	<0.003		<0.003
9/17/2020		<0.003	

# Time Series

Constituent: Arsenic (mg/L) Analysis Run 11/1/2020 11:46 AM View: Descriptive Pond E

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-2I (bg)	BRGWA-2S (bg)	BRGWA-5I (bg)	BRGWA-5S (bg)	BRGWA-6S (bg)	BRGWC-17S	BRGWC-33S	BRGWC-34S	BRGWC-35S
8/31/2016	<0.005	<0.005	<0.005	<0.005					
9/1/2016					<0.005				
9/7/2016						<0.005	<0.005		<0.005
9/8/2016								<0.005	
11/15/2016				<0.005	<0.005				
11/16/2016	<0.005	<0.005	<0.005						
11/17/2016						<0.005	<0.005	<0.005	<0.005
2/20/2017			<0.005	<0.005	<0.005				
2/21/2017	<0.005	<0.005							
2/22/2017						<0.005	<0.005	<0.005	<0.005
6/12/2017	0.0007 (J)		0.0007 (J)	0.0006 (J)	<0.005				
6/13/2017		<0.005							
6/14/2017							0.0006 (J)	<0.005	
6/15/2017						0.0006 (J)			0.0006 (J)
9/26/2017	0.001 (J)	<0.005	0.0009 (J)	0.0007 (J)	0.0007 (J)				
9/27/2017							<0.005	<0.005	
9/28/2017						<0.005			<0.005
2/13/2018	<0.005	<0.005	<0.005	<0.005	<0.005				
2/15/2018						<0.005	<0.005	<0.005	<0.005
6/26/2018	0.00062 (J)	<0.005	<0.005	<0.005	<0.005				
6/27/2018						<0.005	<0.005	<0.005	<0.005
12/18/2018	<0.005	<0.005 (X)	<0.005 (X)	<0.005 (X)	<0.005 (X)		<0.005 (X)	<0.005	
12/19/2018						<0.005			<0.005
8/27/2019	<0.005	<0.005	<0.005	<0.005	<0.005		<0.005		
8/28/2019						0.00073 (J)	<0.005	<0.005	0.00044 (J)
10/15/2019	0.0008 (J)	0.00063 (J)	0.00058 (J)	0.00039 (J)	<0.005				
10/16/2019							0.00056 (J)	<0.005	0.0004 (J)
12/3/2019						0.00058 (J)			
3/3/2020	0.0027 (J)	0.00098 (J)	0.0024 (J)	0.0027 (J)	0.0018 (J)	0.0033 (J)			
3/5/2020							<0.005	<0.005	<0.005
8/18/2020	<0.005	<0.005	<0.005	<0.005	<0.005				
8/19/2020						<0.005	<0.005	<0.005	<0.005
9/15/2020	<0.005	<0.005	<0.005	<0.005	<0.005				
9/16/2020						<0.005	<0.005	<0.005	<0.005



# Time Series

Constituent: Arsenic (mg/L) Analysis Run 11/1/2020 11:46 AM View: Descriptive Pond E

Plant Branch Client: Southern Company Data: Plant Branch AP

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	BRGWC-36S	BRGWC-38S	BRGWC-37S
9/7/2016	<0.005	0.0026 (J)	
11/18/2016	<0.005		
11/21/2016		<0.005 (J)	
2/23/2017	<0.005	0.003 (J)	<0.005
4/17/2017			<0.005
5/15/2017			<0.005
6/15/2017	0.0007 (J)	0.005 (J)	<0.005
9/28/2017	<0.005	0.0046 (J)	<0.005
2/15/2018	<0.005	0.0016 (J)	<0.005
6/28/2018	<0.005 (X)	<0.005 (X)	<0.005 (X)
12/19/2018	<0.005		<0.005
12/20/2018		0.00098 (J)	
8/28/2019	0.00045 (J)		0.00038 (J)
8/29/2019		0.0013 (J)	
10/16/2019		0.0024 (J)	0.00078 (J)
12/3/2019	0.001 (J)		
3/5/2020	<0.005	0.0011 (J)	0.00044 (J)
8/19/2020	<0.005	0.0021 (J)	<0.005
9/16/2020	<0.005		<0.005
9/17/2020		0.0015 (J)	

# Time Series

Constituent: Barium (mg/L) Analysis Run 11/1/2020 11:46 AM View: Descriptive Pond E

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-2I (bg)	BRGWA-2S (bg)	BRGWA-5I (bg)	BRGWA-5S (bg)	BRGWA-6S (bg)	BRGWC-17S	BRGWC-33S	BRGWC-34S	BRGWC-35S
8/31/2016	0.0239	0.0099 (J)	0.0273	0.0495					
9/1/2016					0.0142				
9/7/2016						0.0377	0.0214		0.101
9/8/2016								0.0415	
11/15/2016				0.0512	0.0126				
11/16/2016	0.0147	0.0102	0.0365						
11/17/2016						0.0405	0.0211	0.04	0.0808
2/20/2017			0.0336	0.0586	0.0142				
2/21/2017	0.0109	0.0094 (J)							
2/22/2017						0.0392	0.0243	0.0415	0.0701
6/12/2017	0.0094 (J)		0.0322	0.0567	0.0134				
6/13/2017		0.0094 (J)							
6/14/2017							0.0218	0.0341	
6/15/2017						0.0364			0.0518
9/26/2017	0.0156	0.0096 (J)	0.0364	0.0586	0.0133				
9/27/2017							0.0219	0.0347	
9/28/2017						0.0408			0.047
2/13/2018	0.0134	0.0102	0.054	0.054	0.0145				
2/15/2018						0.0396	0.0248	0.0346	0.0485
6/26/2018	0.014	0.0093 (J)	0.032	0.063	0.014				
6/27/2018						0.041	0.023	0.028	0.046
12/18/2018	0.0076 (J)	0.01	0.038	0.045	0.013		0.023	0.029	
12/19/2018						0.038			0.04
8/27/2019	0.012	0.0095 (J)	0.028	0.056	0.013		0.02		
8/28/2019						0.044	0.02	0.026	0.039
10/15/2019	0.013	0.0091 (J)	0.032	0.049	0.013				
10/16/2019							0.019	0.022	0.037
12/3/2019						0.043			
3/3/2020	0.017	0.011	0.028	0.051	0.019	0.036			
3/5/2020							0.022	0.025	0.039
8/18/2020	0.01 (J)	0.01	0.022	0.04	0.014				
8/19/2020						0.047	0.02	0.024	0.04
9/15/2020	0.0083 (J)	0.0094 (J)	0.022	0.038	0.013				
9/16/2020						0.044	0.019	0.023	0.033

# Time Series

Constituent: Barium (mg/L) Analysis Run 11/1/2020 11:46 AM View: Descriptive Pond E

Plant Branch Client: Southern Company Data: Plant Branch AP

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	BRGWC-36S	BRGWC-38S	BRGWC-37S
9/7/2016	0.0674	0.044	
11/18/2016	0.0546		
11/21/2016		<0.05 (JB)	
2/23/2017	0.0489	0.0338	0.0229
4/17/2017			0.0227
5/15/2017			0.0227
6/15/2017	0.0415	0.0239	0.0218
9/28/2017	0.0397	0.0247	0.0222
2/15/2018	0.038	0.0215	0.0243
6/28/2018	0.035	0.018	0.023
12/19/2018	0.035		0.024
12/20/2018		0.017	
8/28/2019	0.034		0.027
8/29/2019		0.016	
10/16/2019		0.015	0.024
12/3/2019	0.031		
3/5/2020	0.033	0.016	0.025
8/19/2020	0.037	0.016	0.026
9/16/2020	0.03		0.024
9/17/2020		0.014	

# Time Series

Constituent: Beryllium (mg/L) Analysis Run 11/1/2020 11:46 AM View: Descriptive Pond E

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-2I (bg)	BRGWA-2S (bg)	BRGWA-5I (bg)	BRGWA-5S (bg)	BRGWA-6S (bg)	BRGWC-17S	BRGWC-33S	BRGWC-34S	BRGWC-35S
8/31/2016	<0.003	<0.003	<0.003	<0.003					
9/1/2016					<0.003				
9/7/2016						<0.003	0.0019 (J)		9E-05 (J)
9/8/2016								0.0001 (J)	
11/15/2016				<0.003	<0.003				
11/16/2016	<0.003	<0.003	<0.003						
11/17/2016						<0.003	<0.003 (J)	<0.003 (J)	<0.003 (J)
2/20/2017			<0.003	<0.003	<0.003				
2/21/2017	<0.003	<0.003							
2/22/2017						<0.003	0.0022 (J)	0.0002 (J)	0.0001 (J)
6/12/2017	<0.003		<0.003	<0.003	<0.003				
6/13/2017		<0.003							
6/14/2017							0.0019 (J)	<0.003	
6/15/2017						<0.003			0.0001 (J)
9/26/2017	<0.003	<0.003	<0.003	<0.003	<0.003				
9/27/2017							0.0017 (J)	0.0001 (J)	
9/28/2017						<0.003			0.0001 (J)
2/13/2018	<0.003	<0.003	<0.003	<0.003	<0.003				
2/15/2018						<0.003	<0.003	<0.003	<0.003
6/26/2018	<0.003	<0.003	<0.003	<0.003	<0.003				
6/27/2018						<0.003	0.002 (J)	0.00013 (J)	0.00015 (J)
12/18/2018	<0.003	<0.003	<0.003	<0.003	<0.003		0.0021 (J)	0.00012 (J)	
12/19/2018						<0.003			<0.003 (X)
8/27/2019	<0.003	<0.003	<0.003	<0.003	<0.003		0.0019 (J)		
8/28/2019						<0.003	0.0019 (J)	0.00014 (J)	0.00016 (J)
10/15/2019	<0.003	<0.003	<0.003	<0.003	<0.003				
10/16/2019							0.0018 (J)	0.00014 (J)	0.00015 (J)
10/17/2019						<0.003			
12/3/2019						<0.003			
3/3/2020	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003			
3/5/2020							0.0018 (J)	0.00015 (J)	0.00015 (J)
8/18/2020	<0.003	<0.003	<0.003	<0.003	<0.003				
8/19/2020						<0.003	0.0014 (J)	0.00015 (J)	0.00015 (J)
9/15/2020	<0.003	<0.003	<0.003	<0.003	<0.003				
9/16/2020						<0.003	0.0015 (J)	0.00014 (J)	0.00014 (J)

# Time Series

Constituent: Beryllium (mg/L) Analysis Run 11/1/2020 11:46 AM View: Descriptive Pond E

Plant Branch Client: Southern Company Data: Plant Branch AP

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	BRGWC-36S	BRGWC-38S	BRGWC-37S
9/7/2016	<0.003	0.0079	
9/23/2016		0.0096 (R)	
11/18/2016	<0.003 (J)		
11/21/2016		0.0092	
2/23/2017	0.0001 (J)	0.01	<0.003
4/17/2017			<0.003
5/15/2017			<0.003
6/15/2017	9E-05 (J)	0.0104	<0.003
9/28/2017	0.0001 (J)	0.0098	<0.003
2/15/2018	<0.003	0.011 (J)	<0.003
6/28/2018	8.1E-05 (J)	0.0085	<0.003
12/19/2018	<0.003 (X)		<0.003
12/20/2018		0.0092	
8/28/2019	0.00011 (J)		<0.003
8/29/2019		0.0088	
10/16/2019		0.0079	<0.003
10/17/2019	<0.003		
12/3/2019	9.7E-05 (J)		
3/5/2020	9.2E-05 (J)	0.0082	<0.003
8/19/2020	0.00011 (J)	0.0079	<0.003
9/16/2020	8E-05 (J)		<0.003
9/17/2020		0.0073	

# Time Series

Constituent: Boron (mg/L) Analysis Run 11/1/2020 11:46 AM View: Descriptive Pond E

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-2I (bg)	BRGWA-2S (bg)	BRGWA-5I (bg)	BRGWA-5S (bg)	BRGWA-6S (bg)	BRGWC-17S	BRGWC-33S	BRGWC-34S	BRGWC-35S
8/31/2016	0.0072 (J)	<0.04	<0.04	<0.04					
9/1/2016					<0.04				
9/7/2016						0.0449 (J)	1.15		1.06
9/8/2016								1.89	
11/15/2016				<0.04 (B)	<0.04 (B)				
11/16/2016	<0.04	<0.04	<0.04						
11/17/2016						<0.04	1.08	2.17	0.967
2/20/2017			0.0066 (J)	0.0093 (J)	0.0157 (J)				
2/21/2017	0.0088 (J)	<0.04							
2/22/2017						<0.04	1.44	2.09	1.35
6/12/2017	0.0133 (J)		<0.04	<0.04	<0.04				
6/13/2017		<0.04							
6/14/2017							1.16	2.45	
6/15/2017						<0.04			1.49
9/26/2017	0.0093 (J)	<0.04	<0.04	<0.04	<0.04				
9/27/2017							1.04	2.4	
9/28/2017						<0.04			1.27
2/13/2018	0.0141 (J)	<0.04	<0.04	<0.04	<0.04				
2/15/2018						<0.04	1.22	2.55	1.58
6/26/2018	0.012 (J)	<0.04	0.0042 (J)	0.0056 (J)	0.0041 (J)				
6/27/2018						0.0088 (J+X)	0.96 (J+X)	2.2 (J+X)	1.7 (J+X)
12/18/2018	0.0086 (J)	<0.04	<0.04	0.0062 (J)	<0.04		1.2	2.2	
12/19/2018						0.0045 (J)			1.8
3/19/2019	0.00565 (JD)	<0.04	<0.04	<0.04	<0.04	<0.04			
3/20/2019							1.3	2.3	1.7
10/15/2019	0.0067 (J)	<0.04	<0.04	0.006 (J)	0.01 (J)				
10/16/2019							1.1	2.3	2.2
10/17/2019						<0.04			
12/3/2019						0.0063 (J)			
3/3/2020	0.0082 (J)	<0.04	<0.04	<0.04	<0.04	0.0075 (J)			
3/5/2020							1.5	2.1	1.9
9/15/2020	<0.04	<0.04	<0.04	<0.04	<0.04				
9/16/2020						0.0066 (J)	1.1	2.2	1.9

# Time Series

Constituent: Boron (mg/L) Analysis Run 11/1/2020 11:46 AM View: Descriptive Pond E

Plant Branch Client: Southern Company Data: Plant Branch AP

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	BRGWC-36S	BRGWC-38S	BRGWC-37S
9/7/2016	0.725	1.73	
11/18/2016	0.831		
11/21/2016		2.02	
2/23/2017	0.949	1.77	<0.04
4/17/2017			<0.04
5/15/2017			<0.04
6/15/2017	0.961	1.78	<0.04
9/28/2017	0.948	1.45	<0.04
2/15/2018	1.11	2.09	<0.04
6/28/2018	0.89	1.5	<0.04 (X)
12/19/2018	1.1		<0.04
12/20/2018		1.7	
3/19/2019	1		
3/20/2019		1.5	0.004 (J)
10/16/2019		1.5	0.0055 (J)
10/17/2019	1.1		
12/3/2019	1		
3/5/2020	1.1	1.6	0.0076 (J)
9/16/2020	0.99		0.0062 (J)
9/17/2020		1.4	

# Time Series

Constituent: Cadmium (mg/L) Analysis Run 11/1/2020 11:46 AM View: Descriptive Pond E

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-2I (bg)	BRGWA-2S (bg)	BRGWA-5I (bg)	BRGWA-5S (bg)	BRGWA-6S (bg)	BRGWC-17S	BRGWC-33S	BRGWC-34S	BRGWC-35S
8/31/2016	<0.0025	<0.0025	<0.0025	<0.0025					
9/1/2016					<0.0025				
9/7/2016						<0.0025	0.0005 (J)		<0.0025
9/8/2016								<0.0025	
11/15/2016				<0.0025	<0.0025				
11/16/2016	<0.0025	<0.0025	<0.0025						
11/17/2016						<0.0025	<0.001 (J)	<0.001 (J)	<0.0025
2/20/2017			<0.0025	<0.0025	<0.0025				
2/21/2017	<0.0025	<0.0025							
2/22/2017						<0.0025	0.0006 (J)	0.0005 (J)	<0.0025
6/12/2017	<0.0025		<0.0025	<0.0025	<0.0025				
6/13/2017		<0.0025							
6/14/2017							0.0004 (J)	0.0004 (J)	
6/15/2017						<0.0025			<0.0025
9/26/2017	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025				
9/27/2017							0.0004 (J)	0.0007 (J)	
9/28/2017						<0.0025			<0.0025
2/13/2018	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025				
2/15/2018						<0.0025	<0.0025	<0.0025	<0.0025
6/26/2018	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025				
6/27/2018						<0.0025	0.00038 (J)	0.00017 (J)	<0.0025
12/18/2018	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025		0.00046 (J)	0.00023 (J)	
12/19/2018						<0.0025			<0.0025
8/27/2019	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025		0.00032 (J)		
8/28/2019						<0.0025	0.00032 (J)	0.00025 (J)	<0.0025
10/15/2019	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025				
10/16/2019							0.00039 (J)	0.0004 (J)	<0.0025
10/17/2019						<0.0025			
12/3/2019						<0.0025			
3/3/2020	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025			
3/5/2020							0.00038 (J)	0.00018 (J)	<0.0025
8/18/2020	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025				
8/19/2020						<0.0025	0.00029 (J)	0.00018 (J)	<0.0025
9/15/2020	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025				
9/16/2020						<0.0025	0.00032 (J)	0.00017 (J)	<0.0025



# Time Series

Constituent: Cadmium (mg/L) Analysis Run 11/1/2020 11:46 AM View: Descriptive Pond E

Plant Branch Client: Southern Company Data: Plant Branch AP

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	BRGWC-36S	BRGWC-38S	BRGWC-37S
9/7/2016	8E-05 (J)	0.0004 (J)	
11/18/2016	<0.0025		
11/21/2016		<0.001 (J)	
2/23/2017	0.0001 (J)	0.0007 (J)	<0.0025
4/17/2017			<0.0025
5/15/2017			<0.0025
6/15/2017	<0.0025	0.0006 (J)	<0.0025
9/28/2017	<0.0025	0.0007 (J)	<0.0025
2/15/2018	<0.0025	0.00069 (J)	<0.0025
6/28/2018	<0.0025	0.00056 (J)	<0.0025
12/19/2018	<0.0025 (X)		<0.0025
12/20/2018		<0.0025 (X)	
8/28/2019	<0.0025		<0.0025
8/29/2019		0.00053 (J)	
10/16/2019		0.00057 (J)	<0.0025
10/17/2019	<0.0025		
12/3/2019	<0.0025		
3/5/2020	<0.0025	0.00059 (J)	<0.0025
8/19/2020	<0.0025	0.00056 (J)	<0.0025
9/16/2020	<0.0025		<0.0025
9/17/2020		0.0005 (J)	

# Time Series

Constituent: Calcium (mg/L) Analysis Run 11/1/2020 11:46 AM View: Descriptive Pond E

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-2I (bg)	BRGWA-2S (bg)	BRGWA-5I (bg)	BRGWA-5S (bg)	BRGWA-6S (bg)	BRGWC-17S	BRGWC-33S	BRGWC-34S	BRGWC-35S
8/31/2016	12.6	4.09	13.5	19.6					
9/1/2016					3.3				
9/7/2016						26.3	53.4		54.1
9/8/2016								97.3	
11/15/2016				21.7	3.44				
11/16/2016	12.1	4.25	14.9						
11/17/2016						31.8	41.3	97.6	62.6
2/20/2017			13.9	21.1	3.52				
2/21/2017	11.4	4.02							
2/22/2017						33.5	53.1	106	64.6
6/12/2017	9.34		13.7	21.5	3.11				
6/13/2017		3.84							
6/14/2017							47.1	98	
6/15/2017						29			61.3
9/26/2017	14.3	3.31	14.4	24	3.15				
9/27/2017							49.5	95.8	
9/28/2017						34.1			60.8
2/13/2018	<25	3.94	<25	<25	3.65				
2/15/2018						33.8	50.9	100	56.6
6/26/2018	16 (J)	3.6	13.5 (J)	23.5 (J)	3.3				
6/27/2018						34.1	55.1	90.1	66.2
12/18/2018	14.5 (J)	3.8	16.4 (J)	19.8 (J)	3.5		52.7	85.1	
12/19/2018						33.1			64.4
3/19/2019	14.3 (JD)	3.9	12.3 (J)	21.4 (J)	3.6	31.6			
3/20/2019							51.4	82	61.8
10/15/2019	15.1	3.7	14.4	20	3.5				
10/16/2019							46.5	78.2	61.2
12/3/2019						37.7			
3/3/2020	20	4	14.9	23.2	5	29.7			
3/5/2020							48.1	89.6	69.9
9/15/2020	14.1	3.9	12.7	16.8	3.7				
9/16/2020						37.9	37.9	77.7	61.8

# Time Series

Constituent: Calcium (mg/L) Analysis Run 11/1/2020 11:46 AM View: Descriptive Pond E  
Plant Branch Client: Southern Company Data: Plant Branch AP

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	BRGWC-36S	BRGWC-38S	BRGWC-37S
9/7/2016	50.6	45.9	
11/18/2016	53.9		
11/21/2016		46.4	
2/23/2017	51	43.5	3.26
4/17/2017			3.23
5/15/2017			2.97 (B-01)
6/15/2017	53.8	45.3	3.15
9/28/2017	51.8	45.1	3.26
2/15/2018	50.1	45.3	3.39
6/28/2018	51	45.9	3.1
12/19/2018	57.1		3.6
12/20/2018		41.8	
3/19/2019	49.5		
3/20/2019		38.2	3.3
10/16/2019		38.4	3.4
12/3/2019	47.8		
3/5/2020	51.7	39.8	3.7
9/16/2020	45.9		3.2
9/17/2020		33.1	

# Time Series

Constituent: Chloride, Total (mg/L) Analysis Run 11/1/2020 11:46 AM View: Descriptive Pond E

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-2I (bg)	BRGWA-2S (bg)	BRGWA-5I (bg)	BRGWA-5S (bg)	BRGWA-6S (bg)	BRGWC-17S	BRGWC-33S	BRGWC-34S	BRGWC-35S
8/31/2016	2.3	2	4.4	3.6					
9/1/2016					2.5				
9/7/2016						3.7	5.3		5.8
9/8/2016								7.2	
11/15/2016				4	2.3				
11/16/2016	2	1.8	4.4						
11/17/2016						4.05 (D)	5.45 (D)	7.8 (D)	6.1 (D)
2/20/2017			4.8	3.9	2.4				
2/21/2017	2	1.8							
2/22/2017						3.6	0.12 (J)	7.1	5.6
6/12/2017	2.1		4.2	3.8	2.2				
6/13/2017		1.7							
6/14/2017							4.5	7.3	
6/15/2017						3.7			5.8
9/26/2017	2	1.8	4.4	4.1	2.3		5.4	7.6	
9/27/2017									
9/28/2017						4.1			6.2
2/13/2018	2.1	1.7	4.7	4.1	2.3				
2/15/2018						5.3	6.3	7.2	6.2
6/26/2018	2.4	2.2	4.5	4.1	2.6				
6/27/2018						4.2	4.5	7.1	5.9
12/18/2018	1.8	1.9	4.5	3.8	2.3		6.1	7.1	
12/19/2018						4.9 (J-X)			6.2 (J-X)
3/19/2019	2.45 (D)	2	4.5	4.2	2.6	5			
3/20/2019							6.2	6.9	6.6
10/15/2019	2.2	1.9	4.2	3.7	2.4				
10/16/2019							5.4	7.3	6.6
12/3/2019						4.8			
3/3/2020	1.9	1.9	3.9	3.6	2.9	3.8			
3/5/2020							4.8	6.4	5.8
9/15/2020	1.9	1.7	3.7	3.7	2.3				
9/16/2020						4.2	4.1	6.6	6

# Time Series

Constituent: Chloride, Total (mg/L) Analysis Run 11/1/2020 11:46 AM View: Descriptive Pond E

Plant Branch Client: Southern Company Data: Plant Branch AP

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	BRGWC-36S	BRGWC-38S	BRGWC-37S
9/7/2016	3.1	5.8	
11/18/2016	3.95 (D)		
11/21/2016		5.05 (D)	
2/23/2017	3.2	4.1	2.1
4/17/2017			1.8
5/15/2017			1.8
6/15/2017	4	4.8	1.9
9/28/2017	4.6	6.7	1.9
2/15/2018	5.4	8	2.3
6/28/2018	9 (J-X)	5.5 (J-X)	2.1 (J-X)
12/19/2018	6.2 (J-X)		1.9 (J-X)
12/20/2018		8 (J-X)	
3/19/2019	7.1		
3/20/2019		6.6	2.3
10/16/2019		6.4	2.3
12/3/2019	7.7		
3/5/2020	7.6	5.8	1.8
9/16/2020	7.9		1.8
9/17/2020		6.1	

# Time Series

Constituent: Chromium (mg/L) Analysis Run 11/1/2020 11:46 AM View: Descriptive Pond E

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-2I (bg)	BRGWA-2S (bg)	BRGWA-5I (bg)	BRGWA-5S (bg)	BRGWA-6S (bg)	BRGWC-17S	BRGWC-33S	BRGWC-34S	BRGWC-35S
8/31/2016	0.001 (J)	0.0034 (J)	0.0058 (J)	0.0028 (J)					
9/1/2016					0.0147				
9/7/2016						0.01 (J)	<0.01		0.0019 (J)
9/8/2016								<0.01	
11/15/2016				<0.01 (JB)	0.0154 (B)				
11/16/2016	<0.01	<0.01 (J)	<0.01 (J)						
11/17/2016						0.0185	<0.01	<0.01	<0.01 (J)
2/20/2017			0.0049 (J)	0.0047 (J)	0.014				
2/21/2017	<0.01	0.0036 (J)							
2/22/2017						0.0122	<0.01	<0.01	0.004 (J)
6/12/2017	0.0005 (J)		0.0052 (J)	0.0041 (J)	0.016				
6/13/2017		0.0038 (J)							
6/14/2017							<0.01	<0.01	
6/15/2017						0.0117			0.0033 (J)
9/26/2017	0.0005 (J)	0.0045 (J)	0.0039 (J)	0.0037 (J)	0.0144				
9/27/2017							<0.01	<0.01	
9/28/2017						0.0114			0.0052 (J)
2/13/2018	<0.01	<0.01	<0.01	<0.01	0.0144				
2/15/2018						0.011	<0.01	<0.01	<0.01
6/26/2018	<0.01	0.008 (J)	0.0053 (J)	0.0043 (J)	0.015				
6/27/2018						0.0098 (J)	<0.01	<0.01	0.0062 (J)
12/18/2018	<0.01	0.012	0.0032 (J)	0.0054 (J)	0.015		<0.01	<0.01	
12/19/2018						0.0095 (J)			0.0073 (J)
8/27/2019	0.0004 (J)	0.0083 (J)	0.0055 (J)	0.0043 (J)	0.015		<0.01		
8/28/2019						0.013	<0.01	<0.01	0.0071 (J)
10/15/2019	<0.01	0.0083 (J)	0.0047 (J)	0.0055 (J)	0.014				
10/16/2019							0.00049 (J)	<0.01	0.0064 (J)
12/3/2019						0.011			
3/3/2020	0.00047 (J)	0.0098 (J)	0.0069 (J)	0.0057 (J)	0.011	0.0081 (J)			
3/5/2020							<0.01	<0.01	0.0076 (J)
8/18/2020	0.00096 (J)	0.0085 (J)	0.0069 (J)	0.005 (J)	0.015				
8/19/2020						0.012	<0.01	<0.01	0.0073 (J)
9/15/2020	<0.01	0.0082 (J)	0.0069 (J)	0.0048 (J)	0.014				
9/16/2020						0.012	<0.01	<0.01	0.0058 (J)

# Time Series

Constituent: Chromium (mg/L) Analysis Run 11/1/2020 11:46 AM View: Descriptive Pond E

Plant Branch Client: Southern Company Data: Plant Branch AP

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	BRGWC-36S	BRGWC-38S	BRGWC-37S
9/7/2016	0.0073 (J)	0.0014 (J)	
11/18/2016	<0.01 (J)		
11/21/2016		<0.01 (J)	
2/23/2017	0.0086 (J)	0.0028 (J)	0.001 (J)
4/17/2017			0.0018 (J)
5/15/2017			0.0014 (J)
6/15/2017	0.0082 (J)	0.0038 (J)	0.0013 (J)
9/28/2017	0.0083 (J)	0.0037 (J)	0.0014 (J)
2/15/2018	0.0086 (J)	0.0044 (J)	<0.01
6/28/2018	0.0076 (J)	0.0041 (J)	<0.01
12/19/2018	0.0085 (J)		<0.01
12/20/2018		0.0041 (J)	
8/28/2019	0.0078 (J)		0.0017 (J)
8/29/2019		0.0044 (J)	
10/16/2019		0.0038 (J)	0.0014 (J)
12/3/2019	0.007 (J)		
3/5/2020	0.0087 (J)	0.0038 (J)	0.0016 (J)
8/19/2020	0.0094 (J)	0.0043 (J)	0.0017 (J)
9/16/2020	0.0064 (J)		0.0018 (J)
9/17/2020		0.0042 (J)	

# Time Series

Constituent: Cobalt (mg/L) Analysis Run 11/1/2020 11:46 AM View: Descriptive Pond E

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-2I (bg)	BRGWA-2S (bg)	BRGWA-5I (bg)	BRGWA-5S (bg)	BRGWA-6S (bg)	BRGWC-17S	BRGWC-33S	BRGWC-34S	BRGWC-35S
8/31/2016	0.0016 (J)	0.0034 (J)	0.0013 (J)	<0.005					
9/1/2016					<0.005				
9/7/2016						<0.005	0.0612		0.0023 (J)
9/8/2016								0.0029 (J)	
11/15/2016				<0.005	<0.005				
11/16/2016	<0.005	<0.005	<0.01 (o)						
11/17/2016						<0.005	0.0551	<0.01 (J)	<0.01 (J)
2/20/2017			0.0012 (J)	0.0009 (J)	<0.005				
2/21/2017	<0.005	0.0028 (J)							
2/22/2017						<0.005	0.0567	0.0041 (J)	0.0008 (J)
6/12/2017	<0.005		0.0011 (J)	0.0006 (J)	0.0003 (J)				
6/13/2017		0.0025 (J)							
6/14/2017							0.0557	0.0036 (J)	
6/15/2017						<0.005			0.0004 (J)
9/26/2017	<0.005	0.002 (J)	0.0016 (J)	0.0005 (J)	0.0003 (J)				
9/27/2017							0.049	0.0028 (J)	
9/28/2017						<0.005			0.0003 (J)
2/13/2018	<0.005	<0.005	<0.01 (o)	<0.005	<0.005				
2/15/2018						<0.005	0.0536	<0.005	<0.005
6/26/2018	<0.005	0.0019 (J)	0.0009 (J)	0.00052 (J)	<0.005				
6/27/2018						<0.005	0.054	0.0041 (J)	<0.005
12/18/2018	<0.005	0.0032 (J)	0.00062 (J)	<0.005	<0.005		0.049	0.0032 (J)	
12/19/2018						<0.005			<0.005
8/27/2019	<0.005	0.0012 (J)	0.00068 (J)	0.00042 (J)	<0.005		0.045		
8/28/2019						<0.005	0.045	0.0037 (J)	<0.005
10/15/2019	<0.005	0.00097 (J)	0.00083 (J)	<0.005	<0.005				
10/16/2019							0.042	0.0043 (J)	<0.005
10/17/2019						<0.005			
12/3/2019						<0.005			
3/3/2020	<0.005	0.0015 (J)	0.00043 (J)	<0.005	0.0011 (J)	<0.005			
3/5/2020							0.037	0.0031 (J)	<0.005
8/18/2020	<0.005	0.0014 (J)	0.00048 (J)	<0.005	0.00061 (J)				
8/19/2020						<0.005	0.036	0.0041 (J)	<0.005
9/15/2020	<0.005	0.001 (J)	0.0005 (J)	<0.005	<0.005				
9/16/2020						<0.005	0.034	0.0042 (J)	<0.005



# Time Series

Constituent: Cobalt (mg/L) Analysis Run 11/1/2020 11:46 AM View: Descriptive Pond E  
Plant Branch Client: Southern Company Data: Plant Branch AP

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	BRGWC-36S	BRGWC-38S	BRGWC-37S
9/7/2016	<0.005	0.236	
11/18/2016	<0.005		
11/21/2016		0.298	
2/23/2017	<0.005	0.277	<0.005
4/17/2017			<0.005
5/15/2017			<0.005
6/15/2017	<0.005	0.262	<0.005
9/28/2017	<0.005	0.279	<0.005
2/15/2018	<0.005	0.279	<0.005
6/28/2018	<0.005	0.23	<0.005
12/19/2018	<0.005		<0.005
12/20/2018		0.25	
8/28/2019	<0.005		<0.005
8/29/2019		0.21	
10/16/2019		0.21	<0.005
10/17/2019	<0.005		
12/3/2019	<0.005		
3/5/2020	<0.005	0.22	<0.005
8/19/2020	<0.005	0.22	<0.005
9/16/2020	<0.005		<0.005
9/17/2020		0.2	

# Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 11/1/2020 11:46 AM View: Descriptive Pond E

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-2I (bg)	BRGWA-2S (bg)	BRGWA-5I (bg)	BRGWA-5S (bg)	BRGWA-6S (bg)	BRGWC-17S	BRGWC-33S	BRGWC-34S	BRGWC-35S
8/31/2016	0.351 (U)	1 (U)	0.62 (U)	0.603 (U)					
9/1/2016					1.33				
9/7/2016						1.18	0.541 (U)		0.189 (U)
9/8/2016								0.998 (U)	
11/15/2016				0.645 (U)	0.412 (U)				
11/16/2016	0.824 (U)	0.43 (U)	0.493 (U)						
11/17/2016						0.145 (U)	1.02 (U)	0.613	0.729 (U)
2/20/2017			0.534 (U)	1.36	0.633 (U)				
2/21/2017	1.01 (U)	0.96 (U)							
2/22/2017						0.0213 (U)	0.482 (U)	1.01 (U)	0.293 (U)
6/12/2017	0.532 (U)		0.254 (U)	0.566 (U)	0.112 (U)				
6/13/2017		0.645 (U)							
6/14/2017							0.723 (U)	0.801 (U)	
6/15/2017						0.41 (U)			1.09
9/26/2017	0.845 (U)	0.299 (U)	0.62 (U)	0.762 (U)	0.167 (U)				
9/27/2017							1.5	1.44	
9/28/2017						0.496 (U)			1.02 (U)
2/13/2018	0.176 (U)	1.01 (U)	0.0914 (U)	0.349 (U)	0.347 (U)				
2/15/2018						0.672 (U)	1.14 (U)	0.668 (U)	0.742 (U)
6/26/2018	1.02 (U)	1.26 (J+X)	1.11 (U)	0.614 (U)	0.903 (U)				
6/27/2018						0.692 (U)	1.3 (U)	1.06 (U)	0.739 (U)
12/18/2018	0.487 (U)	0.44 (U)	0.42 (U)	0.445 (U)	0.353 (U)		1.64 (UX)	1.22	
12/19/2018						0.325 (U)			0.465 (U)
8/27/2019	1.11	1.47	1.19	1.44	0.65 (U)		1.38		
8/28/2019						0.24 (U)		0.811 (U)	0.995 (U)
10/15/2019	1.02 (U)	0.807 (U)	0.714 (U)	0.467 (U)	0.402 (U)				
10/16/2019							1.16 (U)	0.561 (U)	1.69
12/18/2019						1.16 (U)			
3/3/2020	1.18 (U)	0.818 (U)	0.996 (U)	1.5	0.397 (U)	0.756 (U)			
3/5/2020							0.683 (U)	0.792 (U)	0.858 (U)
8/18/2020	0.0861 (U)	1.22 (U)	0.53 (U)	0.581 (U)	0.453 (U)				
8/19/2020						0.985 (U)	1.14 (U)	1.21 (U)	0.162 (U)
9/15/2020	0.0583 (U)	0.579 (U)	0.215 (U)	0.55 (U)	0.474 (U)				
9/16/2020						0.478 (U)	0.195 (U)	0.72 (U)	1.25 (U)

# Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 11/1/2020 11:46 AM View: Descriptive Pond E

Plant Branch Client: Southern Company Data: Plant Branch AP

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	BRGWC-36S	BRGWC-38S	BRGWC-37S
9/7/2016	0.638 (U)	0.816 (U)	
11/18/2016	1.22 (U)		
11/21/2016		2.94	
2/23/2017	0.554 (U)	1.92	0.567 (U)
4/17/2017			0.335 (U)
5/15/2017			0.261 (U)
6/15/2017	0.77 (U)	3.6	0.188 (U)
9/28/2017	1.07 (U)	3.3	0.627 (U)
2/15/2018	0.751 (U)	2.31 (J+X)	0.869 (U)
6/28/2018	0.392 (U)	1.75 (UX)	0.336 (U)
12/19/2018	0.693 (U)		0.454 (U)
12/20/2018		2.8 (J+X)	
8/28/2019	0.866 (U)		0.809 (U)
8/29/2019		3.68	
10/16/2019		2.66	0.815 (U)
12/18/2019	1.91		
3/5/2020	1.3	2.21	0.791 (U)
8/19/2020	1.4	3.17	0.582 (U)
9/16/2020	1.17 (U)		0.844 (U)
9/17/2020		2.92	

# Time Series

Constituent: Fluoride (mg/L) Analysis Run 11/1/2020 11:46 AM View: Descriptive Pond E

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-2I (bg)	BRGWA-2S (bg)	BRGWA-5I (bg)	BRGWA-5S (bg)	BRGWA-6S (bg)	BRGWC-17S	BRGWC-33S	BRGWC-34S	BRGWC-35S
8/31/2016	0.11 (J)	0.05 (J)	0.07 (J)	0.19 (J)					
9/1/2016					0.06 (J)				
9/7/2016						0.22 (J)	0.19 (J)		0.34
9/8/2016								0.17 (J)	
11/15/2016				<0.3 (J)	<0.3 (J)				
11/16/2016	<0.3 (J)	<0.3 (J)	<0.3 (J)						
11/17/2016						0.315 (D)	<0.1 (D)	<0.1 (D)	<0.1 (D)
2/20/2017			0.06 (J)	0.08 (J)	0.04 (J)				
2/21/2017	0.14 (J)	0.05 (J)							
2/22/2017						0.11 (J)	0.21 (J)	0.17 (J)	0.09 (J)
6/12/2017	0.16 (J)		0.008 (J)	0.07 (J)	0.06 (J)				
6/13/2017		0.04 (J)							
6/14/2017							0.18 (J)	0.1 (J)	
6/15/2017						0.05 (J)			0.03 (J)
9/26/2017	0.14 (J)	<0.1	<0.1	0.04 (J)	<0.1				
9/27/2017							0.42	0.4	
9/28/2017						0.05 (J)			<0.1
2/13/2018	<0.1	<0.1	<0.1	<0.1	<0.1				
2/15/2018						<0.1	0.42	<0.1	<0.1
6/26/2018	0.085 (J)	0.048 (J)	0.045 (J)	0.072 (J)	0.041 (J)				
6/27/2018						0.093 (J)	0.32	0.21 (J)	0.22 (J)
12/18/2018	0.085 (J)	<0.1	<0.1	<0.1	<0.1		0.28 (J)	0.12 (J)	
12/19/2018						0.16 (J)			0.11 (J)
3/19/2019	0.0655 (JD)	0.037 (J)	<0.1	0.06 (J)	0.03 (J)	0.1 (J)			
3/20/2019							0.14 (J)	0.074 (J)	0.088 (J)
8/27/2019	<0.1	<0.1	<0.1	<0.1	<0.1		0.11 (J)		
8/28/2019						0.085 (J)	0.11 (J)	0.057 (J)	0.056 (J)
10/15/2019	<0.1	<0.1	<0.1	0.045 (J)	<0.1				
10/16/2019							0.17 (J)	0.13 (J)	0.08 (J)
12/3/2019						0.2 (J)			
3/3/2020	0.066 (J)	0.05 (J)	<0.1	0.057 (J)	0.09 (J)	0.093 (J)			
3/5/2020							0.088 (J)	0.072 (J)	0.067 (J)
8/18/2020	<0.1	<0.1	<0.1	<0.1	<0.1				
8/19/2020						0.1	0.11	0.074 (J)	0.06 (J)
9/15/2020	<0.1	<0.1	<0.1	0.051 (J)	<0.1				
9/16/2020						0.1	0.085 (J)	0.077 (J)	0.062 (J)

# Time Series

Constituent: Fluoride (mg/L) Analysis Run 11/1/2020 11:46 AM View: Descriptive Pond E

Plant Branch Client: Southern Company Data: Plant Branch AP

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	BRGWC-36S	BRGWC-38S	BRGWC-37S
9/7/2016	0.18 (J)	0.66	
11/18/2016	<0.1 (D)		
11/21/2016		0.9 (D)	
2/23/2017	0.07 (J)	0.75	0.1 (J)
4/17/2017			0.08 (J)
5/15/2017			0.02 (J)
6/15/2017	0.01 (J)	0.77	0.03 (J)
9/28/2017	<0.1	0.8	<0.1
2/15/2018	<0.1	0.82	<0.1
6/28/2018	0.51 (J+X)	1.5 (J+X)	<0.1
12/19/2018	<0.1		0.094 (J)
12/20/2018		0.68	
3/19/2019	<0.1		
3/20/2019		0.95	0.062 (J)
8/28/2019	<0.1		<0.1
8/29/2019		0.9	
10/16/2019		0.61	0.059 (J)
12/3/2019	0.15 (J)		
3/5/2020	<0.1	0.92	0.05 (J)
8/19/2020	0.051 (J)	0.95	0.055 (J)
9/16/2020	<0.1		<0.1
9/17/2020		0.68	

# Time Series

Constituent: Lead (mg/L) Analysis Run 11/1/2020 11:46 AM View: Descriptive Pond E

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-2I (bg)	BRGWA-2S (bg)	BRGWA-5I (bg)	BRGWA-5S (bg)	BRGWA-6S (bg)	BRGWC-17S	BRGWC-33S	BRGWC-34S	BRGWC-35S
8/31/2016	<0.005	<0.005	<0.005	<0.005					
9/1/2016					0.0001 (J)				
9/7/2016						<0.005	0.0002 (J)		0.0001 (J)
9/8/2016								<0.005	
11/15/2016				<0.005	<0.005				
11/16/2016	<0.005	<0.005	<0.005						
11/17/2016						<0.005 (J)	<0.005 (J)	<0.005 (J)	<0.005 (J)
2/20/2017			<0.005	0.0002 (J)	<0.005				
2/21/2017	<0.005	<0.005							
2/22/2017						<0.005	0.0001 (J)	0.0003 (J)	0.0001 (J)
6/12/2017	8E-05 (J)		<0.005	0.0001 (J)	8E-05 (J)				
6/13/2017		<0.005							
6/14/2017							9E-05 (J)	<0.005	
6/15/2017						<0.005			<0.005
9/26/2017	7E-05 (J)	7E-05 (J)	<0.005	0.0001 (J)	<0.005				
9/27/2017							7E-05 (J)	9E-05 (J)	
9/28/2017						<0.005			<0.005
2/13/2018	<0.005	<0.005	<0.005	<0.005	<0.005				
2/15/2018						<0.005	<0.005	<0.005	<0.005
6/26/2018	<0.005	<0.005	<0.005	<0.005	<0.005				
6/27/2018						<0.005	<0.005	<0.005	<0.005
12/18/2018	<0.005	<0.005	<0.005	<0.005	<0.005		<0.005	<0.005	
12/19/2018						<0.005			<0.005
8/27/2019	<0.005	5.8E-05 (J)	<0.005	0.00036 (J)	<0.005		0.00013 (J)		
8/28/2019						<0.005	0.00013 (J)	<0.005	<0.005
10/15/2019	<0.005	<0.005	<0.005	7.9E-05 (J)	<0.005				
10/16/2019							8.8E-05 (J)	<0.005	<0.005
12/3/2019						<0.005			
3/3/2020	<0.005	<0.005	<0.005	7.9E-05 (J)	7.3E-05 (J)	<0.005			
3/5/2020							8.7E-05 (J)	<0.005	<0.005
8/18/2020	<0.005	<0.005	<0.005	0.0001 (J)	<0.005				
8/19/2020						<0.005	6E-05 (J)	<0.005	<0.005
9/15/2020	<0.005	<0.005	0.0013 (J)	4.3E-05 (J)	<0.005				
9/16/2020						5.4E-05 (J)	6.3E-05 (J)	<0.005	0.00012 (J)

# Time Series

Constituent: Lead (mg/L) Analysis Run 11/1/2020 11:46 AM View: Descriptive Pond E

Plant Branch Client: Southern Company Data: Plant Branch AP

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	BRGWC-36S	BRGWC-38S	BRGWC-37S
9/7/2016	<0.005	0.0004 (J)	
11/18/2016	<0.005		
11/21/2016		<0.005 (J)	
2/23/2017	<0.005	0.0005 (J)	<0.005
4/17/2017			0.0001 (J)
5/15/2017			<0.005
6/15/2017	<0.005	0.0004 (J)	<0.005
9/28/2017	<0.005	0.0004 (J)	0.0001 (J)
2/15/2018	<0.005	0.00047 (J)	<0.005
6/28/2018	<0.005	0.00036 (J)	<0.005
12/19/2018	<0.005		<0.005
12/20/2018		0.00039 (J)	
8/28/2019	<0.005		<0.005
8/29/2019		0.00035 (J)	
10/16/2019		0.00035 (J)	<0.005
12/3/2019	<0.005		
3/5/2020	<0.005	0.00041 (J)	<0.005
8/19/2020	4.7E-05 (J)	0.00031 (J)	<0.005
9/16/2020	<0.005		<0.005
9/17/2020		0.00032 (J)	

# Time Series

Constituent: Lithium (mg/L) Analysis Run 11/1/2020 11:46 AM View: Descriptive Pond E

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-2I (bg)	BRGWA-2S (bg)	BRGWA-5I (bg)	BRGWA-5S (bg)	BRGWA-6S (bg)	BRGWC-17S	BRGWC-33S	BRGWC-34S	BRGWC-35S
8/31/2016	0.0268 (J)	<0.03	<0.03	<0.03					
9/1/2016					0.003 (J)				
9/7/2016						<0.03	0.0092 (J)		0.0021 (J)
9/8/2016								<0.03	
11/15/2016				<0.03	<0.03				
11/16/2016	<0.03	<0.03	<0.03						
11/17/2016						<0.03	<0.03	<0.03	<0.03
2/20/2017			<0.03	<0.03	0.0025 (J)				
2/21/2017	0.0128 (J)	<0.03							
2/22/2017						<0.03	0.0106 (J)	<0.03	0.0023 (J)
6/12/2017	0.0245 (J)		0.0019 (J)	<0.03	0.0027 (J)				
6/13/2017		<0.03							
6/14/2017							0.0097 (J)	<0.03	
6/15/2017						<0.03			0.0023 (J)
9/26/2017	0.0549	<0.03	0.0022 (J)	<0.03	0.0023 (J)				
9/27/2017							0.0099 (J)	<0.03	
9/28/2017						<0.03			0.0021 (J)
2/13/2018	0.0595	<0.03	0.0041 (J)	<0.03	0.0027 (J)				
2/15/2018						<0.03	0.0106 (J)	<0.03	0.0021 (J)
6/26/2018	0.089	<0.03	0.0025 (J)	<0.03	0.0029 (J)				
6/27/2018						<0.03	0.01 (J)	<0.03	0.0021 (J)
12/18/2018	0.024 (J)	<0.03	0.0032 (J)	<0.03	0.0026 (J)		0.011 (J)	<0.03	
12/19/2018						<0.03			0.0021 (J)
8/27/2019	0.035	<0.03	0.0019 (J)	<0.03	0.0028 (J)		0.01 (J)		
8/28/2019						0.00097 (J)	0.01 (J)	0.0009 (J)	0.0021 (J)
10/15/2019	0.028 (J)	<0.03	0.002 (J)	<0.03	0.0024 (J)				
10/16/2019							0.0098 (J)	0.00078 (J)	0.0022 (J)
12/3/2019						0.001 (J)			
3/3/2020	0.055	<0.03	0.0013 (J)	<0.03	0.0026 (J)	<0.03			
3/5/2020							0.011 (J)	0.00089 (J)	0.0021 (J)
8/18/2020	0.054	<0.03	0.00095 (J)	<0.03	0.0026 (J)				
8/19/2020						0.001 (J)	0.009 (J)	0.00082 (J)	0.0021 (J)
9/15/2020	0.033	<0.03	0.001 (J)	<0.03	0.0027 (J)				
9/16/2020						0.00096 (J)	0.0089 (J)	<0.03	0.002 (J)



# Time Series

Constituent: Lithium (mg/L) Analysis Run 11/1/2020 11:46 AM View: Descriptive Pond E

Plant Branch Client: Southern Company Data: Plant Branch AP

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	BRGWC-36S	BRGWC-38S	BRGWC-37S
9/7/2016	0.0024 (J)	0.0193 (J)	
11/18/2016	<0.03		
11/21/2016		<0.03	
2/23/2017	0.0026 (J)	0.0229 (J)	<0.03
4/17/2017			<0.03
5/15/2017			<0.03
6/15/2017	0.0026 (J)	0.0227 (J)	<0.03
9/28/2017	0.0025 (J)	0.023 (J)	<0.03
2/15/2018	<0.03	0.0254 (J)	<0.03
6/28/2018	0.0022 (J)	0.021 (J)	<0.03
12/19/2018	0.0026 (J)		<0.03
12/20/2018		0.022 (J)	
8/28/2019	0.0025 (J)		<0.03
8/29/2019		0.021 (J)	
10/16/2019		0.02 (J)	<0.03
12/3/2019	0.0024 (J)		
3/5/2020	0.0025 (J)	0.021 (J)	<0.03
8/19/2020	0.0024 (J)	0.021 (J)	<0.03
9/16/2020	0.0022 (J)		<0.03
9/17/2020		0.02 (J)	

# Time Series

Constituent: Mercury (mg/L) Analysis Run 11/1/2020 11:46 AM View: Descriptive Pond E

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-2I (bg)	BRGWA-2S (bg)	BRGWA-5I (bg)	BRGWA-5S (bg)	BRGWA-6S (bg)	BRGWC-17S	BRGWC-33S	BRGWC-34S	BRGWC-35S
8/31/2016	<0.0005	<0.0005	<0.0005	<0.0005					
9/1/2016					<0.0005				
9/7/2016						<0.0005	<0.0005		<0.0005
9/8/2016								<0.0005	
11/15/2016				<0.0005	<0.0005				
11/16/2016	<0.0005	<0.0005	<0.0005						
11/17/2016						<0.0005	<0.0005	<0.0005	<0.0005
2/20/2017			<0.0005	8E-05 (J)	<0.0005				
2/21/2017	<0.0005	<0.0005							
2/22/2017						<0.0005	<0.0005	<0.0005	<0.0005
6/12/2017	4E-05 (J)		<0.0005	<0.0005	<0.0005				
6/13/2017		<0.0005							
6/14/2017							7E-05 (J)	7E-05 (J)	
6/15/2017						6E-05 (J)			7E-05 (J)
9/26/2017	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005				
9/27/2017							4E-05 (J)	4E-05 (J)	
9/28/2017						<0.0005			<0.0005
2/13/2018	0.00021	0.00019 (J)	<0.0005	0.00013 (J)	<0.0005				
2/15/2018						<0.0005	<0.0005	<0.0005	<0.0005
6/26/2018	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005				
6/27/2018						<0.0005	<0.0005	<0.0005	<0.0005
12/18/2018	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005		<0.0005	<0.0005	
12/19/2018						<0.0005			<0.0005
8/27/2019	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005		<0.0005		
8/28/2019						<0.0005	<0.0005	<0.0005	<0.0005
8/18/2020	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005				
8/19/2020						8.4E-05 (J)	<0.0005	0.00012 (J)	0.00013 (J)
9/15/2020	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005				
9/16/2020						<0.0005	<0.0005	<0.0005	<0.0005

# Time Series

Constituent: Mercury (mg/L) Analysis Run 11/1/2020 11:46 AM View: Descriptive Pond E

Plant Branch Client: Southern Company Data: Plant Branch AP

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	BRGWC-36S	BRGWC-38S	BRGWC-37S
9/7/2016	<0.0005	7E-05 (J)	
11/18/2016	<0.0005		
11/21/2016		<0.0005 (J)	
2/23/2017	<0.0005	7E-05 (J)	<0.0005
4/17/2017			<0.0005
5/15/2017			<0.0005
6/15/2017	7E-05 (J)	0.00016 (J)	6E-05 (J)
9/28/2017	<0.0005	0.00011 (J)	<0.0005
2/15/2018	<0.0005	0.00015 (J)	<0.0005
6/28/2018	<0.0005	<0.0005 (X)	<0.0005
12/19/2018	<0.0005		<0.0005
12/20/2018		0.00017 (J)	
8/28/2019	<0.0005		<0.0005
8/29/2019		0.00018 (J)	
8/19/2020	0.00013 (J)	0.00018 (J)	0.00014 (J)
9/16/2020	<0.0005		<0.0005
9/17/2020		0.00011 (J)	

# Time Series

Constituent: Molybdenum (mg/L) Analysis Run 11/1/2020 11:46 AM View: Descriptive Pond E

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-2I (bg)	BRGWA-2S (bg)	BRGWA-5I (bg)	BRGWA-5S (bg)	BRGWA-6S (bg)	BRGWC-17S	BRGWC-33S	BRGWC-34S	BRGWC-35S
8/31/2016	0.0021 (J)	<0.01	0.004 (J)	<0.01					
9/1/2016					<0.01				
9/7/2016						<0.01	<0.01		<0.01
9/8/2016								<0.01	
11/15/2016				<0.01	<0.01				
11/16/2016	<0.01	<0.01	<0.01 (J)						
11/17/2016						<0.01	<0.01	<0.01	<0.01
2/20/2017			0.0055 (J)	<0.01	<0.01				
2/21/2017	0.0021 (J)	<0.01							
2/22/2017						<0.01	<0.01	<0.01	<0.01
6/12/2017	0.0021 (J)		0.005 (J)	<0.01	<0.01				
6/13/2017		<0.01							
6/14/2017							<0.01	<0.01	
6/15/2017						<0.01			<0.01
9/26/2017	0.0011 (J)	<0.01	0.0053 (J)	<0.01	<0.01				
9/27/2017							<0.01	<0.01	
9/28/2017						<0.01			<0.01
2/13/2018	0.0019 (J)	<0.01	0.008 (J)	<0.01	<0.01				
2/15/2018						<0.01	<0.01	<0.01	<0.01
6/26/2018	<0.01	<0.01	0.0041 (J)	<0.01	<0.01				
6/27/2018						<0.01	<0.01	<0.01	<0.01
12/18/2018	<0.01	<0.01	0.0048 (J)	<0.01	<0.01		<0.01	<0.01	
12/19/2018						<0.01			<0.01
8/27/2019	<0.01	<0.01	0.0028 (J)	<0.01	<0.01		<0.01		
8/28/2019						<0.01	<0.01	<0.01	<0.01
10/15/2019	<0.01	<0.01	0.0035 (J)	<0.01	<0.01				
10/16/2019							<0.01	<0.01	<0.01
12/3/2019						<0.01			
3/3/2020	<0.01	<0.01	0.0023 (J)	<0.01	<0.01	<0.01			
3/5/2020							<0.01	<0.01	<0.01
8/18/2020	0.0011 (J)	<0.01	0.0015 (J)	<0.01	<0.01				
8/19/2020						<0.01	<0.01	<0.01	<0.01
9/15/2020	0.0007 (J)	<0.01	0.0015 (J)	<0.01	<0.01				
9/16/2020						<0.01	<0.01	<0.01	<0.01

# Time Series

Constituent: Molybdenum (mg/L) Analysis Run 11/1/2020 11:46 AM View: Descriptive Pond E

Plant Branch Client: Southern Company Data: Plant Branch AP

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	BRGWC-36S	BRGWC-38S	BRGWC-37S
9/7/2016	<0.01	<0.01	
11/18/2016	<0.01		
11/21/2016		<0.01	
2/23/2017	<0.01	<0.01	<0.01
4/17/2017			<0.01
5/15/2017			<0.01
6/15/2017	<0.01	<0.01	<0.01
9/28/2017	<0.01	<0.01	<0.01
2/15/2018	<0.01	<0.01	<0.01
6/28/2018	<0.01	<0.01	<0.01
12/19/2018	<0.01		<0.01
12/20/2018		<0.01	
8/28/2019	<0.01		<0.01
8/29/2019		<0.01	
10/16/2019		<0.01	<0.01
12/3/2019	<0.01		
3/5/2020	<0.01	<0.01	<0.01
8/19/2020	<0.01	<0.01	<0.01
9/16/2020	<0.01		<0.01
9/17/2020		<0.01	

# Time Series

Constituent: pH, Field (S.U) Analysis Run 11/1/2020 11:46 AM View: Descriptive Pond E

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-2I (bg)	BRGWA-2S (bg)	BRGWA-5I (bg)	BRGWA-5S (bg)	BRGWA-6S (bg)	BRGWC-17S	BRGWC-33S	BRGWC-34S	BRGWC-35S
8/31/2016	7.16	6.2	6.53	6.59					
9/1/2016					6.49				
9/7/2016						6.36	4.92		6.1
9/8/2016								5.84	
11/15/2016				6.67	6.59				
11/16/2016	6.96	6.12	6.4						
11/17/2016						6.28	4.82	5.81	6.04
2/20/2017			6.44	6.65	6.61				
2/21/2017	7.15	6.24							
2/22/2017						6.4	4.86	5.85	6.08
6/12/2017	7.31		6.4	6.64					
6/13/2017		6.19							
6/14/2017							4.86	5.87	
9/26/2017	7.02	6.15	6.31	6.58	6.47				
9/27/2017							4.78	5.74	
9/28/2017						6.35			6.03
2/13/2018	7.44	6.18	6.62	6.72	6.54				
2/15/2018						6.35	4.84	5.93	6.02
6/26/2018	6.93	6.05	6.29	6.43	6.23				
6/27/2018						6.35	4.73	5.68	6.01
12/18/2018	6.76	5.92	6.57	6.7	6.71		4.84	5.97	
12/19/2018						6.56			6.22
3/19/2019	6.87	6.18	6.45	6.63	6.18	6.43			
3/20/2019							4.77	5.84	6.06
8/27/2019	6.79	6.09	6.37	6.49	6.35		4.78		
8/28/2019						6.25	5.52	5.8	5.95
10/15/2019	6.57	6.06	6.77	7.01	6.36				
10/16/2019							4.78	5.85	6.03
10/17/2019						6.3			
3/3/2020	6.71	6.1	6.29	6.49	6.59	6.34			
3/5/2020							4.82	5.89	6.04
8/18/2020	6.59	6.06	6.29	6.41	6.33				
8/19/2020						6.24	4.78	5.78	5.97
9/15/2020	6.64	6.01	6.27	6.25	6.43				
9/16/2020						6.26	4.78	5.81	5.96

# Time Series

Constituent: pH, Field (S.U) Analysis Run 11/1/2020 11:46 AM View: Descriptive Pond E  
Plant Branch Client: Southern Company Data: Plant Branch AP

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	BRGWC-36S	BRGWC-38S	BRGWC-37S
9/7/2016	5.59	5.43	
9/23/2016		5.46	
11/18/2016	5.51		
11/21/2016		4.84	
2/23/2017	5.65	4.73	5.57
9/28/2017	5.62	4.37	5.76
2/15/2018	5.66	4.3	5.95
6/28/2018	5.57	4.16	5.78
12/19/2018	5.76		6.07
12/20/2018		4.21	
3/19/2019	5.72		
3/20/2019		4.34	5.93
8/28/2019	5.52		5.8
8/29/2019		4.01	
10/16/2019		4.21	5.81
10/17/2019	5.61		
3/5/2020	5.39	4.01	5.53
8/19/2020	5.53	4.12	5.66
9/16/2020	5.58		5.84
9/17/2020		4.17	

# Time Series

Constituent: Selenium (mg/L) Analysis Run 11/1/2020 11:46 AM View: Descriptive Pond E

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-2I (bg)	BRGWA-2S (bg)	BRGWA-5I (bg)	BRGWA-5S (bg)	BRGWA-6S (bg)	BRGWC-17S	BRGWC-33S	BRGWC-34S	BRGWC-35S
8/31/2016	<0.01	<0.01	<0.01	<0.01					
9/1/2016					<0.01				
9/7/2016						0.0024 (J)	0.0032 (J)		<0.01
9/8/2016								<0.01	
11/15/2016				<0.01	<0.01				
11/16/2016	<0.01	<0.01	<0.01						
11/17/2016						<0.01 (J)	<0.01 (J)	<0.01	<0.01
2/20/2017			<0.01	<0.01	<0.01				
2/21/2017	<0.01	<0.01							
2/22/2017						0.0018 (J)	0.0018 (J)	<0.01	<0.01
6/12/2017	<0.01		<0.01	<0.01	<0.01				
6/13/2017		<0.01							
6/14/2017							0.004 (J)	<0.01	
6/15/2017						0.0024 (J)			<0.01
9/26/2017	<0.01	<0.01	<0.01	<0.01	<0.01				
9/27/2017							0.0036 (J)	<0.01	
9/28/2017						<0.01			<0.01
2/13/2018	<0.01	<0.01	<0.01	<0.01	<0.01				
2/15/2018						<0.01	<0.01	<0.01	<0.01
6/26/2018	<0.01	<0.01	<0.01	<0.01	<0.01				
6/27/2018						0.002 (J)	0.0017 (J)	<0.01	<0.01
12/18/2018	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01	
12/19/2018						0.0014 (J)			<0.01
8/27/2019	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01		
8/28/2019						0.003 (J)	<0.01	<0.01	<0.01
10/15/2019	<0.01	<0.01	<0.01	<0.01	<0.01				
10/16/2019							0.0028 (J)	<0.01	<0.01
12/3/2019						0.0041 (J)			
3/3/2020	<0.01	<0.01	<0.01	<0.01	<0.01	0.0019 (J)			
3/5/2020							<0.01	<0.01	<0.01
8/18/2020	<0.01	<0.01	<0.01	<0.01	<0.01				
8/19/2020						0.003 (J)	<0.01	<0.01	<0.01
9/15/2020	<0.01	<0.01	<0.01	<0.01	<0.01				
9/16/2020						<0.01	0.0028 (J)	<0.01	<0.01



# Time Series

Constituent: Selenium (mg/L) Analysis Run 11/1/2020 11:46 AM View: Descriptive Pond E

Plant Branch Client: Southern Company Data: Plant Branch AP

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	BRGWC-36S	BRGWC-38S	BRGWC-37S
9/7/2016	0.0079 (J)	0.0311	
11/18/2016	<0.01 (J)		
11/21/2016		0.0409	
2/23/2017	0.0061 (J)	0.0354	<0.01
4/17/2017			<0.01
5/15/2017			<0.01
6/15/2017	0.0046 (J)	0.0511	<0.01
9/28/2017	0.0042 (J)	0.0484	<0.01
2/15/2018	0.0045 (J)	0.0435	<0.01
6/28/2018	0.0033 (J)	0.037	<0.01
12/19/2018	0.0042 (J)		<0.01
12/20/2018		0.037	
8/28/2019	0.0041 (J)		<0.01
8/29/2019		0.036	
10/16/2019		0.033	<0.01
12/3/2019	0.0035 (J)		
3/5/2020	0.0034 (J)	0.032	<0.01
8/19/2020	0.002 (J)	0.041	<0.01
9/16/2020	0.0031 (J)		<0.01
9/17/2020		0.029	

# Time Series

Constituent: Sulfate as SO4 (mg/L) Analysis Run 11/1/2020 11:46 AM View: Descriptive Pond E

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-2I (bg)	BRGWA-2S (bg)	BRGWA-5I (bg)	BRGWA-5S (bg)	BRGWA-6S (bg)	BRGWC-17S	BRGWC-33S	BRGWC-34S	BRGWC-35S
8/31/2016	7.5	0.38 (J)	2.7	0.81 (J)					
9/1/2016					0.6 (J)				
9/7/2016						97	260		260
9/8/2016								420	
11/15/2016				<1 (J)	<1 (J)				
11/16/2016	6.6	<1 (J)	3.4						
11/17/2016						120 (D)	235 (D)	445 (D)	285 (D)
2/20/2017			3.9 (B-01)	1 (B-01)	0.98 (J)				
2/21/2017	6.1	1.5							
2/22/2017						120	210	410	270
6/12/2017	5		3.7	0.94 (J)	0.54 (J)				
6/13/2017		0.67 (J)							
6/14/2017							200	410	
6/15/2017						130			280
9/26/2017	5.4	0.62 (J)	4.1	0.92 (J)	0.53 (J)				
9/27/2017							200	360	
9/28/2017						120			240
2/13/2018	4.7 (J)	<1	6.6	<1	<1				
2/15/2018						109	197	335	266
6/26/2018	6.2	0.69 (J)	3.5	0.91 (J)	0.54 (J)				
6/27/2018						118	200	296	278
12/18/2018	5.9	0.72 (J)	4.3	0.68 (J)	0.39 (J)		222	345	
12/19/2018						125			287
3/19/2019	6 (D)	0.78 (J)	3	0.74 (J)	0.68 (J)	126			
3/20/2019							204	329	268
10/15/2019	5.2	0.47 (J)	3.8	0.68 (J)	0.48 (J)				
10/16/2019							226	325	277
12/3/2019						180			
3/3/2020	7.1	0.93 (J)	2.8	0.71 (J)	2.5	95.4			
3/5/2020							173	287	269
9/15/2020	5.9	<1	1.7	<1	<1				
9/16/2020						151	154	283	270

# Time Series

Constituent: Sulfate as SO4 (mg/L) Analysis Run 11/1/2020 11:46 AM View: Descriptive Pond E

Plant Branch Client: Southern Company Data: Plant Branch AP

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	BRGWC-36S	BRGWC-38S	BRGWC-37S
9/7/2016	300	440	
11/18/2016	245 (D)		
11/21/2016		490 (D)	
2/23/2017	330	470	0.55 (J)
4/17/2017			0.44 (J)
5/15/2017			0.45 (J)
6/15/2017	310	490	0.46 (J)
9/28/2017	290	470	0.49 (J)
2/15/2018	292	432	1.9 (J,o)
6/28/2018	284	453	0.24 (J)
12/19/2018	319		0.4 (J)
12/20/2018		463	
3/19/2019	307		
3/20/2019		405	<1 (X)
10/16/2019		432	0.29 (J)
12/3/2019	256		
3/5/2020	262	370	<1
9/16/2020	256		<1
9/17/2020		356	

# Time Series

Constituent: Thallium (mg/L) Analysis Run 11/1/2020 11:46 AM View: Descriptive Pond E

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-2I (bg)	BRGWA-2S (bg)	BRGWA-5I (bg)	BRGWA-5S (bg)	BRGWA-6S (bg)	BRGWC-17S	BRGWC-33S	BRGWC-34S	BRGWC-35S
8/31/2016	<0.001	<0.001	<0.001	<0.001					
9/1/2016					<0.001				
9/7/2016						<0.001	0.0002 (J)		<0.001
9/8/2016								<0.001	
11/15/2016				<0.001	<0.001				
11/16/2016	<0.001	<0.001	<0.001						
11/17/2016						<0.001	<0.001 (J)	<0.001	<0.001
2/20/2017			<0.001	<0.001	<0.001				
2/21/2017	<0.001	<0.001							
2/22/2017						<0.001	0.0002 (J)	<0.001	<0.001
6/12/2017	<0.001		<0.001	<0.001	<0.001				
6/13/2017		<0.001							
6/14/2017							0.0002 (J)	<0.001	
6/15/2017						<0.001			<0.001
9/26/2017	<0.001	<0.001	<0.001	<0.001	<0.001				
9/27/2017							0.0002 (J)	<0.001	
9/28/2017						<0.001			<0.001
2/13/2018	<0.001	<0.001	<0.001	<0.001	<0.001				
2/15/2018						<0.001	0.00024 (J)	<0.001	<0.001
6/26/2018	<0.001	<0.001	<0.001	<0.001	<0.001				
6/27/2018						<0.001	0.00022 (J)	<0.001	<0.001
12/18/2018	<0.001	<0.001	<0.001	<0.001	<0.001		0.00022 (J)	<0.001	
12/19/2018						<0.001			<0.001
8/27/2019	<0.001	<0.001	<0.001	<0.001	<0.001		0.00016 (J)		
8/28/2019						<0.001	0.00016 (J)	<0.001	<0.001
10/15/2019	<0.001	<0.001	<0.001	<0.001	<0.001				
10/16/2019							0.00019 (J)	<0.001	<0.001
12/3/2019						6.6E-05 (J)			
3/3/2020	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001			
3/5/2020							0.0002 (J)	<0.001	<0.001
8/18/2020	<0.001	<0.001	<0.001	<0.001	<0.001				
8/19/2020						<0.001	0.00018 (J)	<0.001	<0.001
9/15/2020	<0.001	<0.001	<0.001	<0.001	<0.001				
9/16/2020						<0.001	0.00018 (J)	<0.001	<0.001

# Time Series

Constituent: Thallium (mg/L) Analysis Run 11/1/2020 11:46 AM View: Descriptive Pond E

Plant Branch Client: Southern Company Data: Plant Branch AP

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	BRGWC-36S	BRGWC-38S	BRGWC-37S
9/7/2016	<0.001	<0.001	
11/18/2016	<0.001		
11/21/2016		<0.001 (J)	
2/23/2017	<0.001	0.0003 (J)	<0.001
4/17/2017			<0.001
5/15/2017			<0.001
6/15/2017	<0.001	0.0003 (J)	<0.001
9/28/2017	<0.001	0.0003 (J)	<0.001
2/15/2018	<0.001	0.00026 (J)	<0.001
6/28/2018	<0.001	0.00018 (J)	<0.001
12/19/2018	<0.001		<0.001
12/20/2018		<0.001 (X)	
8/28/2019	<0.001		<0.001
8/29/2019		0.00021 (J)	
10/16/2019		0.0002 (J)	<0.001
12/3/2019	<0.001		
3/5/2020	<0.001	0.0002 (J)	<0.001
8/19/2020	<0.001	0.00019 (J)	<0.001
9/16/2020	<0.001		<0.001
9/17/2020		0.00017 (J)	

# Time Series

Constituent: Total Dissolved Solids [TDS] (mg/L) Analysis Run 11/1/2020 11:46 AM View: Descriptive Pond E

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-2I (bg)	BRGWA-2S (bg)	BRGWA-5I (bg)	BRGWA-5S (bg)	BRGWA-6S (bg)	BRGWC-17S	BRGWC-33S	BRGWC-34S	BRGWC-35S
8/31/2016	151	88	138	154					
9/1/2016					299				
9/7/2016						331	382		486
9/8/2016								663	
11/15/2016				123	41				
11/16/2016	69	41	77						
11/17/2016						308	382	651	453
2/20/2017			170	158	133				
2/21/2017	68	<10							
2/22/2017						341	387	706	541
6/12/2017	161		132	142	61				
6/13/2017		53							
6/14/2017							316	643	
6/15/2017						333			548
9/26/2017	167	45	108	138	29				
9/27/2017							303	579	
9/28/2017						310			487
2/13/2018	165	63	141	150	61				
2/15/2018						292	332	612	500
6/26/2018	188	71	133	154	71				
6/27/2018						353 (X)	538 (X)	359 (X)	347 (X)
12/18/2018	145 (X)	78 (X)	138 (X)	147	70 (X)		358	535	
12/19/2018						317			489
3/19/2019	146.5 (D)	68	130	146	72	303			
3/20/2019							338	517	501
10/15/2019	140	66	175	144	63				
10/16/2019							281	473	481
12/3/2019						378			
3/3/2020	155	41	<10	130	54	263			
3/5/2020							292	489	535
9/15/2020	116	69	100	116	79				
9/16/2020						316	88	392	474

# Time Series

Constituent: Total Dissolved Solids [TDS] (mg/L) Analysis Run 11/1/2020 11:46 AM View: Descriptive Pond E

Plant Branch Client: Southern Company Data: Plant Branch AP

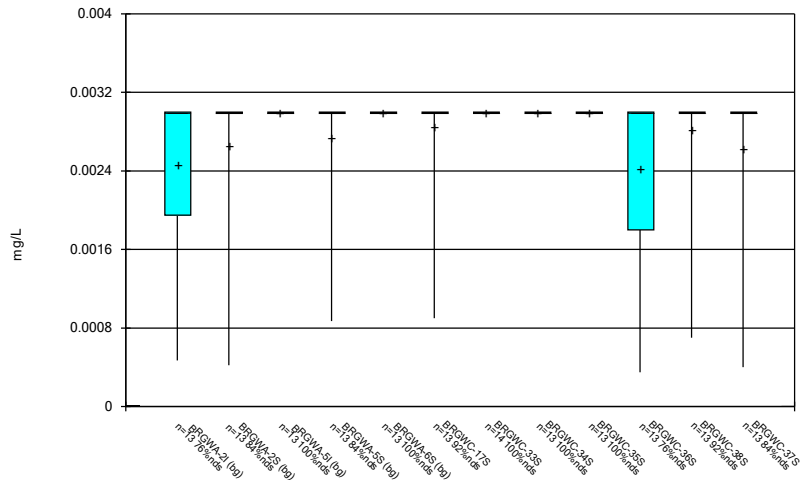
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	BRGWC-36S	BRGWC-38S	BRGWC-37S
9/7/2016	528	750	
11/18/2016	524		
11/21/2016		795	
2/23/2017	517	733	45
4/17/2017			53
5/15/2017			48
6/15/2017	566	812	63
9/28/2017	475	690	39
2/15/2018	513	722	54
6/28/2018	499	704	59 (X)
12/19/2018	521		68
12/20/2018		642	
3/19/2019	498		
3/20/2019		615	68 (X)
10/16/2019		630	49
12/3/2019	498		
3/5/2020	457	608	39
9/16/2020	463		31
9/17/2020		587	

FIGURE B.

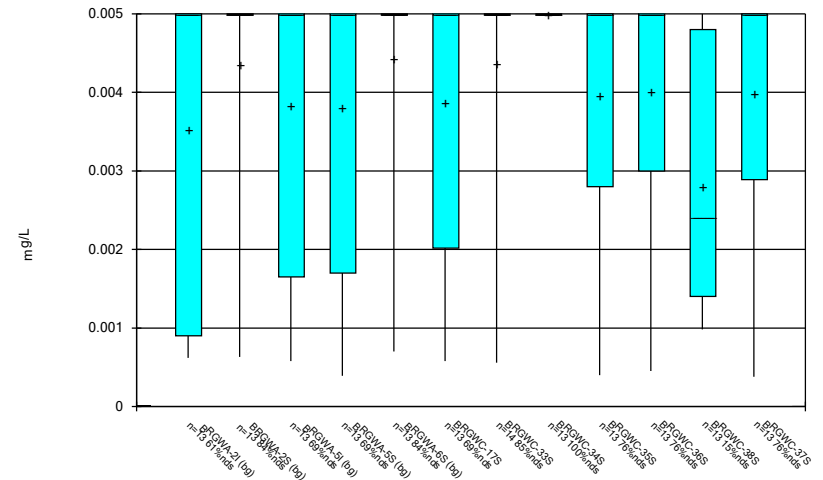


Box & Whiskers Plot



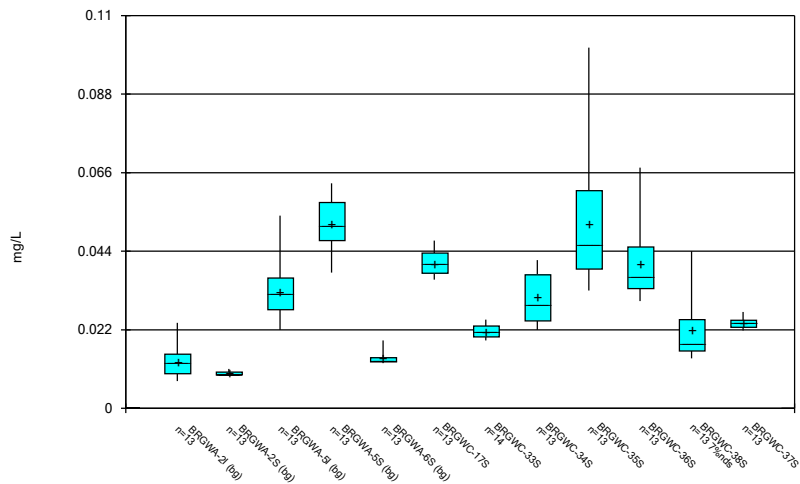
Constituent: Antimony Analysis Run 11/1/2020 11:48 AM View: Descriptive Pond E  
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



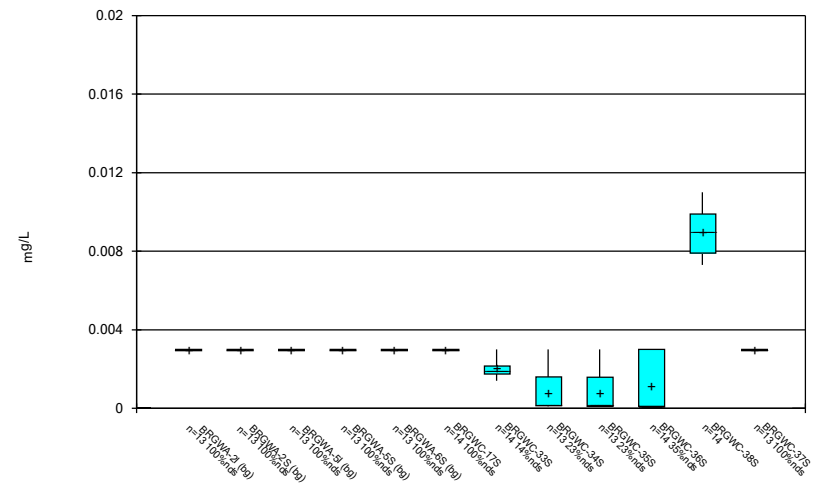
Constituent: Arsenic Analysis Run 11/1/2020 11:48 AM View: Descriptive Pond E  
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



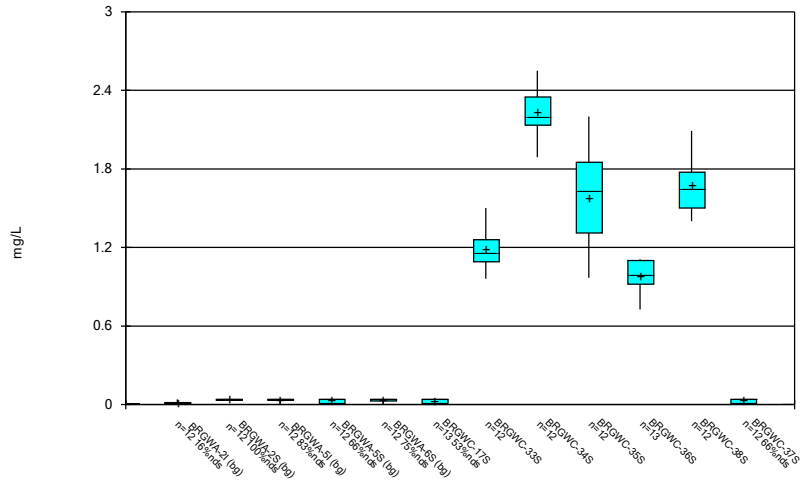
Constituent: Barium Analysis Run 11/1/2020 11:48 AM View: Descriptive Pond E  
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



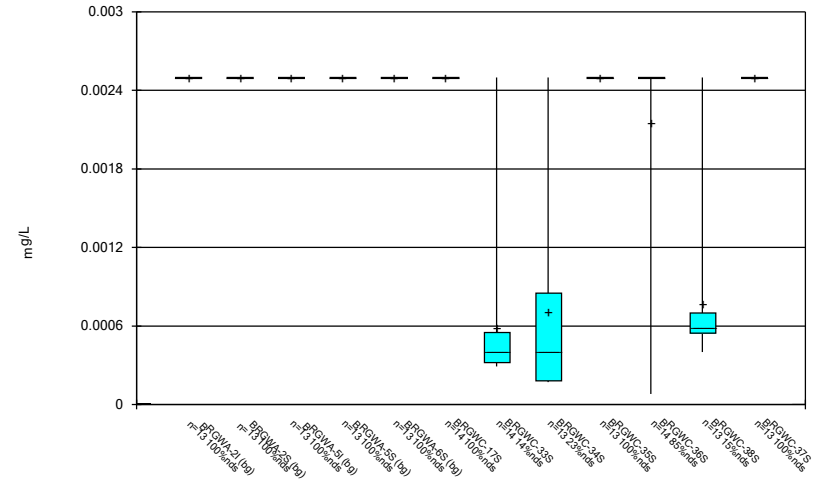
Constituent: Beryllium Analysis Run 11/1/2020 11:48 AM View: Descriptive Pond E  
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



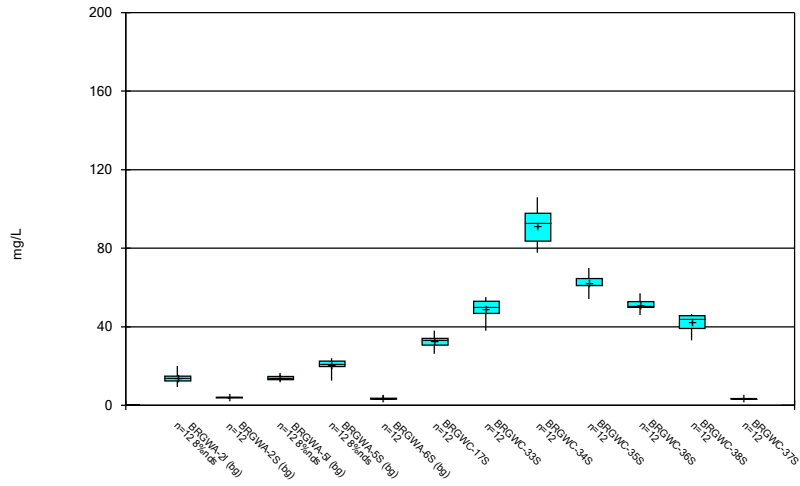
Constituent: Boron Analysis Run 11/1/2020 11:48 AM View: Descriptive Pond E  
Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



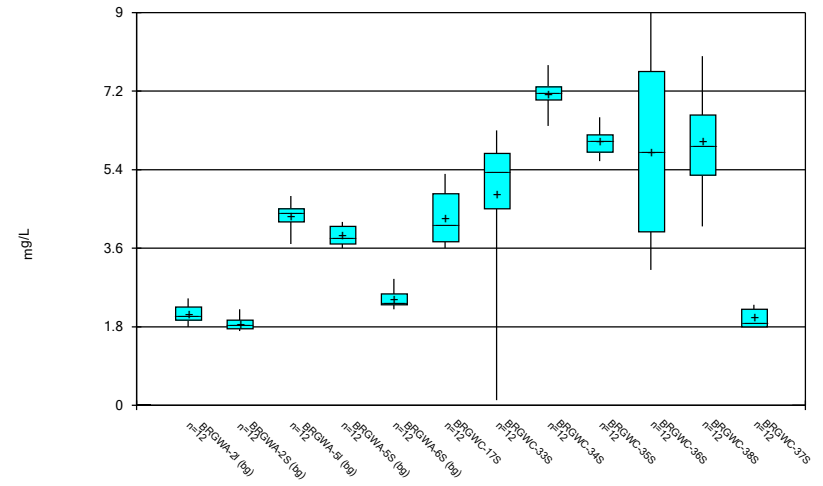
Constituent: Cadmium Analysis Run 11/1/2020 11:48 AM View: Descriptive Pond E  
Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



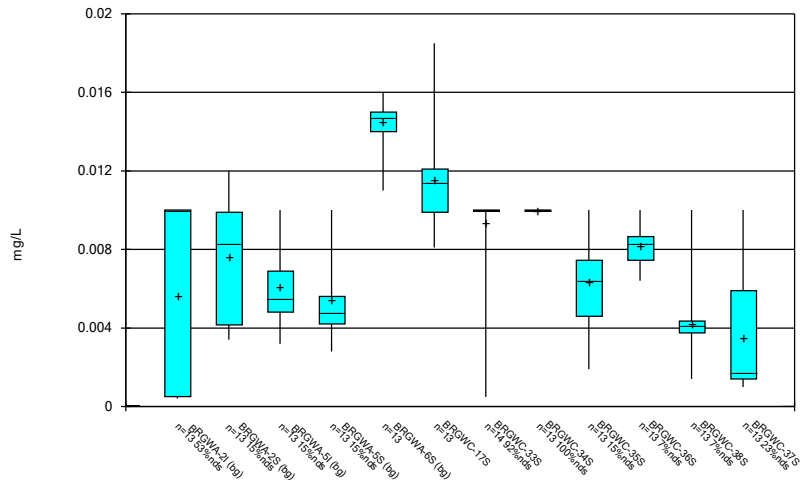
Constituent: Calcium Analysis Run 11/1/2020 11:48 AM View: Descriptive Pond E  
Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



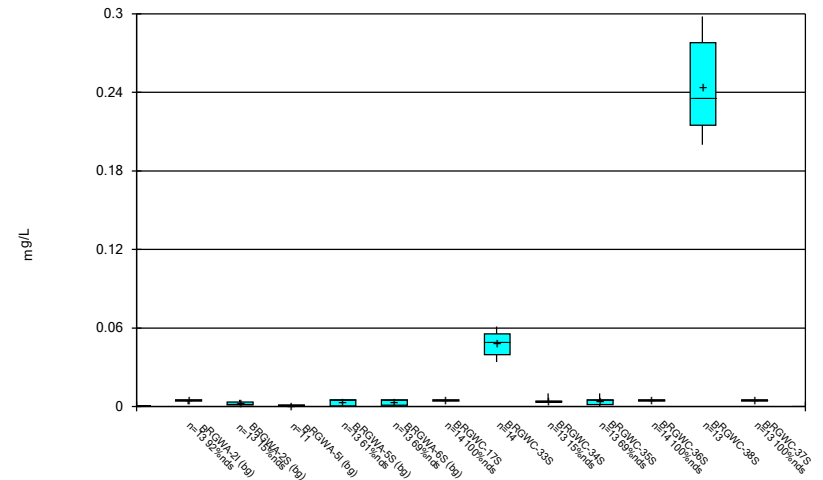
Constituent: Chloride, Total Analysis Run 11/1/2020 11:48 AM View: Descriptive Pond E  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Box & Whiskers Plot



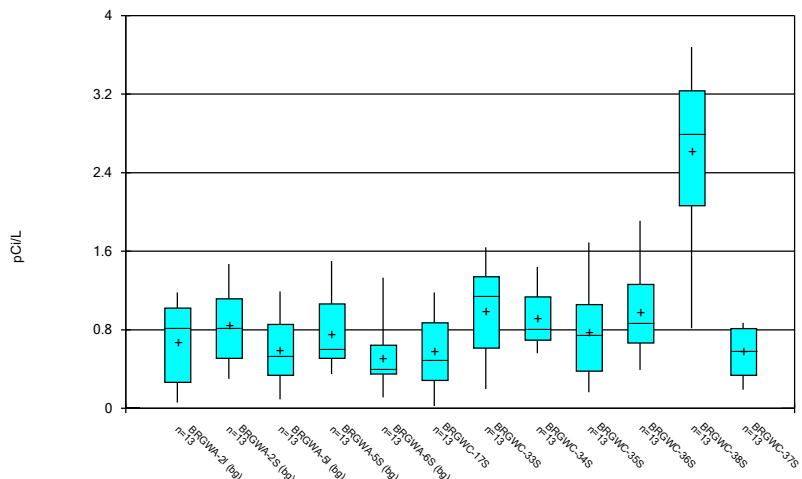
Constituent: Chromium Analysis Run 11/1/2020 11:48 AM View: Descriptive Pond E  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Box & Whiskers Plot



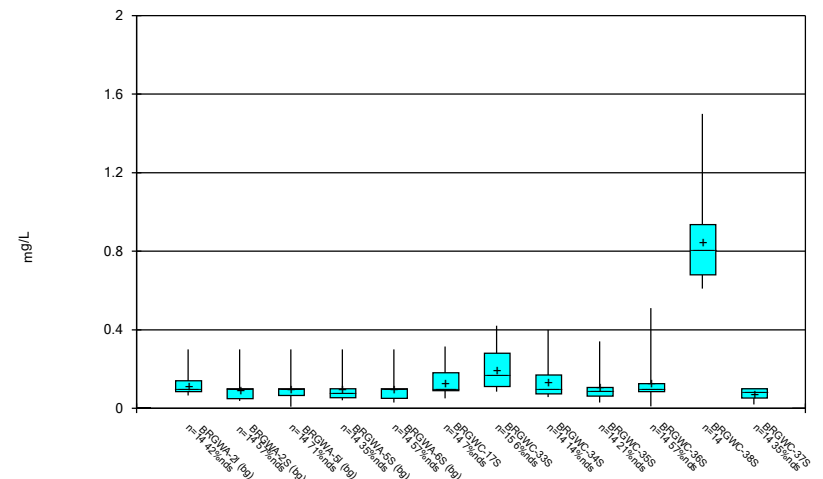
Constituent: Cobalt Analysis Run 11/1/2020 11:48 AM View: Descriptive Pond E  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Box & Whiskers Plot



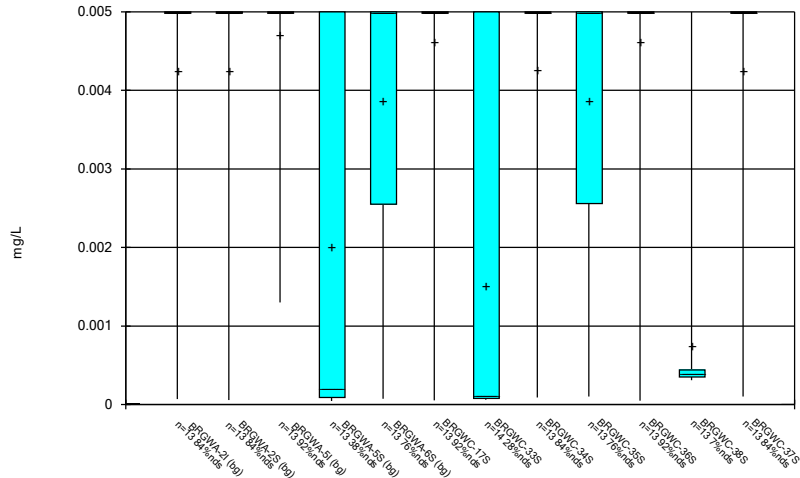
Constituent: Combined Radium 226 + 228 Analysis Run 11/1/2020 11:48 AM View: Descriptive Pond E  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Box & Whiskers Plot



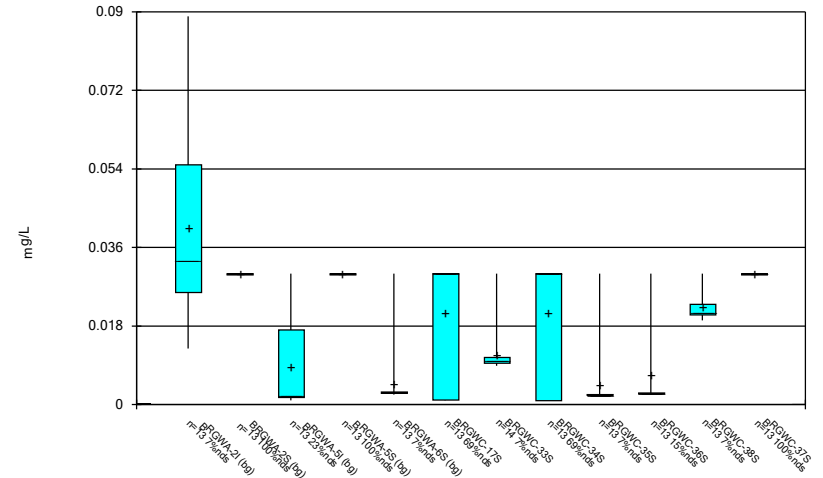
Constituent: Fluoride Analysis Run 11/1/2020 11:48 AM View: Descriptive Pond E  
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



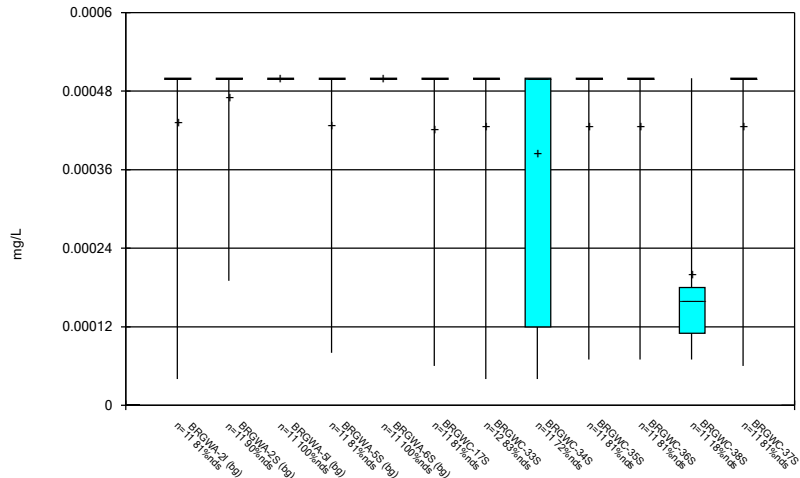
Constituent: Lead Analysis Run 11/1/2020 11:48 AM View: Descriptive Pond E  
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



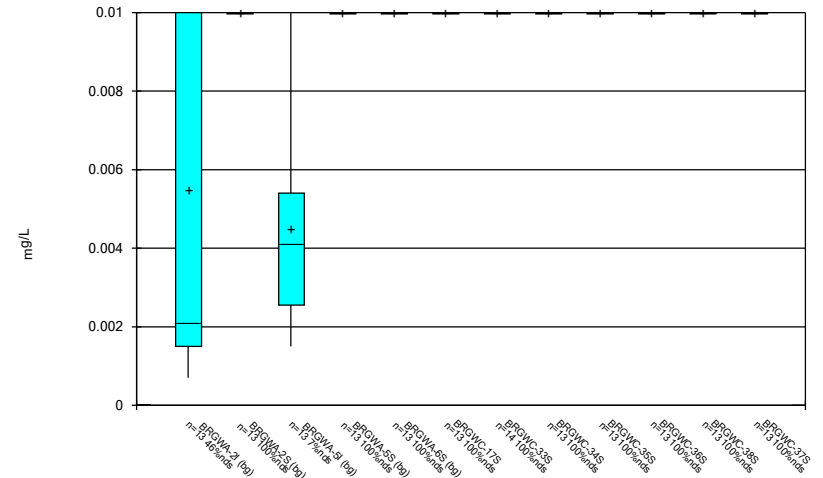
Constituent: Lithium Analysis Run 11/1/2020 11:48 AM View: Descriptive Pond E  
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



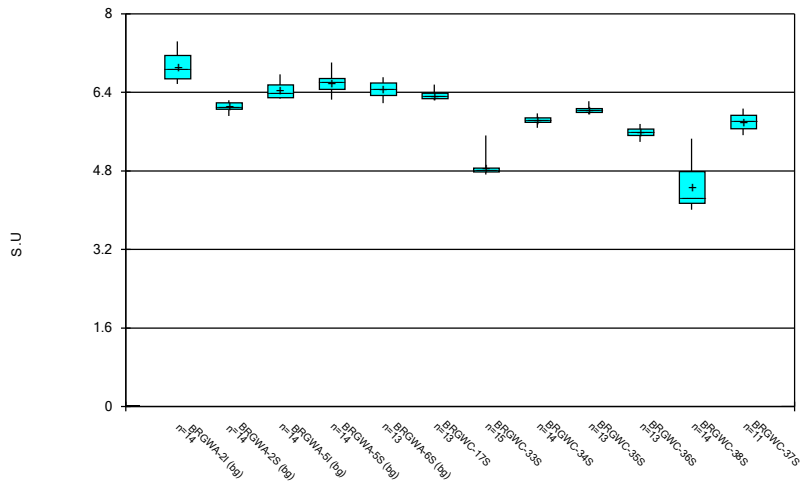
Constituent: Mercury Analysis Run 11/1/2020 11:48 AM View: Descriptive Pond E  
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



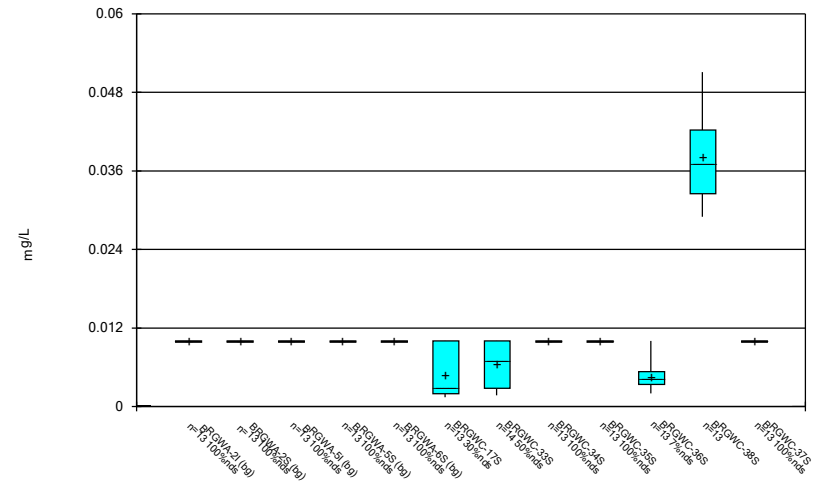
Constituent: Molybdenum Analysis Run 11/1/2020 11:48 AM View: Descriptive Pond E  
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



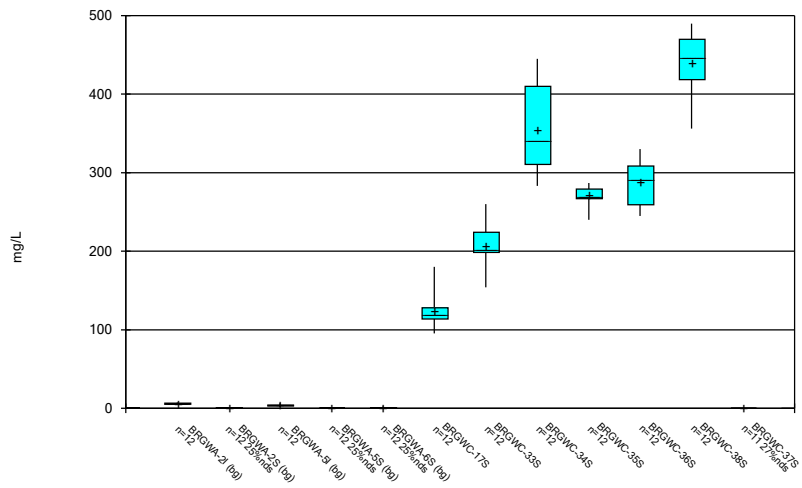
Constituent: pH, Field Analysis Run 11/1/2020 11:48 AM View: Descriptive Pond E  
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



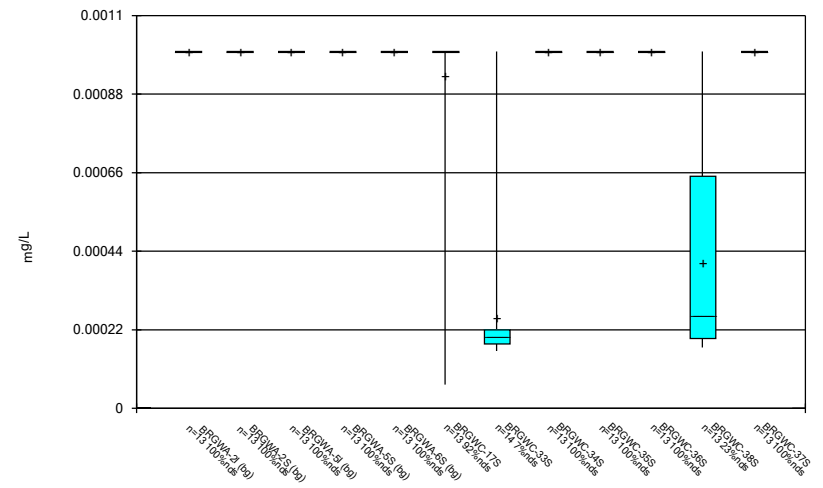
Constituent: Selenium Analysis Run 11/1/2020 11:48 AM View: Descriptive Pond E  
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



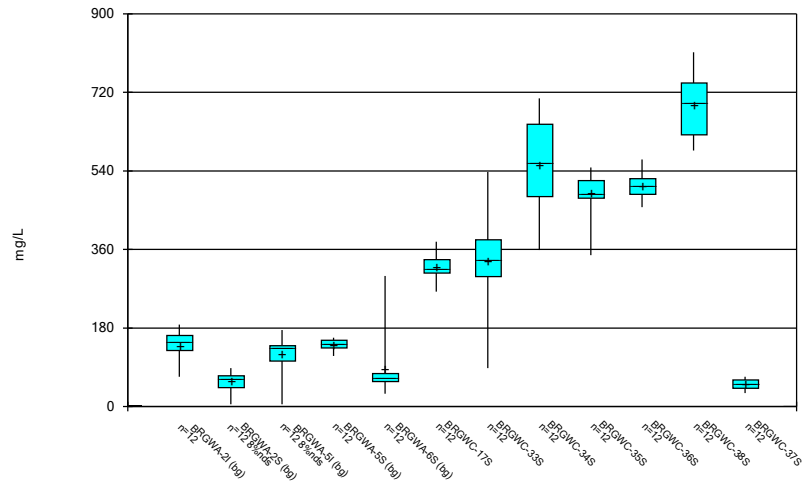
Constituent: Sulfate as SO4 Analysis Run 11/1/2020 11:48 AM View: Descriptive Pond E  
 Plant Branch Client: Southern Company Data: Plant Branch AP

Box & Whiskers Plot



Constituent: Thallium Analysis Run 11/1/2020 11:48 AM View: Descriptive Pond E  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Box & Whiskers Plot



Constituent: Total Dissolved Solids [TDS] Analysis Run 11/1/2020 11:48 AM View: Descriptive Pond E  
Plant Branch Client: Southern Company Data: Plant Branch AP

FIGURE C.

# Outlier Summary

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 11/1/2020, 11:31 AM

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BRGWA-5I Cobalt (mg/L)  
BRGWC-37S Sulfate as SO4 (mg/L)

11/16/2016	<0.01 (o)	
2/13/2018	<0.01 (o)	
2/15/2018		1.9 (J.o)



FIGURE D.

# Interwell Prediction Limit Summary - Significant Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 11/1/2020, 11:16 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	BRGWC-33S	0.04	n/a	9/16/2020	1.1	Yes	60	n/a	n/a	68.33	n/a	n/a	0.0005205	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-34S	0.04	n/a	9/16/2020	2.2	Yes	60	n/a	n/a	68.33	n/a	n/a	0.0005205	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-35S	0.04	n/a	9/16/2020	1.9	Yes	60	n/a	n/a	68.33	n/a	n/a	0.0005205	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-36S	0.04	n/a	9/16/2020	0.99	Yes	60	n/a	n/a	68.33	n/a	n/a	0.0005205	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-38S	0.04	n/a	9/17/2020	1.4	Yes	60	n/a	n/a	68.33	n/a	n/a	0.0005205	NP Inter (NDs) 1 of 2
Calcium (mg/L)	BRGWC-17S	24	n/a	9/16/2020	37.9	Yes	60	n/a	n/a	5	n/a	n/a	0.0005205	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-33S	24	n/a	9/16/2020	37.9	Yes	60	n/a	n/a	5	n/a	n/a	0.0005205	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-34S	24	n/a	9/16/2020	77.7	Yes	60	n/a	n/a	5	n/a	n/a	0.0005205	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-35S	24	n/a	9/16/2020	61.8	Yes	60	n/a	n/a	5	n/a	n/a	0.0005205	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-36S	24	n/a	9/16/2020	45.9	Yes	60	n/a	n/a	5	n/a	n/a	0.0005205	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-38S	24	n/a	9/17/2020	33.1	Yes	60	n/a	n/a	5	n/a	n/a	0.0005205	NP Inter (normality) 1 of 2
Chloride, Total (mg/L)	BRGWC-34S	4.8	n/a	9/16/2020	6.6	Yes	60	n/a	n/a	0	n/a	n/a	0.0005205	NP Inter (normality) 1 of 2
Chloride, Total (mg/L)	BRGWC-35S	4.8	n/a	9/16/2020	6	Yes	60	n/a	n/a	0	n/a	n/a	0.0005205	NP Inter (normality) 1 of 2
Chloride, Total (mg/L)	BRGWC-36S	4.8	n/a	9/16/2020	7.9	Yes	60	n/a	n/a	0	n/a	n/a	0.0005205	NP Inter (normality) 1 of 2
Chloride, Total (mg/L)	BRGWC-38S	4.8	n/a	9/17/2020	6.1	Yes	60	n/a	n/a	0	n/a	n/a	0.0005205	NP Inter (normality) 1 of 2
Fluoride (mg/L)	BRGWC-38S	0.3	n/a	9/17/2020	0.68	Yes	70	n/a	n/a	52.86	n/a	n/a	0.0003866	NP Inter (NDs) 1 of 2
pH, Field (S.U)	BRGWC-33S	7.108	5.895	9/16/2020	4.78	Yes	69	6.501	0.3176	0	None	No	0.0005373	Param Inter 1 of 2
pH, Field (S.U)	BRGWC-34S	7.108	5.895	9/16/2020	5.81	Yes	69	6.501	0.3176	0	None	No	0.0005373	Param Inter 1 of 2
pH, Field (S.U)	BRGWC-36S	7.108	5.895	9/16/2020	5.58	Yes	69	6.501	0.3176	0	None	No	0.0005373	Param Inter 1 of 2
pH, Field (S.U)	BRGWC-38S	7.108	5.895	9/17/2020	4.17	Yes	69	6.501	0.3176	0	None	No	0.0005373	Param Inter 1 of 2
pH, Field (S.U)	BRGWC-37S	7.108	5.895	9/16/2020	5.84	Yes	69	6.501	0.3176	0	None	No	0.0005373	Param Inter 1 of 2
Sulfate as SO4 (mg/L)	BRGWC-17S	7.5	n/a	9/16/2020	151	Yes	60	n/a	n/a	15	n/a	n/a	0.0005205	NP Inter (normality) 1 of 2
Sulfate as SO4 (mg/L)	BRGWC-33S	7.5	n/a	9/16/2020	154	Yes	60	n/a	n/a	15	n/a	n/a	0.0005205	NP Inter (normality) 1 of 2
Sulfate as SO4 (mg/L)	BRGWC-34S	7.5	n/a	9/16/2020	283	Yes	60	n/a	n/a	15	n/a	n/a	0.0005205	NP Inter (normality) 1 of 2
Sulfate as SO4 (mg/L)	BRGWC-35S	7.5	n/a	9/16/2020	270	Yes	60	n/a	n/a	15	n/a	n/a	0.0005205	NP Inter (normality) 1 of 2
Sulfate as SO4 (mg/L)	BRGWC-36S	7.5	n/a	9/16/2020	256	Yes	60	n/a	n/a	15	n/a	n/a	0.0005205	NP Inter (normality) 1 of 2
Sulfate as SO4 (mg/L)	BRGWC-38S	7.5	n/a	9/17/2020	356	Yes	60	n/a	n/a	15	n/a	n/a	0.0005205	NP Inter (normality) 1 of 2
Total Dissolved Solids [TDS] (mg/L)	BRGWC-17S	299	n/a	9/16/2020	316	Yes	60	n/a	n/a	3.333	n/a	n/a	0.0005205	NP Inter (normality) 1 of 2
Total Dissolved Solids [TDS] (mg/L)	BRGWC-34S	299	n/a	9/16/2020	392	Yes	60	n/a	n/a	3.333	n/a	n/a	0.0005205	NP Inter (normality) 1 of 2
Total Dissolved Solids [TDS] (mg/L)	BRGWC-35S	299	n/a	9/16/2020	474	Yes	60	n/a	n/a	3.333	n/a	n/a	0.0005205	NP Inter (normality) 1 of 2
Total Dissolved Solids [TDS] (mg/L)	BRGWC-36S	299	n/a	9/16/2020	463	Yes	60	n/a	n/a	3.333	n/a	n/a	0.0005205	NP Inter (normality) 1 of 2
Total Dissolved Solids [TDS] (mg/L)	BRGWC-38S	299	n/a	9/17/2020	587	Yes	60	n/a	n/a	3.333	n/a	n/a	0.0005205	NP Inter (normality) 1 of 2

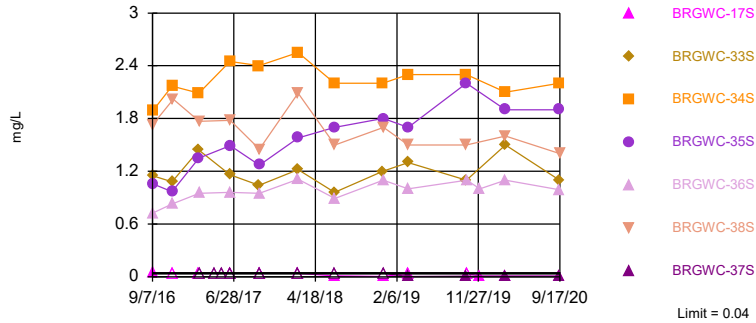
# Interwell Prediction Limit Summary - All Results

Plant Branch    Client: Southern Company    Data: Plant Branch AP    Printed 11/1/2020, 11:16 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	BRGWC-17S	0.04	n/a	9/16/2020	0.0066J	No	60	n/a	n/a	68.33	n/a	n/a	0.0005205	NP Inter (NDs) 1 of 2
<b>Boron (mg/L)</b>	<b>BRGWC-33S</b>	<b>0.04</b>	<b>n/a</b>	<b>9/16/2020</b>	<b>1.1</b>	<b>Yes</b>	<b>60</b>	<b>n/a</b>	<b>n/a</b>	<b>68.33</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0005205</b>	<b>NP Inter (NDs) 1 of 2</b>
Boron (mg/L)	BRGWC-34S	0.04	n/a	9/16/2020	2.2	Yes	60	n/a	n/a	68.33	n/a	n/a	0.0005205	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-35S	0.04	n/a	9/16/2020	1.9	Yes	60	n/a	n/a	68.33	n/a	n/a	0.0005205	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-36S	0.04	n/a	9/16/2020	0.99	Yes	60	n/a	n/a	68.33	n/a	n/a	0.0005205	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-38S	0.04	n/a	9/17/2020	1.4	Yes	60	n/a	n/a	68.33	n/a	n/a	0.0005205	NP Inter (NDs) 1 of 2
Boron (mg/L)	BRGWC-37S	0.04	n/a	9/16/2020	0.0062J	No	60	n/a	n/a	68.33	n/a	n/a	0.0005205	NP Inter (NDs) 1 of 2
Calcium (mg/L)	BRGWC-17S	24	n/a	9/16/2020	37.9	Yes	60	n/a	n/a	5	n/a	n/a	0.0005205	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-33S	24	n/a	9/16/2020	37.9	Yes	60	n/a	n/a	5	n/a	n/a	0.0005205	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-34S	24	n/a	9/16/2020	77.7	Yes	60	n/a	n/a	5	n/a	n/a	0.0005205	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-35S	24	n/a	9/16/2020	61.8	Yes	60	n/a	n/a	5	n/a	n/a	0.0005205	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-36S	24	n/a	9/16/2020	45.9	Yes	60	n/a	n/a	5	n/a	n/a	0.0005205	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-38S	24	n/a	9/17/2020	33.1	Yes	60	n/a	n/a	5	n/a	n/a	0.0005205	NP Inter (normality) 1 of 2
Calcium (mg/L)	BRGWC-37S	24	n/a	9/16/2020	3.2	No	60	n/a	n/a	5	n/a	n/a	0.0005205	NP Inter (normality) 1 of 2
Chloride, Total (mg/L)	BRGWC-17S	4.8	n/a	9/16/2020	4.2	No	60	n/a	n/a	0	n/a	n/a	0.0005205	NP Inter (normality) 1 of 2
Chloride, Total (mg/L)	BRGWC-33S	4.8	n/a	9/16/2020	4.1	No	60	n/a	n/a	0	n/a	n/a	0.0005205	NP Inter (normality) 1 of 2
<b>Chloride, Total (mg/L)</b>	<b>BRGWC-34S</b>	<b>4.8</b>	<b>n/a</b>	<b>9/16/2020</b>	<b>6.6</b>	<b>Yes</b>	<b>60</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0005205</b>	<b>NP Inter (normality) 1 of 2</b>
<b>Chloride, Total (mg/L)</b>	<b>BRGWC-35S</b>	<b>4.8</b>	<b>n/a</b>	<b>9/16/2020</b>	<b>6</b>	<b>Yes</b>	<b>60</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0005205</b>	<b>NP Inter (normality) 1 of 2</b>
<b>Chloride, Total (mg/L)</b>	<b>BRGWC-36S</b>	<b>4.8</b>	<b>n/a</b>	<b>9/16/2020</b>	<b>7.9</b>	<b>Yes</b>	<b>60</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0005205</b>	<b>NP Inter (normality) 1 of 2</b>
<b>Chloride, Total (mg/L)</b>	<b>BRGWC-38S</b>	<b>4.8</b>	<b>n/a</b>	<b>9/17/2020</b>	<b>6.1</b>	<b>Yes</b>	<b>60</b>	<b>n/a</b>	<b>n/a</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0005205</b>	<b>NP Inter (normality) 1 of 2</b>
Chloride, Total (mg/L)	BRGWC-37S	4.8	n/a	9/16/2020	1.8	No	60	n/a	n/a	0	n/a	n/a	0.0005205	NP Inter (normality) 1 of 2
Fluoride (mg/L)	BRGWC-17S	0.3	n/a	9/16/2020	0.1	No	70	n/a	n/a	52.86	n/a	n/a	0.0003866	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BRGWC-33S	0.3	n/a	9/16/2020	0.085J	No	70	n/a	n/a	52.86	n/a	n/a	0.0003866	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BRGWC-34S	0.3	n/a	9/16/2020	0.077J	No	70	n/a	n/a	52.86	n/a	n/a	0.0003866	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BRGWC-35S	0.3	n/a	9/16/2020	0.062J	No	70	n/a	n/a	52.86	n/a	n/a	0.0003866	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BRGWC-36S	0.3	n/a	9/16/2020	0.1ND	No	70	n/a	n/a	52.86	n/a	n/a	0.0003866	NP Inter (NDs) 1 of 2
<b>Fluoride (mg/L)</b>	<b>BRGWC-38S</b>	<b>0.3</b>	<b>n/a</b>	<b>9/17/2020</b>	<b>0.68</b>	<b>Yes</b>	<b>70</b>	<b>n/a</b>	<b>n/a</b>	<b>52.86</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0003866</b>	<b>NP Inter (NDs) 1 of 2</b>
Fluoride (mg/L)	BRGWC-37S	0.3	n/a	9/16/2020	0.1ND	No	70	n/a	n/a	52.86	n/a	n/a	0.0003866	NP Inter (NDs) 1 of 2
pH, Field (S.U)	BRGWC-17S	7.108	5.895	9/16/2020	6.26	No	69	6.501	0.3176	0	None	No	0.0005373	Param Inter 1 of 2
<b>pH, Field (S.U)</b>	<b>BRGWC-33S</b>	<b>7.108</b>	<b>5.895</b>	<b>9/16/2020</b>	<b>4.78</b>	<b>Yes</b>	<b>69</b>	<b>6.501</b>	<b>0.3176</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.0005373</b>	<b>Param Inter 1 of 2</b>
<b>pH, Field (S.U)</b>	<b>BRGWC-34S</b>	<b>7.108</b>	<b>5.895</b>	<b>9/16/2020</b>	<b>5.81</b>	<b>Yes</b>	<b>69</b>	<b>6.501</b>	<b>0.3176</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.0005373</b>	<b>Param Inter 1 of 2</b>
pH, Field (S.U)	BRGWC-35S	7.108	5.895	9/16/2020	5.96	No	69	6.501	0.3176	0	None	No	0.0005373	Param Inter 1 of 2
<b>pH, Field (S.U)</b>	<b>BRGWC-36S</b>	<b>7.108</b>	<b>5.895</b>	<b>9/16/2020</b>	<b>5.58</b>	<b>Yes</b>	<b>69</b>	<b>6.501</b>	<b>0.3176</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.0005373</b>	<b>Param Inter 1 of 2</b>
<b>pH, Field (S.U)</b>	<b>BRGWC-38S</b>	<b>7.108</b>	<b>5.895</b>	<b>9/17/2020</b>	<b>4.17</b>	<b>Yes</b>	<b>69</b>	<b>6.501</b>	<b>0.3176</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.0005373</b>	<b>Param Inter 1 of 2</b>
<b>pH, Field (S.U)</b>	<b>BRGWC-37S</b>	<b>7.108</b>	<b>5.895</b>	<b>9/16/2020</b>	<b>5.84</b>	<b>Yes</b>	<b>69</b>	<b>6.501</b>	<b>0.3176</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.0005373</b>	<b>Param Inter 1 of 2</b>
Sulfate as SO4 (mg/L)	BRGWC-17S	7.5	n/a	9/16/2020	151	Yes	60	n/a	n/a	15	n/a	n/a	0.0005205	NP Inter (normality) 1 of 2
Sulfate as SO4 (mg/L)	BRGWC-33S	7.5	n/a	9/16/2020	154	Yes	60	n/a	n/a	15	n/a	n/a	0.0005205	NP Inter (normality) 1 of 2
Sulfate as SO4 (mg/L)	BRGWC-34S	7.5	n/a	9/16/2020	283	Yes	60	n/a	n/a	15	n/a	n/a	0.0005205	NP Inter (normality) 1 of 2
Sulfate as SO4 (mg/L)	BRGWC-35S	7.5	n/a	9/16/2020	270	Yes	60	n/a	n/a	15	n/a	n/a	0.0005205	NP Inter (normality) 1 of 2
Sulfate as SO4 (mg/L)	BRGWC-36S	7.5	n/a	9/16/2020	256	Yes	60	n/a	n/a	15	n/a	n/a	0.0005205	NP Inter (normality) 1 of 2
Sulfate as SO4 (mg/L)	BRGWC-38S	7.5	n/a	9/17/2020	356	Yes	60	n/a	n/a	15	n/a	n/a	0.0005205	NP Inter (normality) 1 of 2
Sulfate as SO4 (mg/L)	BRGWC-37S	7.5	n/a	9/16/2020	0.5ND	No	60	n/a	n/a	15	n/a	n/a	0.0005205	NP Inter (normality) 1 of 2
<b>Total Dissolved Solids [TDS] (mg/L)</b>	<b>BRGWC-17S</b>	<b>299</b>	<b>n/a</b>	<b>9/16/2020</b>	<b>316</b>	<b>Yes</b>	<b>60</b>	<b>n/a</b>	<b>n/a</b>	<b>3.333</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0005205</b>	<b>NP Inter (normality) 1 of 2</b>
Total Dissolved Solids [TDS] (mg/L)	BRGWC-33S	299	n/a	9/16/2020	88	No	60	n/a	n/a	3.333	n/a	n/a	0.0005205	NP Inter (normality) 1 of 2
<b>Total Dissolved Solids [TDS] (mg/L)</b>	<b>BRGWC-34S</b>	<b>299</b>	<b>n/a</b>	<b>9/16/2020</b>	<b>392</b>	<b>Yes</b>	<b>60</b>	<b>n/a</b>	<b>n/a</b>	<b>3.333</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0005205</b>	<b>NP Inter (normality) 1 of 2</b>
<b>Total Dissolved Solids [TDS] (mg/L)</b>	<b>BRGWC-35S</b>	<b>299</b>	<b>n/a</b>	<b>9/16/2020</b>	<b>474</b>	<b>Yes</b>	<b>60</b>	<b>n/a</b>	<b>n/a</b>	<b>3.333</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0005205</b>	<b>NP Inter (normality) 1 of 2</b>
<b>Total Dissolved Solids [TDS] (mg/L)</b>	<b>BRGWC-36S</b>	<b>299</b>	<b>n/a</b>	<b>9/16/2020</b>	<b>463</b>	<b>Yes</b>	<b>60</b>	<b>n/a</b>	<b>n/a</b>	<b>3.333</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0005205</b>	<b>NP Inter (normality) 1 of 2</b>
<b>Total Dissolved Solids [TDS] (mg/L)</b>	<b>BRGWC-38S</b>	<b>299</b>	<b>n/a</b>	<b>9/17/2020</b>	<b>587</b>	<b>Yes</b>	<b>60</b>	<b>n/a</b>	<b>n/a</b>	<b>3.333</b>	<b>n/a</b>	<b>n/a</b>	<b>0.0005205</b>	<b>NP Inter (normality) 1 of 2</b>
Total Dissolved Solids [TDS] (mg/L)	BRGWC-37S	299	n/a	9/16/2020	31	No	60	n/a	n/a	3.333	n/a	n/a	0.0005205	NP Inter (normality) 1 of 2

Exceeds Limit: BRGWC-33S, BRGWC-34S, BRGWC-35S, BRGWC-36S, BRGWC-38S

Prediction Limit  
Interwell Non-parametric

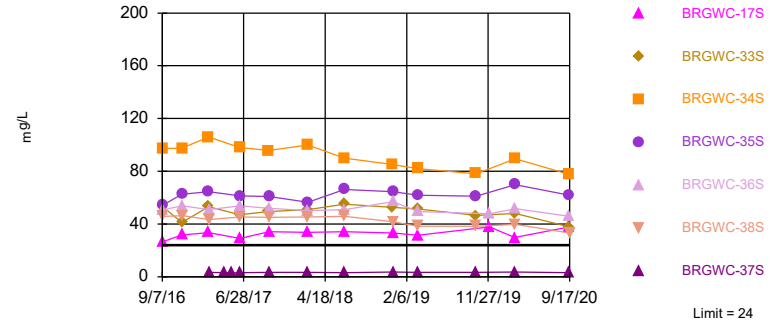


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 60 background values. 68.33% NDs. Annual per-constituent alpha = 0.007263. Individual comparison alpha = 0.0005205 (1 of 2). Comparing 7 points to limit.

Constituent: Boron Analysis Run 11/1/2020 11:13 AM View: PL's Pond E  
Plant Branch Client: Southern Company Data: Plant Branch AP

Exceeds Limit: BRGWC-17S, BRGWC-33S, BRGWC-34S, BRGWC-35S, BRGWC-36S, BRGWC-38S

Prediction Limit  
Interwell Non-parametric

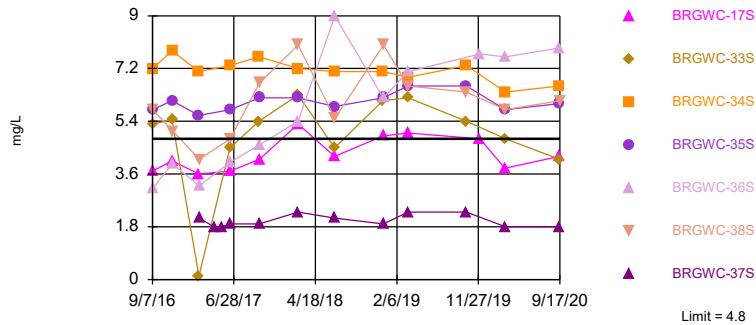


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 60 background values. 5% NDs. Annual per-constituent alpha = 0.007263. Individual comparison alpha = 0.0005205 (1 of 2). Comparing 7 points to limit.

Constituent: Calcium Analysis Run 11/1/2020 11:14 AM View: PL's Pond E  
Plant Branch Client: Southern Company Data: Plant Branch AP

Exceeds Limit: BRGWC-34S, BRGWC-35S, BRGWC-36S, BRGWC-38S

Prediction Limit  
Interwell Non-parametric

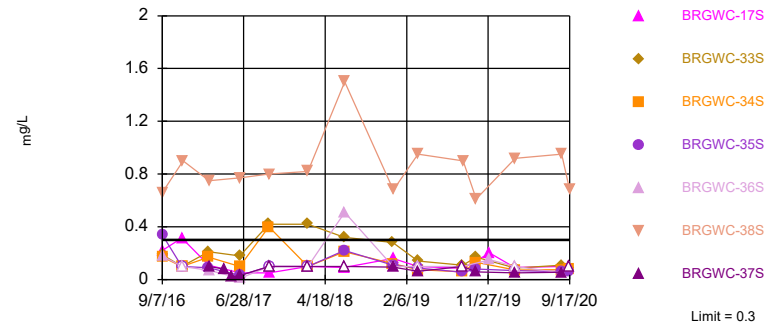


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 60 background values. Annual per-constituent alpha = 0.007263. Individual comparison alpha = 0.0005205 (1 of 2). Comparing 7 points to limit.

Constituent: Chloride, Total Analysis Run 11/1/2020 11:14 AM View: PL's Pond E  
Plant Branch Client: Southern Company Data: Plant Branch AP

Exceeds Limit: BRGWC-38S

Prediction Limit  
Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 70 background values. 52.86% NDs. Annual per-constituent alpha = 0.005399. Individual comparison alpha = 0.0003866 (1 of 2). Comparing 7 points to limit.

Constituent: Fluoride Analysis Run 11/1/2020 11:14 AM View: PL's Pond E  
Plant Branch Client: Southern Company Data: Plant Branch AP



# Prediction Limit

Constituent: Boron (mg/L) Analysis Run 11/1/2020 11:16 AM View: PL's Pond E

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-17S	BRGWC-34S	BRGWC-37S
8/31/2016			
9/1/2016			
9/7/2016	0.0449 (J)		
9/8/2016		1.89	
11/15/2016			
11/16/2016			
11/17/2016	<0.04	2.17	
11/18/2016			
11/21/2016			
2/20/2017			
2/21/2017			
2/22/2017	<0.04	2.09	
2/23/2017			<0.04
4/17/2017			<0.04
5/15/2017			<0.04
6/12/2017			
6/13/2017			
6/14/2017		2.45	
6/15/2017	<0.04		<0.04
9/26/2017			
9/27/2017		2.4	
9/28/2017	<0.04		<0.04
2/13/2018			
2/15/2018	<0.04	2.55	<0.04
6/26/2018			
6/27/2018	0.0088 (J+X)	2.2 (J+X)	
6/28/2018			<0.04 (X)
12/18/2018		2.2	
12/19/2018	0.0045 (J)		<0.04
12/20/2018			
3/19/2019	<0.04		
3/20/2019		2.3	0.004 (J)
10/15/2019			
10/16/2019		2.3	0.0055 (J)
10/17/2019	<0.04		
12/3/2019	0.0063 (J)		
3/3/2020	0.0075 (J)		
3/5/2020		2.1	0.0076 (J)
9/15/2020			
9/16/2020	0.0066 (J)	2.2	0.0062 (J)
9/17/2020			



# Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 11/1/2020 11:16 AM View: PL's Pond E  
Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-17S	BRGWC-34S	BRGWC-37S
8/31/2016			
9/1/2016			
9/7/2016	26.3		
9/8/2016		97.3	
11/15/2016			
11/16/2016			
11/17/2016	31.8	97.6	
11/18/2016			
11/21/2016			
2/20/2017			
2/21/2017			
2/22/2017	33.5	106	
2/23/2017			3.26
4/17/2017			3.23
5/15/2017			2.97 (B-01)
6/12/2017			
6/13/2017			
6/14/2017		98	
6/15/2017	29		3.15
9/26/2017			
9/27/2017		95.8	
9/28/2017	34.1		3.26
2/13/2018			
2/15/2018	33.8	100	3.39
6/26/2018			
6/27/2018	34.1	90.1	
6/28/2018			3.1
12/18/2018		85.1	
12/19/2018	33.1		3.6
12/20/2018			
3/19/2019	31.6		
3/20/2019		82	3.3
10/15/2019			
10/16/2019		78.2	3.4
12/3/2019	37.7		
3/3/2020	29.7		
3/5/2020		89.6	3.7
9/15/2020			
9/16/2020	37.9	77.7	3.2
9/17/2020			





# Prediction Limit

Constituent: Chloride, Total (mg/L) Analysis Run 11/1/2020 11:16 AM View: PL's Pond E  
Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-17S	BRGWC-34S	BRGWC-37S
8/31/2016			
9/1/2016			
9/7/2016	3.7		
9/8/2016		7.2	
11/15/2016			
11/16/2016			
11/17/2016	4.05 (D)	7.8 (D)	
11/18/2016			
11/21/2016			
2/20/2017			
2/21/2017			
2/22/2017	3.6	7.1	
2/23/2017			2.1
4/17/2017			1.8
5/15/2017			1.8
6/12/2017			
6/13/2017			
6/14/2017		7.3	
6/15/2017	3.7		1.9
9/26/2017			
9/27/2017		7.6	
9/28/2017	4.1		1.9
2/13/2018			
2/15/2018	5.3	7.2	2.3
6/26/2018			
6/27/2018	4.2	7.1	
6/28/2018			2.1 (J-X)
12/18/2018		7.1	
12/19/2018	4.9 (J-X)		1.9 (J-X)
12/20/2018			
3/19/2019	5		
3/20/2019		6.9	2.3
10/15/2019			
10/16/2019		7.3	2.3
12/3/2019	4.8		
3/3/2020	3.8		
3/5/2020		6.4	1.8
9/15/2020			
9/16/2020	4.2	6.6	1.8
9/17/2020			

# Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 11/1/2020 11:16 AM View: PL's Pond E

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-2I (bg)	BRGWA-5S (bg)	BRGWA-5I (bg)	BRGWA-2S (bg)	BRGWA-6S (bg)	BRGWC-38S	BRGWC-36S	BRGWC-35S	BRGWC-17S
8/31/2016	0.11 (J)	0.19 (J)	0.07 (J)	0.05 (J)					
9/1/2016					0.06 (J)				
9/7/2016						0.66	0.18 (J)	0.34	0.22 (J)
9/8/2016									
11/15/2016		<0.3 (J)			<0.3 (J)				
11/16/2016	<0.3 (J)		<0.3 (J)	<0.3 (J)					
11/17/2016								<0.1 (D)	0.315 (D)
11/18/2016							<0.1 (D)		
11/21/2016						0.9 (D)			
2/20/2017		0.08 (J)	0.06 (J)		0.04 (J)				
2/21/2017	0.14 (J)			0.05 (J)					
2/22/2017								0.09 (J)	0.11 (J)
2/23/2017						0.75	0.07 (J)		
4/17/2017									
5/15/2017									
6/12/2017	0.16 (J)	0.07 (J)	0.008 (J)		0.06 (J)				
6/13/2017				0.04 (J)					
6/14/2017									
6/15/2017						0.77	0.01 (J)	0.03 (J)	0.05 (J)
9/26/2017	0.14 (J)	0.04 (J)	<0.1	<0.1	<0.1				
9/27/2017									
9/28/2017						0.8	<0.1	<0.1	0.05 (J)
2/13/2018	<0.1	<0.1	<0.1	<0.1	<0.1				
2/15/2018						0.82	<0.1	<0.1	<0.1
6/26/2018	0.085 (J)	0.072 (J)	0.045 (J)	0.048 (J)	0.041 (J)				
6/27/2018								0.22 (J)	0.093 (J)
6/28/2018						1.5 (J+X)	0.51 (J+X)		
12/18/2018	0.085 (J)	<0.1	<0.1	<0.1	<0.1				
12/19/2018							<0.1	0.11 (J)	0.16 (J)
12/20/2018						0.68			
3/19/2019	0.0655 (JD)	0.06 (J)	<0.1	0.037 (J)	0.03 (J)		<0.1		0.1 (J)
3/20/2019						0.95		0.088 (J)	
8/27/2019	<0.1	<0.1	<0.1	<0.1	<0.1				
8/28/2019							<0.1	0.056 (J)	0.085 (J)
8/29/2019						0.9			
10/15/2019	<0.1	0.045 (J)	<0.1	<0.1	<0.1				
10/16/2019						0.61		0.08 (J)	
12/3/2019							0.15 (J)		0.2 (J)
3/3/2020	0.066 (J)	0.057 (J)	<0.1	0.05 (J)	0.09 (J)				0.093 (J)
3/5/2020						0.92	<0.1	0.067 (J)	
8/18/2020	<0.1	<0.1	<0.1	<0.1	<0.1				
8/19/2020						0.95	0.051 (J)	0.06 (J)	0.1
9/15/2020	<0.1	0.051 (J)	<0.1	<0.1	<0.1				
9/16/2020							<0.1	0.062 (J)	0.1
9/17/2020						0.68			

# Prediction Limit

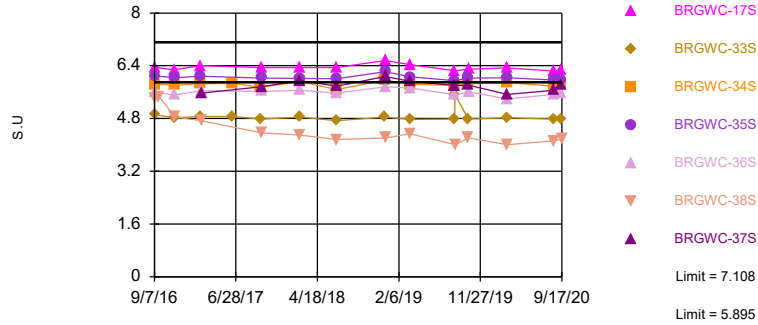
Constituent: Fluoride (mg/L) Analysis Run 11/1/2020 11:16 AM View: PL's Pond E

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-33S	BRGWC-34S	BRGWC-37S
8/31/2016			
9/1/2016			
9/7/2016	0.19 (J)		
9/8/2016		0.17 (J)	
11/15/2016			
11/16/2016			
11/17/2016	<0.1 (D)	<0.1 (D)	
11/18/2016			
11/21/2016			
2/20/2017			
2/21/2017			
2/22/2017	0.21 (J)	0.17 (J)	
2/23/2017			0.1 (J)
4/17/2017			0.08 (J)
5/15/2017			0.02 (J)
6/12/2017			
6/13/2017			
6/14/2017	0.18 (J)	0.1 (J)	
6/15/2017			0.03 (J)
9/26/2017			
9/27/2017	0.42	0.4	
9/28/2017			<0.1
2/13/2018			
2/15/2018	0.42	<0.1	<0.1
6/26/2018			
6/27/2018	0.32	0.21 (J)	
6/28/2018			<0.1
12/18/2018	0.28 (J)	0.12 (J)	
12/19/2018			0.094 (J)
12/20/2018			
3/19/2019			
3/20/2019	0.14 (J)	0.074 (J)	0.062 (J)
8/27/2019	0.11 (J)		
8/28/2019	0.11 (J)	0.057 (J)	<0.1
8/29/2019			
10/15/2019			
10/16/2019	0.17 (J)	0.13 (J)	0.059 (J)
12/3/2019			
3/3/2020			
3/5/2020	0.088 (J)	0.072 (J)	0.05 (J)
8/18/2020			
8/19/2020	0.11	0.074 (J)	0.055 (J)
9/15/2020			
9/16/2020	0.085 (J)	0.077 (J)	<0.1
9/17/2020			

Exceeds Limit: BRGWC-33S, BRGWC-34S, BRGWC-36S, BRGWC-38S, BRGWC-37S

Prediction Limit  
Interwell Parametric

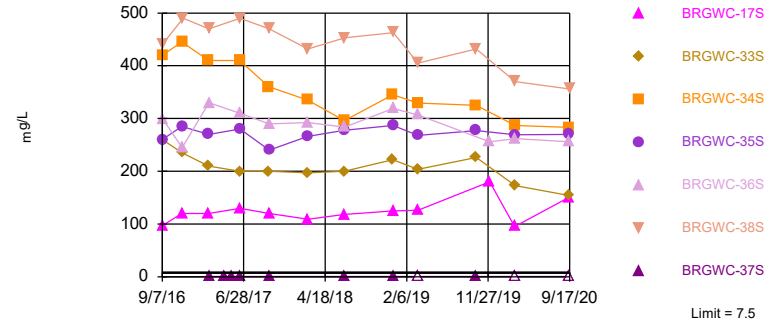


Background Data Summary: Mean=6.501, Std. Dev.=0.3176, n=69. Normality test: Shapiro Francia @alpha = 0.01, calculated = 0.9657, critical = 0.951. Kappa = 1.909 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.0005373. Comparing 7 points to limit.

Constituent: pH, Field Analysis Run 11/1/2020 11:14 AM View: PL's Pond E  
Plant Branch Client: Southern Company Data: Plant Branch AP

Exceeds Limit: BRGWC-17S, BRGWC-33S, BRGWC-34S, BRGWC-35S, BRGWC-36S, BRGWC-38S

Prediction Limit  
Interwell Non-parametric

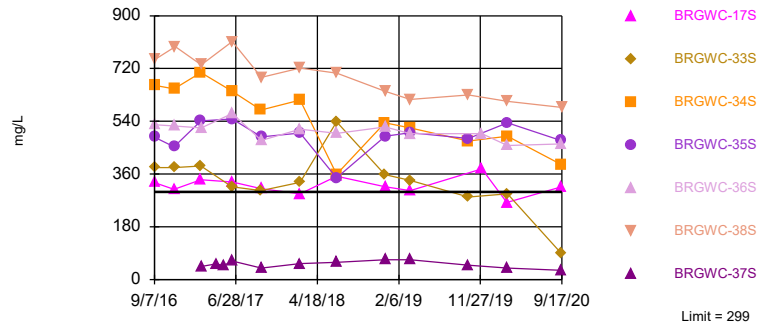


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 60 background values. 15% NDs. Annual per-constituent alpha = 0.007263. Individual comparison alpha = 0.0005205 (1 of 2). Comparing 7 points to limit.

Constituent: Sulfate as SO4 Analysis Run 11/1/2020 11:14 AM View: PL's Pond E  
Plant Branch Client: Southern Company Data: Plant Branch AP

Exceeds Limit: BRGWC-17S, BRGWC-34S, BRGWC-35S, BRGWC-36S, BRGWC-38S

Prediction Limit  
Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 60 background values. 3.333% NDs. Annual per-constituent alpha = 0.007263. Individual comparison alpha = 0.0005205 (1 of 2). Comparing 7 points to limit.

Constituent: Total Dissolved Solids [TDS] Analysis Run 11/1/2020 11:14 AM View: PL's Pond E  
Plant Branch Client: Southern Company Data: Plant Branch AP

# Prediction Limit

Constituent: pH, Field (S.U) Analysis Run 11/1/2020 11:16 AM View: PL's Pond E

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-2I (bg)	BRGWA-5I (bg)	BRGWA-5S (bg)	BRGWA-2S (bg)	BRGWA-6S (bg)	BRGWC-38S	BRGWC-36S	BRGWC-17S	BRGWC-35S
8/31/2016	7.16	6.53	6.59	6.2					
9/1/2016					6.49				
9/7/2016						5.43	5.59	6.36	6.1
9/8/2016									
9/23/2016						5.46			
11/15/2016			6.67		6.59				
11/16/2016	6.96	6.4		6.12					
11/17/2016								6.28	6.04
11/18/2016							5.51		
11/21/2016						4.84			
2/20/2017		6.44	6.65		6.61				
2/21/2017	7.15			6.24					
2/22/2017								6.4	6.08
2/23/2017						4.73	5.65		
6/12/2017	7.31	6.4	6.64						
6/13/2017				6.19					
6/14/2017									
9/26/2017	7.02	6.31	6.58	6.15	6.47				
9/27/2017									
9/28/2017						4.37	5.62	6.35	6.03
2/13/2018	7.44	6.62	6.72	6.18	6.54				
2/15/2018						4.3	5.66	6.35	6.02
6/26/2018	6.93	6.29	6.43	6.05	6.23				
6/27/2018								6.35	6.01
6/28/2018						4.16	5.57		
12/18/2018	6.76	6.57	6.7	5.92	6.71				
12/19/2018							5.76	6.56	6.22
12/20/2018						4.21			
3/19/2019	6.87	6.45	6.63	6.18	6.18		5.72	6.43	
3/20/2019						4.34			6.06
8/27/2019	6.79	6.37	6.49	6.09	6.35				
8/28/2019							5.52	6.25	5.95
8/29/2019						4.01			
10/15/2019	6.57	6.77	7.01	6.06	6.36				
10/16/2019						4.21			6.03
10/17/2019							5.61	6.3	
3/3/2020	6.71	6.29	6.49	6.1	6.59			6.34	
3/5/2020						4.01	5.39		6.04
8/18/2020	6.59	6.29	6.41	6.06	6.33				
8/19/2020						4.12	5.53	6.24	5.97
9/15/2020	6.64	6.27	6.25	6.01	6.43				
9/16/2020							5.58	6.26	5.96
9/17/2020						4.17			

# Prediction Limit

Constituent: pH, Field (S.U) Analysis Run 11/1/2020 11:16 AM View: PL's Pond E

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-33S	BRGWC-34S	BRGWC-37S
8/31/2016			
9/1/2016			
9/7/2016	4.92		
9/8/2016		5.84	
9/23/2016			
11/15/2016			
11/16/2016			
11/17/2016	4.82	5.81	
11/18/2016			
11/21/2016			
2/20/2017			
2/21/2017			
2/22/2017	4.86	5.85	
2/23/2017			5.57
6/12/2017			
6/13/2017			
6/14/2017	4.86	5.87	
9/26/2017			
9/27/2017	4.78	5.74	
9/28/2017			5.76
2/13/2018			
2/15/2018	4.84	5.93	5.95
6/26/2018			
6/27/2018	4.73	5.68	
6/28/2018			5.78
12/18/2018	4.84	5.97	
12/19/2018			6.07
12/20/2018			
3/19/2019			
3/20/2019	4.77	5.84	5.93
8/27/2019	4.78		
8/28/2019	5.52	5.8	5.8
8/29/2019			
10/15/2019			
10/16/2019	4.78	5.85	5.81
10/17/2019			
3/3/2020			
3/5/2020	4.82	5.89	5.53
8/18/2020			
8/19/2020	4.78	5.78	5.66
9/15/2020			
9/16/2020	4.78	5.81	5.84
9/17/2020			

# Prediction Limit

Constituent: Sulfate as SO4 (mg/L) Analysis Run 11/1/2020 11:16 AM View: PL's Pond E

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWA-2I (bg)	BRGWA-5S (bg)	BRGWA-5I (bg)	BRGWA-2S (bg)	BRGWA-6S (bg)	BRGWC-17S	BRGWC-38S	BRGWC-35S	BRGWC-33S
8/31/2016	7.5	0.81 (J)	2.7	0.38 (J)					
9/1/2016					0.6 (J)				
9/7/2016						97	440	260	260
9/8/2016									
11/15/2016		<1 (J)			<1 (J)				
11/16/2016	6.6		3.4	<1 (J)					
11/17/2016						120 (D)		285 (D)	235 (D)
11/18/2016									
11/21/2016							490 (D)		
2/20/2017		1 (B-01)	3.9 (B-01)		0.98 (J)				
2/21/2017	6.1			1.5					
2/22/2017						120		270	210
2/23/2017							470		
4/17/2017									
5/15/2017									
6/12/2017	5	0.94 (J)	3.7		0.54 (J)				
6/13/2017				0.67 (J)					
6/14/2017									200
6/15/2017						130	490	280	
9/26/2017	5.4	0.92 (J)	4.1	0.62 (J)	0.53 (J)				
9/27/2017									200
9/28/2017						120	470	240	
2/13/2018	4.7 (J)	<1	6.6	<1	<1				
2/15/2018						109	432	266	197
6/26/2018	6.2	0.91 (J)	3.5	0.69 (J)	0.54 (J)				
6/27/2018						118		278	200
6/28/2018							453		
12/18/2018	5.9	0.68 (J)	4.3	0.72 (J)	0.39 (J)				222
12/19/2018						125		287	
12/20/2018							463		
3/19/2019	6 (D)	0.74 (J)	3	0.78 (J)	0.68 (J)	126			
3/20/2019							405	268	204
10/15/2019	5.2	0.68 (J)	3.8	0.47 (J)	0.48 (J)				
10/16/2019							432	277	226
12/3/2019						180			
3/3/2020	7.1	0.71 (J)	2.8	0.93 (J)	2.5	95.4			
3/5/2020							370	269	173
9/15/2020	5.9	<1	1.7	<1	<1				
9/16/2020						151		270	154
9/17/2020							356		



# Prediction Limit

Constituent: Sulfate as SO4 (mg/L) Analysis Run 11/1/2020 11:16 AM View: PL's Pond E

Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-36S	BRGWC-34S	BRGWC-37S
8/31/2016			
9/1/2016			
9/7/2016	300		
9/8/2016		420	
11/15/2016			
11/16/2016			
11/17/2016		445 (D)	
11/18/2016	245 (D)		
11/21/2016			
2/20/2017			
2/21/2017			
2/22/2017		410	
2/23/2017	330		0.55 (J)
4/17/2017			0.44 (J)
5/15/2017			0.45 (J)
6/12/2017			
6/13/2017			
6/14/2017		410	
6/15/2017	310		0.46 (J)
9/26/2017			
9/27/2017		360	
9/28/2017	290		0.49 (J)
2/13/2018			
2/15/2018	292	335	1.9 (J,o)
6/26/2018			
6/27/2018		296	
6/28/2018	284		0.24 (J)
12/18/2018		345	
12/19/2018	319		0.4 (J)
12/20/2018			
3/19/2019	307		
3/20/2019		329	<1 (X)
10/15/2019			
10/16/2019		325	0.29 (J)
12/3/2019	256		
3/3/2020			
3/5/2020	262	287	<1
9/15/2020			
9/16/2020	256	283	<1
9/17/2020			



# Prediction Limit

Constituent: Total Dissolved Solids [TDS] (mg/L) Analysis Run 11/1/2020 11:16 AM View: PL's Pond E  
Plant Branch Client: Southern Company Data: Plant Branch AP

	BRGWC-17S	BRGWC-34S	BRGWC-37S
8/31/2016			
9/1/2016			
9/7/2016	331		
9/8/2016		663	
11/15/2016			
11/16/2016			
11/17/2016	308	651	
11/18/2016			
11/21/2016			
2/20/2017			
2/21/2017			
2/22/2017	341	706	
2/23/2017			45
4/17/2017			53
5/15/2017			48
6/12/2017			
6/13/2017			
6/14/2017		643	
6/15/2017	333		63
9/26/2017			
9/27/2017		579	
9/28/2017	310		39
2/13/2018			
2/15/2018	292	612	54
6/26/2018			
6/27/2018	353 (X)	359 (X)	
6/28/2018			59 (X)
12/18/2018		535	
12/19/2018	317		68
12/20/2018			
3/19/2019	303		
3/20/2019		517	68 (X)
10/15/2019			
10/16/2019		473	49
12/3/2019	378		
3/3/2020	263		
3/5/2020		489	39
9/15/2020			
9/16/2020	316	392	31
9/17/2020			

FIGURE E.

# Trend Test Summary - Significant Results

Plant Branch Client: Southern Company Data: Plant Branch AP Printed 11/1/2020, 11:24 AM

<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Normality</u>	<u>Xform</u>	<u>Alpha</u>	<u>Method</u>
Boron (mg/L)	BRGWC-35S	0.2452	52	38	Yes	12	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWC-34S	-6.103	-42	-38	Yes	12	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWC-38S	-2.362	-40	-38	Yes	12	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BRGWC-36S	1.313	52	38	Yes	12	0	n/a	n/a	0.01	NP
pH, Field (S.U)	BRGWA-2I (bg)	-0.1422	-59	-48	Yes	14	0	n/a	n/a	0.01	NP
pH, Field (S.U)	BRGWC-38S	-0.215	-63	-48	Yes	14	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	BRGWC-34S	-38.53	-55	-38	Yes	12	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	BRGWC-38S	-25.44	-41	-38	Yes	12	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	BRGWC-34S	-67.45	-48	-38	Yes	12	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	BRGWC-36S	-15.74	-41	-38	Yes	12	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	BRGWC-38S	-51.51	-52	-38	Yes	12	0	n/a	n/a	0.01	NP

# Trend Test Summary - All Results

Plant Branch    Client: Southern Company    Data: Plant Branch AP    Printed 11/1/2020, 11:24 AM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	BRGWA-2I (bg)	-0.0003913	-9	-38	No	12	16.67	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWA-2S (bg)	0	0	38	No	12	100	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWA-5I (bg)	0	5	38	No	12	83.33	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWA-5S (bg)	0	-6	-38	No	12	66.67	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWA-6S (bg)	0	-2	-38	No	12	75	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWC-33S	0.01641	7	38	No	12	0	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWC-34S	0.01111	8	38	No	12	0	n/a	n/a	0.01	NP
<b>Boron (mg/L)</b>	<b>BRGWC-35S</b>	<b>0.2452</b>	<b>52</b>	<b>38</b>	<b>Yes</b>	<b>12</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Boron (mg/L)	BRGWC-36S	0.05331	34	43	No	13	0	n/a	n/a	0.01	NP
Boron (mg/L)	BRGWC-38S	-0.08681	-27	-38	No	12	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWA-2I (bg)	1.137	29	38	No	12	8.333	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWA-2S (bg)	-0.05889	-17	-38	No	12	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWA-5I (bg)	-0.08584	-3	-38	No	12	8.333	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWA-5S (bg)	-0.153	-4	-38	No	12	8.333	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWA-6S (bg)	0.1455	32	38	No	12	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWC-17S	1.454	23	38	No	12	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWC-33S	-1.126	-16	-38	No	12	0	n/a	n/a	0.01	NP
<b>Calcium (mg/L)</b>	<b>BRGWC-34S</b>	<b>-6.103</b>	<b>-42</b>	<b>-38</b>	<b>Yes</b>	<b>12</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Calcium (mg/L)	BRGWC-35S	0.7703	13	38	No	12	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BRGWC-36S	-1.111	-23	-38	No	12	0	n/a	n/a	0.01	NP
<b>Calcium (mg/L)</b>	<b>BRGWC-38S</b>	<b>-2.362</b>	<b>-40</b>	<b>-38</b>	<b>Yes</b>	<b>12</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Chloride, Total (mg/L)	BRGWA-2I (bg)	-0.02706	-7	-38	No	12	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BRGWA-2S (bg)	0	0	38	No	12	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BRGWA-5I (bg)	-0.1482	-21	-38	No	12	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BRGWA-5S (bg)	-0.01532	-6	-38	No	12	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BRGWA-6S (bg)	0.01532	12	38	No	12	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BRGWC-34S	-0.2166	-33	-38	No	12	0	n/a	n/a	0.01	NP
Chloride, Total (mg/L)	BRGWC-35S	0.08852	21	38	No	12	0	n/a	n/a	0.01	NP
<b>Chloride, Total (mg/L)</b>	<b>BRGWC-36S</b>	<b>1.313</b>	<b>52</b>	<b>38</b>	<b>Yes</b>	<b>12</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Chloride, Total (mg/L)	BRGWC-38S	0.2779	14	38	No	12	0	n/a	n/a	0.01	NP
Fluoride (mg/L)	BRGWA-2I (bg)	-0.01511	-39	-48	No	14	42.86	n/a	n/a	0.01	NP
Fluoride (mg/L)	BRGWA-2S (bg)	0	7	48	No	14	57.14	n/a	n/a	0.01	NP
Fluoride (mg/L)	BRGWA-5I (bg)	0	17	48	No	14	71.43	n/a	n/a	0.01	NP
Fluoride (mg/L)	BRGWA-5S (bg)	-0.01067	-29	-48	No	14	35.71	n/a	n/a	0.01	NP
Fluoride (mg/L)	BRGWA-6S (bg)	0	11	48	No	14	57.14	n/a	n/a	0.01	NP
Fluoride (mg/L)	BRGWC-38S	0.04873	16	48	No	14	0	n/a	n/a	0.01	NP
<b>pH, Field (S.U)</b>	<b>BRGWA-2I (bg)</b>	<b>-0.1422</b>	<b>-59</b>	<b>-48</b>	<b>Yes</b>	<b>14</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
pH, Field (S.U)	BRGWA-2S (bg)	-0.04353	-47	-48	No	14	0	n/a	n/a	0.01	NP
pH, Field (S.U)	BRGWA-5I (bg)	-0.03452	-29	-48	No	14	0	n/a	n/a	0.01	NP
pH, Field (S.U)	BRGWA-5S (bg)	-0.05503	-32	-48	No	14	0	n/a	n/a	0.01	NP
pH, Field (S.U)	BRGWA-6S (bg)	-0.04101	-17	-43	No	13	0	n/a	n/a	0.01	NP
pH, Field (S.U)	BRGWC-33S	-0.01441	-30	-53	No	15	0	n/a	n/a	0.01	NP
pH, Field (S.U)	BRGWC-34S	0	-2	-48	No	14	0	n/a	n/a	0.01	NP
pH, Field (S.U)	BRGWC-36S	-0.01515	-10	-43	No	13	0	n/a	n/a	0.01	NP
<b>pH, Field (S.U)</b>	<b>BRGWC-38S</b>	<b>-0.215</b>	<b>-63</b>	<b>-48</b>	<b>Yes</b>	<b>14</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
pH, Field (S.U)	BRGWC-37S	0.01714	1	34	No	11	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	BRGWA-2I (bg)	-0.1119	-11	-38	No	12	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	BRGWA-2S (bg)	0.04767	13	38	No	12	25	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	BRGWA-5I (bg)	-0.1873	-8	-38	No	12	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	BRGWA-5S (bg)	-0.07276	-22	-38	No	12	25	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	BRGWA-6S (bg)	-0.01104	-8	-38	No	12	25	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	BRGWC-17S	7.267	19	38	No	12	0	n/a	n/a	0.01	NP
Sulfate as SO4 (mg/L)	BRGWC-33S	-13.69	-29	-38	No	12	0	n/a	n/a	0.01	NP
<b>Sulfate as SO4 (mg/L)</b>	<b>BRGWC-34S</b>	<b>-38.53</b>	<b>-55</b>	<b>-38</b>	<b>Yes</b>	<b>12</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Sulfate as SO4 (mg/L)	BRGWC-35S	0.9989	3	38	No	12	0	n/a	n/a	0.01	NP

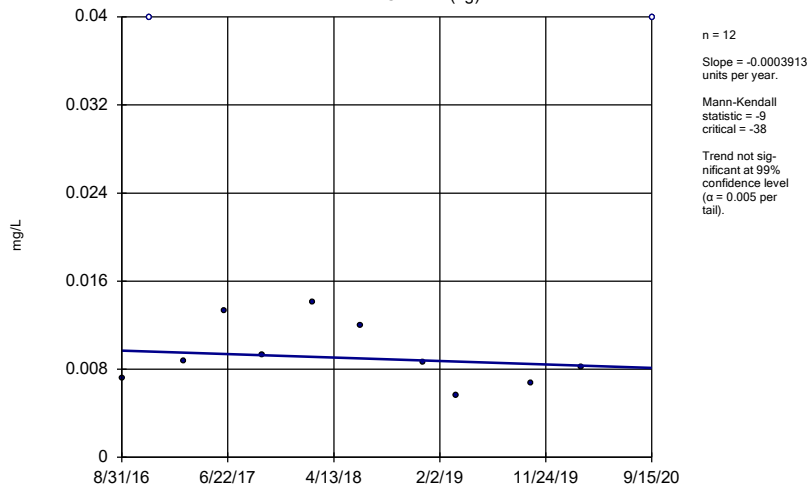
# Trend Test Summary - All Results

Plant Branch    Client: Southern Company    Data: Plant Branch AP    Printed 11/1/2020, 11:24 AM

<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Normality</u>	<u>Xform</u>	<u>Alpha</u>	<u>Method</u>
Sulfate as SO4 (mg/L)	BRGWC-36S	-11.18	-19	-38	No	12	0	n/a	n/a	0.01	NP
<b>Sulfate as SO4 (mg/L)</b>	<b>BRGWC-38S</b>	<b>-25.44</b>	<b>-41</b>	<b>-38</b>	<b>Yes</b>	<b>12</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Total Dissolved Solids [TDS] (mg/L)	BRGWA-2I (bg)	-1.984	-2	-38	No	12	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	BRGWA-2S (bg)	4.612	11	38	No	12	8.333	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	BRGWA-5I (bg)	-3.347	-9	-38	No	12	8.333	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	BRGWA-5S (bg)	-3.649	-23	-38	No	12	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	BRGWA-6S (bg)	0.4269	1	38	No	12	0	n/a	n/a	0.01	NP
Total Dissolved Solids [TDS] (mg/L)	BRGWC-17S	-4.988	-8	-38	No	12	0	n/a	n/a	0.01	NP
<b>Total Dissolved Solids [TDS] (mg/L)</b>	<b>BRGWC-34S</b>	<b>-67.45</b>	<b>-48</b>	<b>-38</b>	<b>Yes</b>	<b>12</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Total Dissolved Solids [TDS] (mg/L)	BRGWC-35S	-1.794	-2	-38	No	12	0	n/a	n/a	0.01	NP
<b>Total Dissolved Solids [TDS] (mg/L)</b>	<b>BRGWC-36S</b>	<b>-15.74</b>	<b>-41</b>	<b>-38</b>	<b>Yes</b>	<b>12</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Total Dissolved Solids [TDS] (mg/L)</b>	<b>BRGWC-38S</b>	<b>-51.51</b>	<b>-52</b>	<b>-38</b>	<b>Yes</b>	<b>12</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>

Sen's Slope Estimator

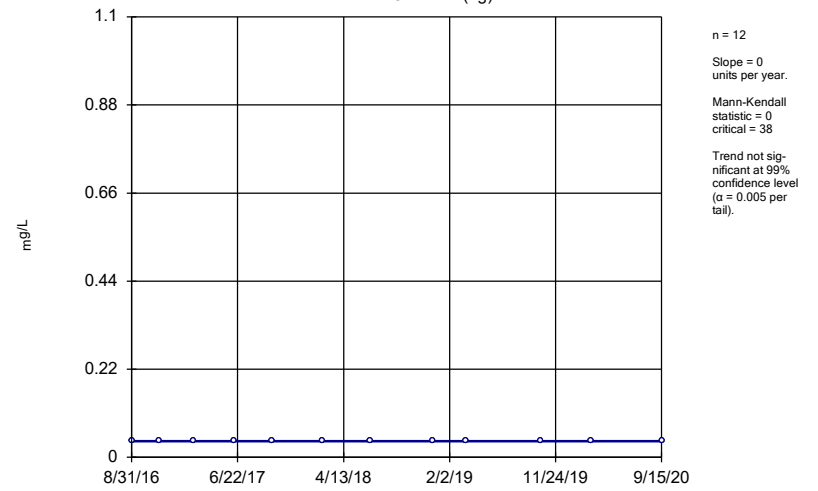
BRGWA-2I (bg)



Constituent: Boron Analysis Run 11/1/2020 11:20 AM View: Trend Tests Pond E  
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

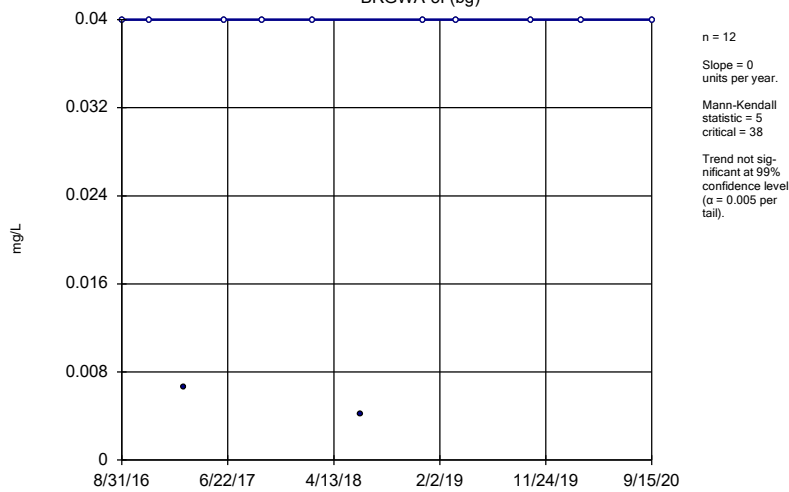
BRGWA-2S (bg)



Constituent: Boron Analysis Run 11/1/2020 11:20 AM View: Trend Tests Pond E  
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

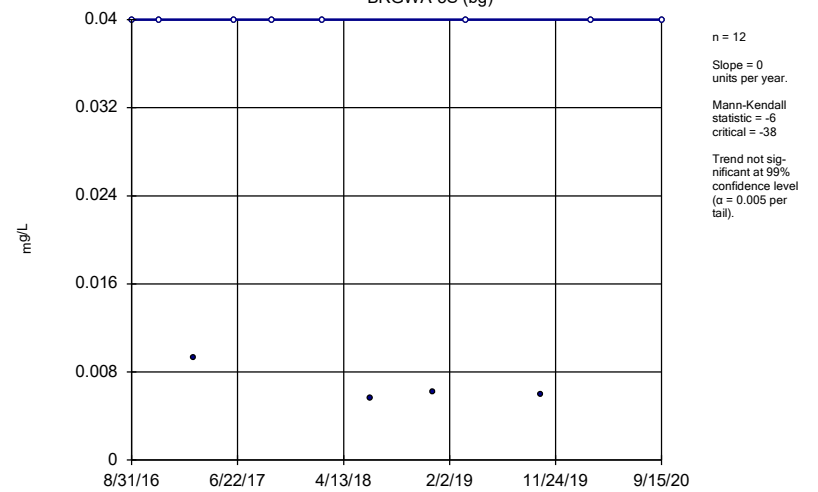
BRGWA-5I (bg)



Constituent: Boron Analysis Run 11/1/2020 11:20 AM View: Trend Tests Pond E  
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator

BRGWA-5S (bg)

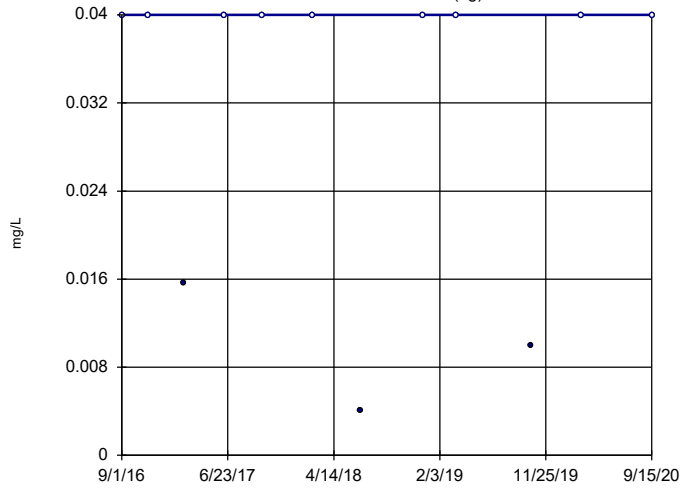


Constituent: Boron Analysis Run 11/1/2020 11:20 AM View: Trend Tests Pond E  
 Plant Branch Client: Southern Company Data: Plant Branch AP



### Sen's Slope Estimator

BRGWA-6S (bg)

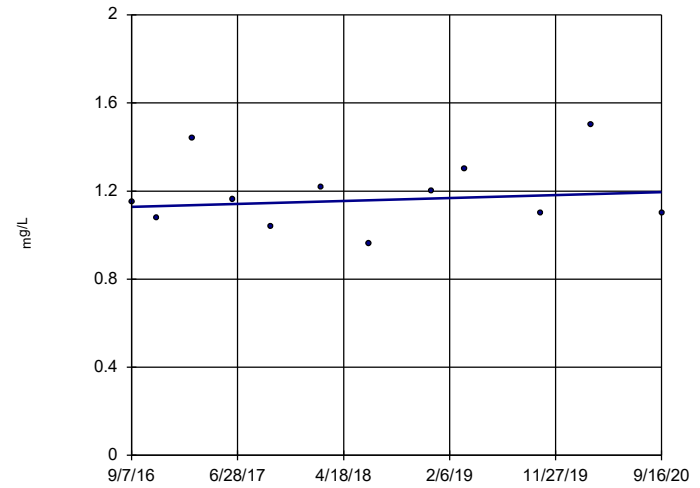


n = 12  
 Slope = 0  
 units per year.  
 Mann-Kendall  
 statistic = -2  
 critical = -38  
 Trend not sig-  
 nificant at 99%  
 confidence level  
 ( $\alpha = 0.005$  per  
 tail).

Constituent: Boron Analysis Run 11/1/2020 11:20 AM View: Trend Tests Pond E  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWC-33S

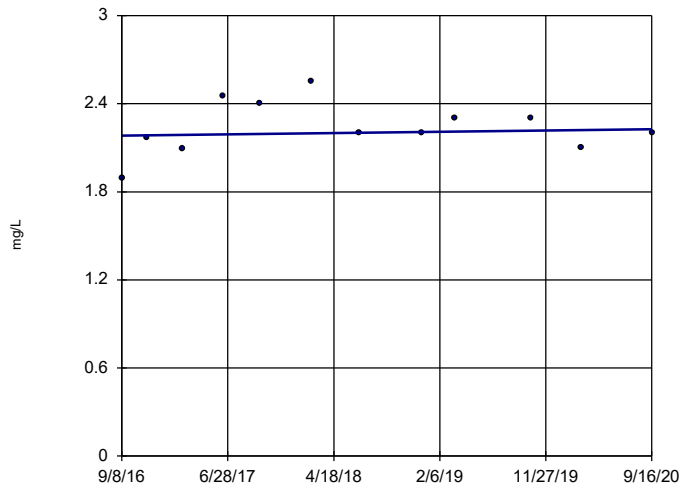


n = 12  
 Slope = 0.01641  
 units per year.  
 Mann-Kendall  
 statistic = 7  
 critical = 38  
 Trend not sig-  
 nificant at 99%  
 confidence level  
 ( $\alpha = 0.005$  per  
 tail).

Constituent: Boron Analysis Run 11/1/2020 11:20 AM View: Trend Tests Pond E  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWC-34S

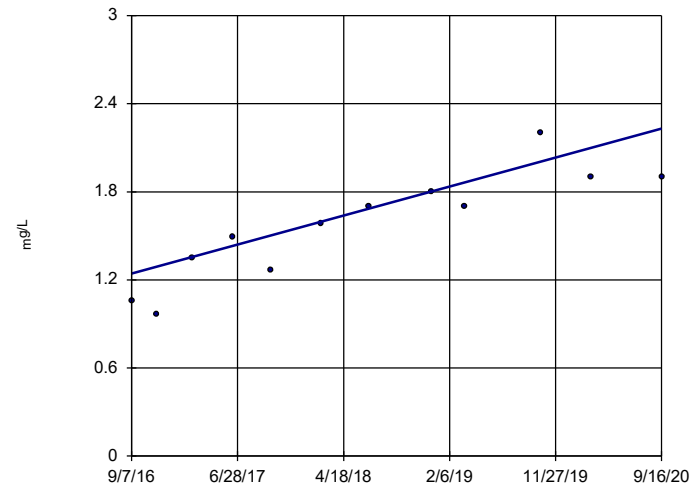


n = 12  
 Slope = 0.01111  
 units per year.  
 Mann-Kendall  
 statistic = 8  
 critical = 38  
 Trend not sig-  
 nificant at 99%  
 confidence level  
 ( $\alpha = 0.005$  per  
 tail).

Constituent: Boron Analysis Run 11/1/2020 11:20 AM View: Trend Tests Pond E  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

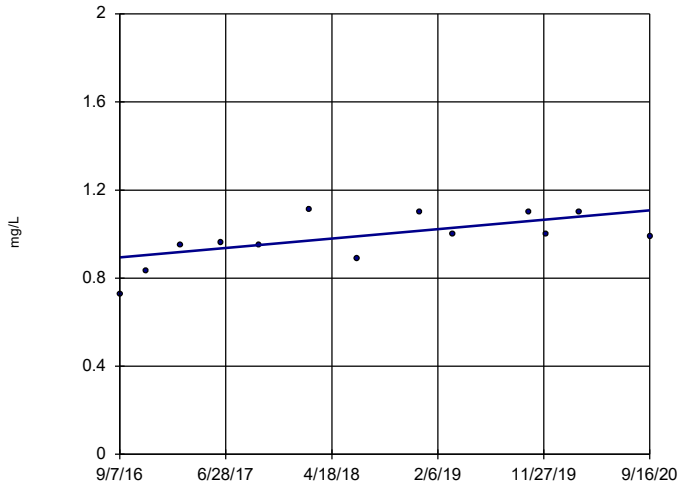
BRGWC-35S



n = 12  
 Slope = 0.2452  
 units per year.  
 Mann-Kendall  
 statistic = 52  
 critical = 38  
 Increasing trend  
 significant at 99%  
 confidence level  
 ( $\alpha = 0.005$  per  
 tail).

Constituent: Boron Analysis Run 11/1/2020 11:20 AM View: Trend Tests Pond E  
 Plant Branch Client: Southern Company Data: Plant Branch AP

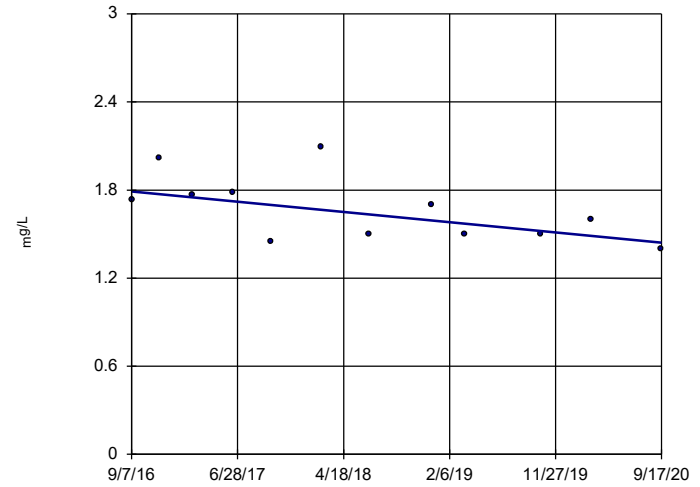
Sen's Slope Estimator  
BRGWC-36S



n = 13  
Slope = 0.05331 units per year.  
Mann-Kendall statistic = 34 critical = 43  
Trend not significant at 99% confidence level ( $\alpha = 0.005$  per tail).

Constituent: Boron Analysis Run 11/1/2020 11:20 AM View: Trend Tests Pond E  
Plant Branch Client: Southern Company Data: Plant Branch AP

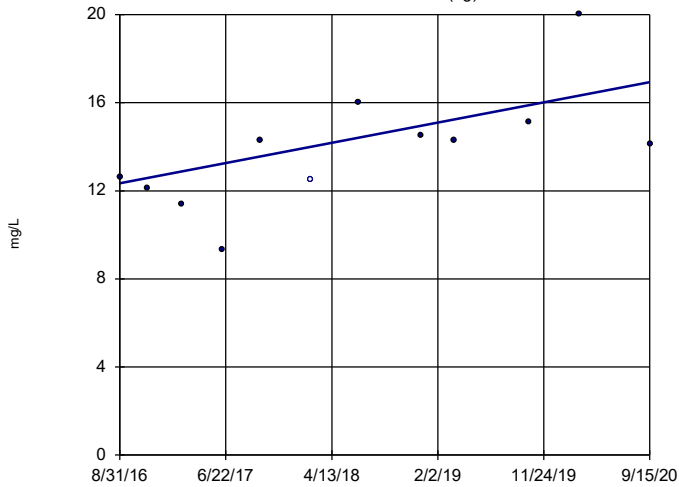
Sen's Slope Estimator  
BRGWC-38S



n = 12  
Slope = -0.08681 units per year.  
Mann-Kendall statistic = -27 critical = -38  
Trend not significant at 99% confidence level ( $\alpha = 0.005$  per tail).

Constituent: Boron Analysis Run 11/1/2020 11:20 AM View: Trend Tests Pond E  
Plant Branch Client: Southern Company Data: Plant Branch AP

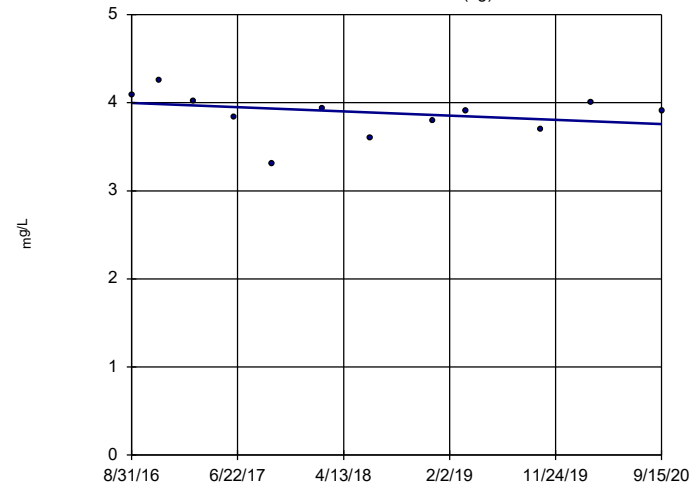
Sen's Slope Estimator  
BRGWA-2I (bg)



n = 12  
Slope = 1.137 units per year.  
Mann-Kendall statistic = 29 critical = 38  
Trend not significant at 99% confidence level ( $\alpha = 0.005$  per tail).

Constituent: Calcium Analysis Run 11/1/2020 11:21 AM View: Trend Tests Pond E  
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator  
BRGWA-2S (bg)

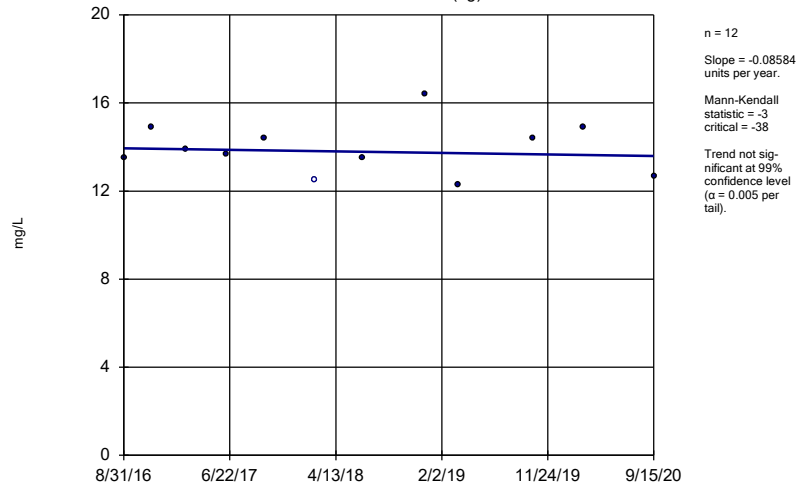


n = 12  
Slope = -0.05889 units per year.  
Mann-Kendall statistic = -17 critical = -38  
Trend not significant at 99% confidence level ( $\alpha = 0.005$  per tail).

Constituent: Calcium Analysis Run 11/1/2020 11:21 AM View: Trend Tests Pond E  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

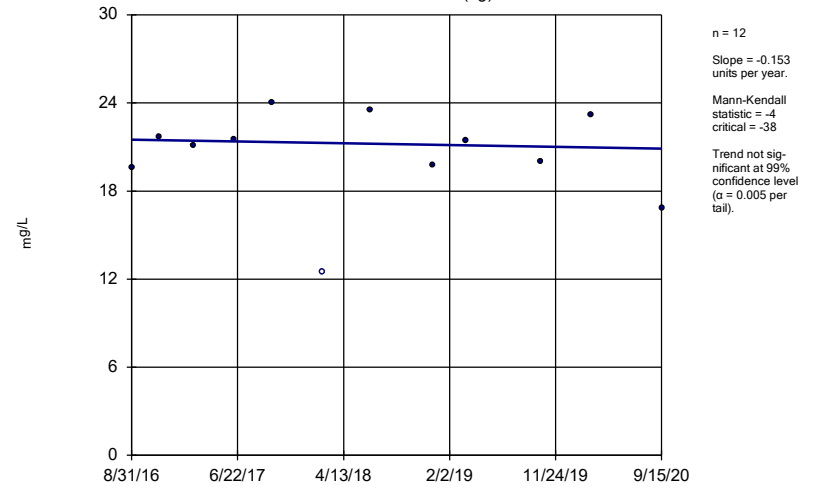
BRGWA-5I (bg)



Constituent: Calcium Analysis Run 11/1/2020 11:21 AM View: Trend Tests Pond E  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

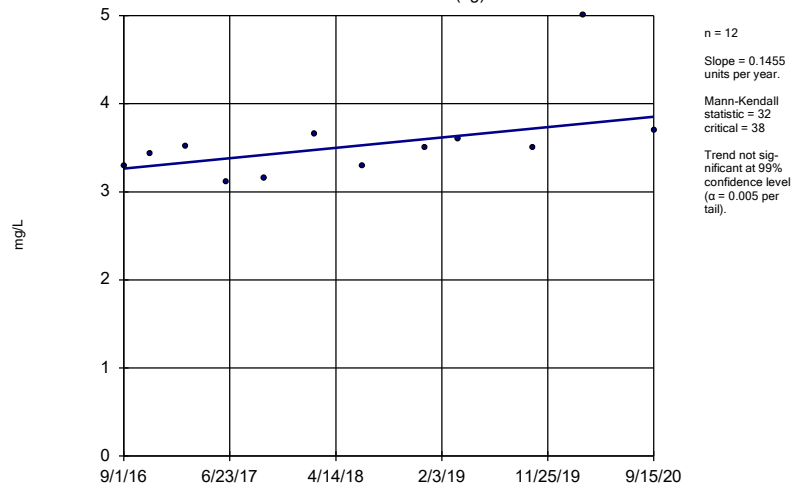
BRGWA-5S (bg)



Constituent: Calcium Analysis Run 11/1/2020 11:21 AM View: Trend Tests Pond E  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

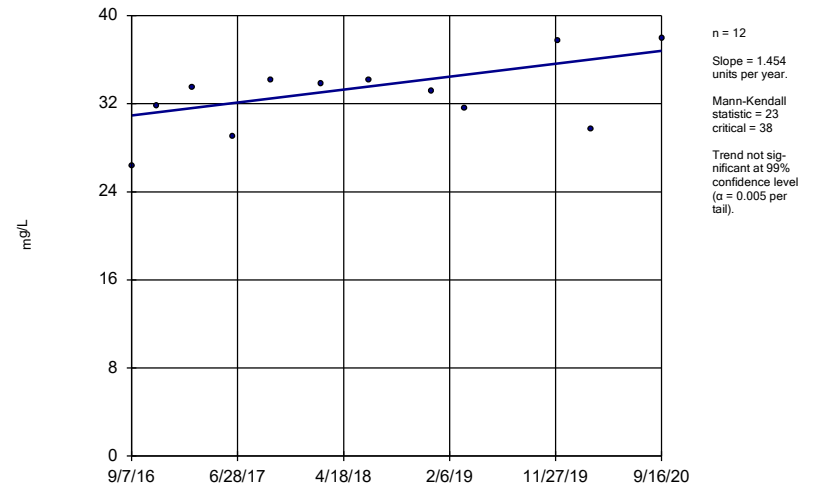
BRGWA-6S (bg)



Constituent: Calcium Analysis Run 11/1/2020 11:21 AM View: Trend Tests Pond E  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

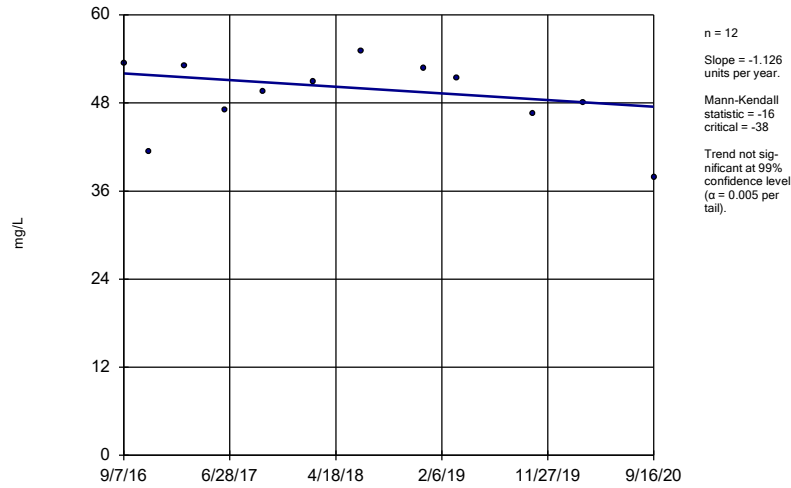
BRGWC-17S



Constituent: Calcium Analysis Run 11/1/2020 11:21 AM View: Trend Tests Pond E  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

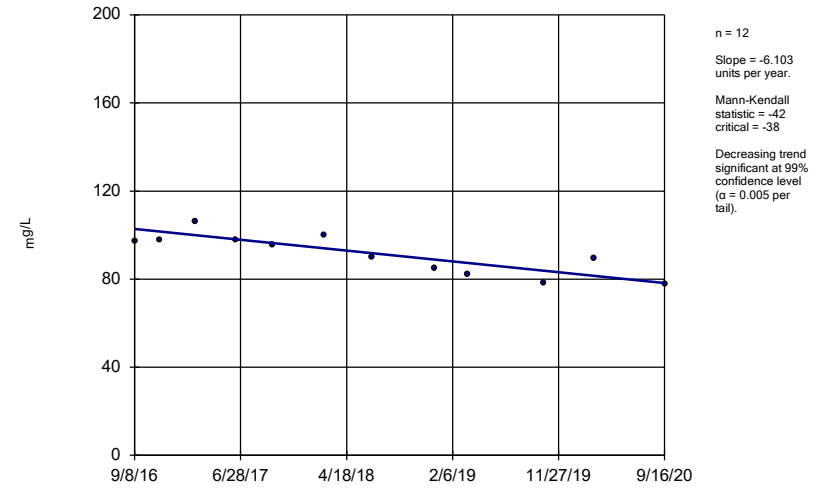
BRGWC-33S



Constituent: Calcium Analysis Run 11/1/2020 11:21 AM View: Trend Tests Pond E  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

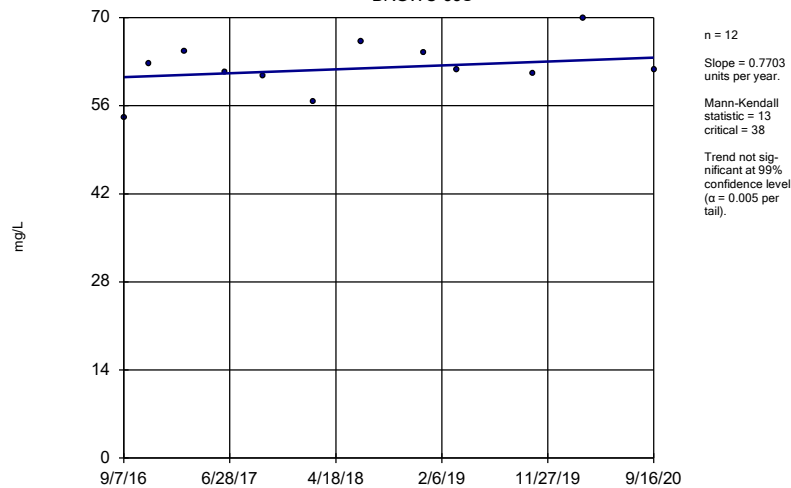
BRGWC-34S



Constituent: Calcium Analysis Run 11/1/2020 11:21 AM View: Trend Tests Pond E  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

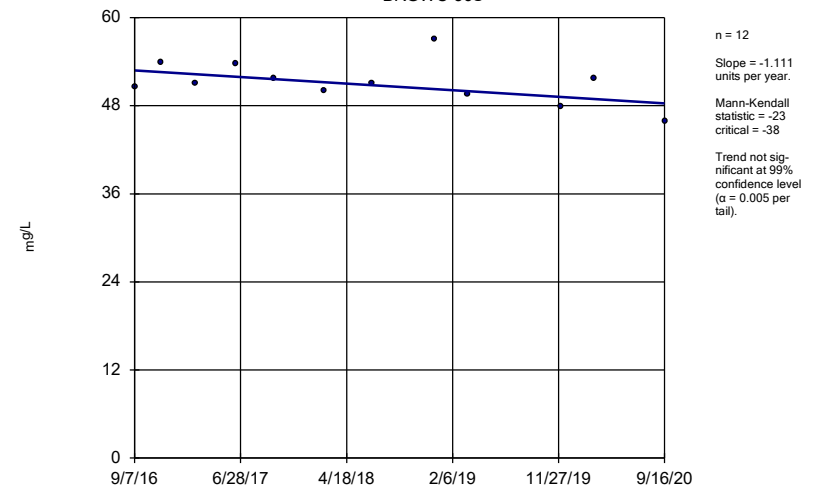
BRGWC-35S



Constituent: Calcium Analysis Run 11/1/2020 11:21 AM View: Trend Tests Pond E  
 Plant Branch Client: Southern Company Data: Plant Branch AP

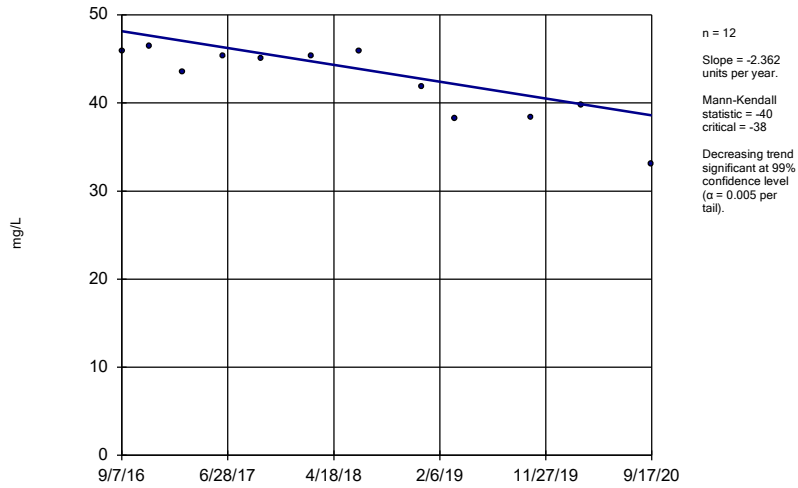
### Sen's Slope Estimator

BRGWC-36S



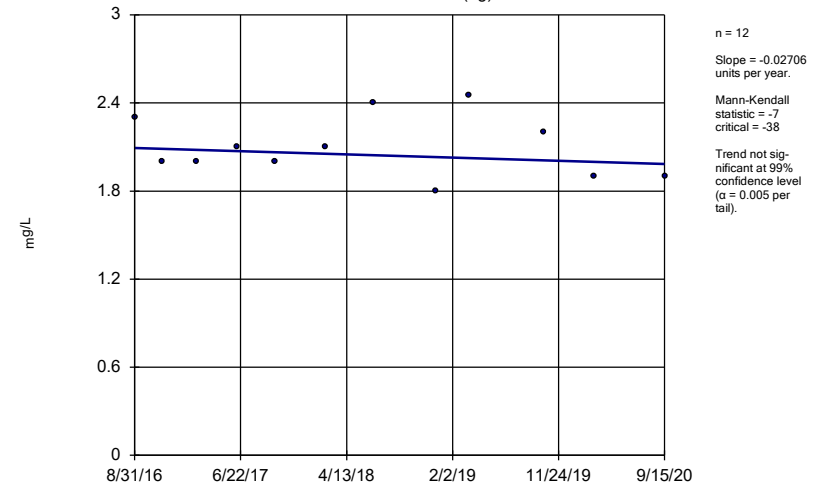
Constituent: Calcium Analysis Run 11/1/2020 11:21 AM View: Trend Tests Pond E  
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator  
BRGWC-38S



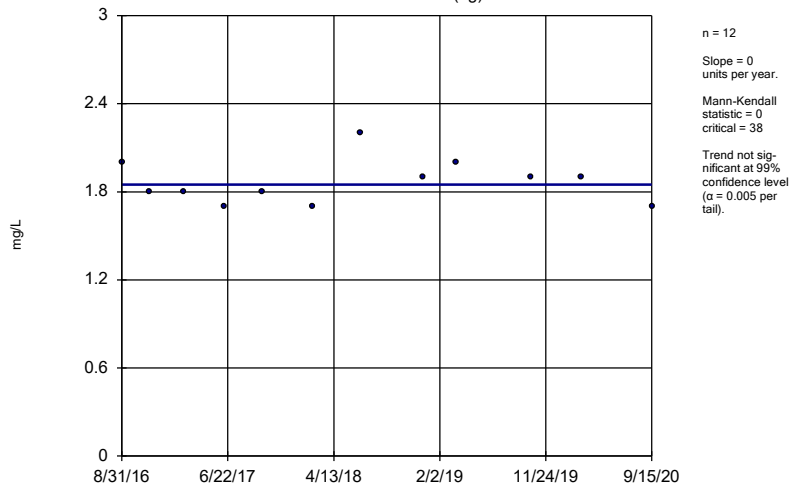
Constituent: Calcium Analysis Run 11/1/2020 11:21 AM View: Trend Tests Pond E  
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator  
BRGWA-2I (bg)



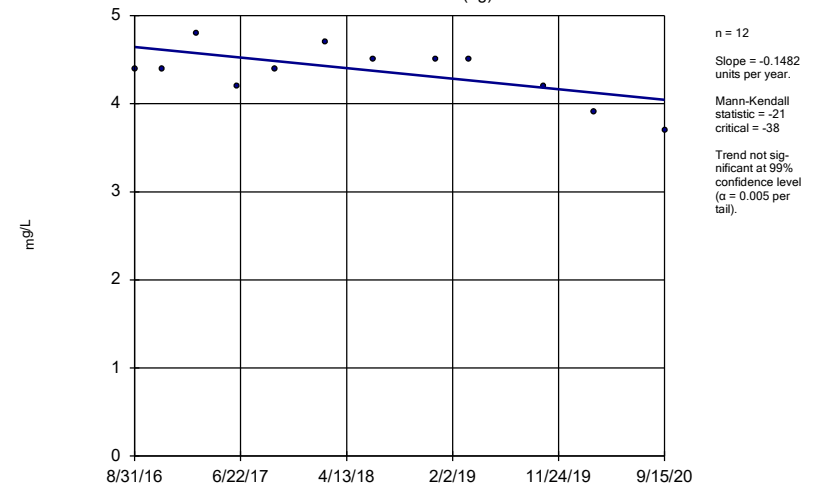
Constituent: Chloride, Total Analysis Run 11/1/2020 11:21 AM View: Trend Tests Pond E  
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator  
BRGWA-2S (bg)



Constituent: Chloride, Total Analysis Run 11/1/2020 11:21 AM View: Trend Tests Pond E  
Plant Branch Client: Southern Company Data: Plant Branch AP

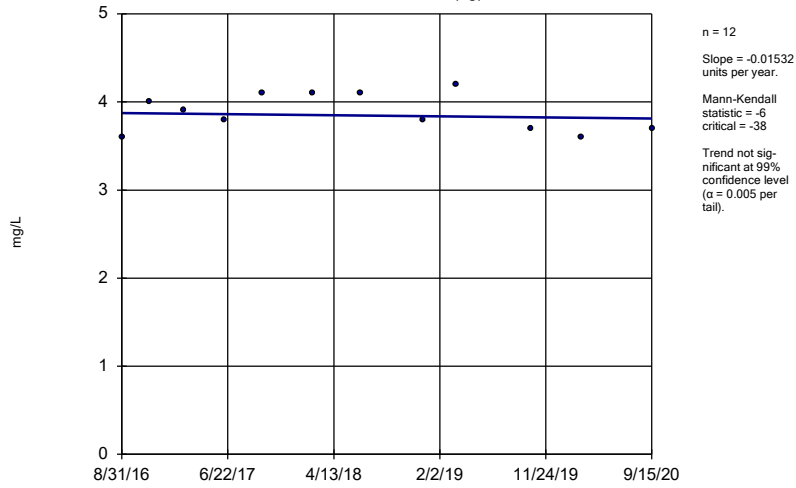
Sen's Slope Estimator  
BRGWA-5I (bg)



Constituent: Chloride, Total Analysis Run 11/1/2020 11:21 AM View: Trend Tests Pond E  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

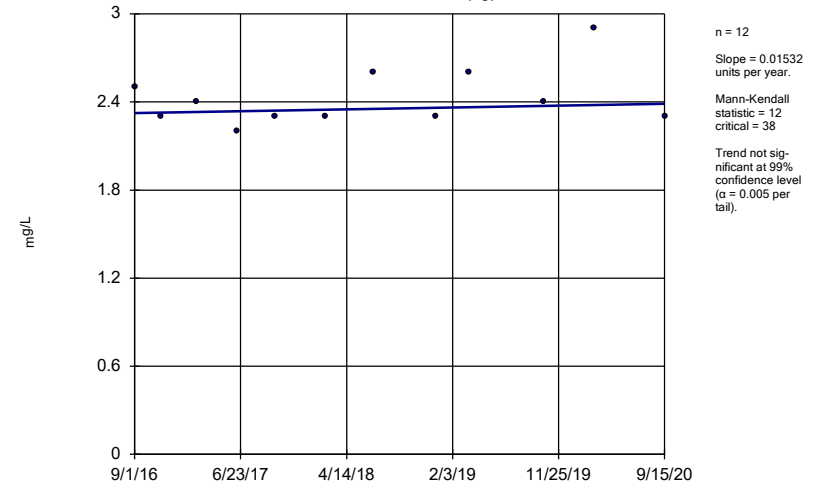
BRGWA-5S (bg)



Constituent: Chloride, Total Analysis Run 11/1/2020 11:21 AM View: Trend Tests Pond E  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

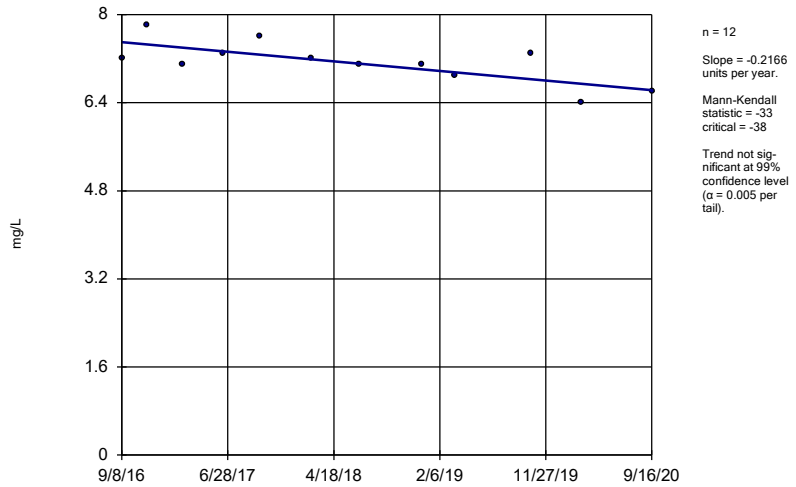
BRGWA-6S (bg)



Constituent: Chloride, Total Analysis Run 11/1/2020 11:21 AM View: Trend Tests Pond E  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

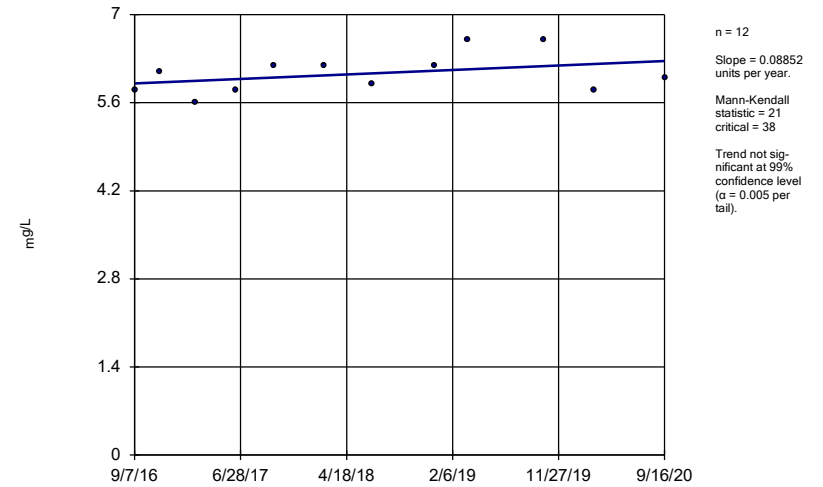
BRGWC-34S



Constituent: Chloride, Total Analysis Run 11/1/2020 11:21 AM View: Trend Tests Pond E  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

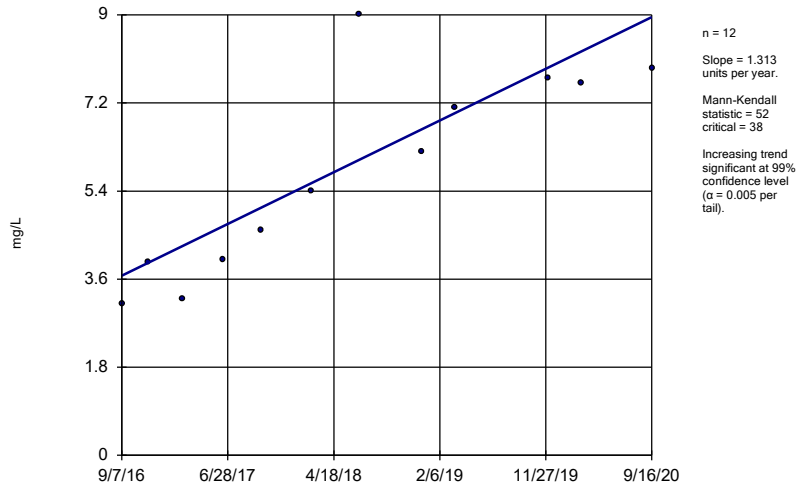
BRGWC-35S



Constituent: Chloride, Total Analysis Run 11/1/2020 11:21 AM View: Trend Tests Pond E  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

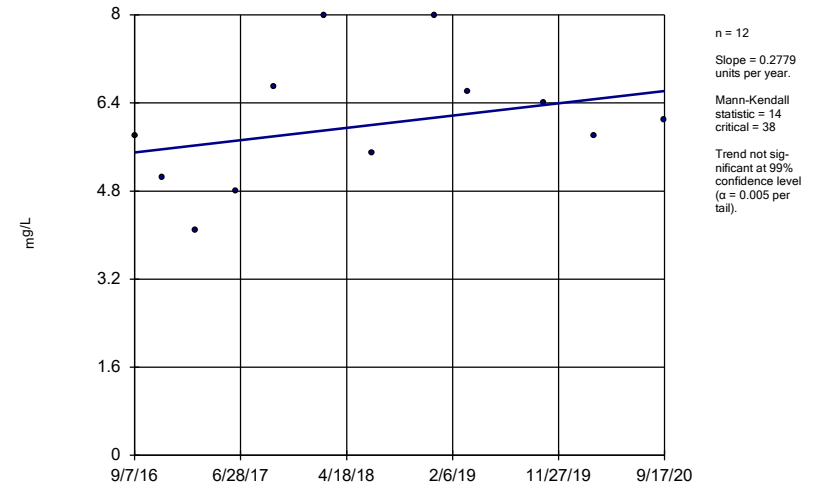
BRGWC-36S



Constituent: Chloride, Total Analysis Run 11/1/2020 11:21 AM View: Trend Tests Pond E  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

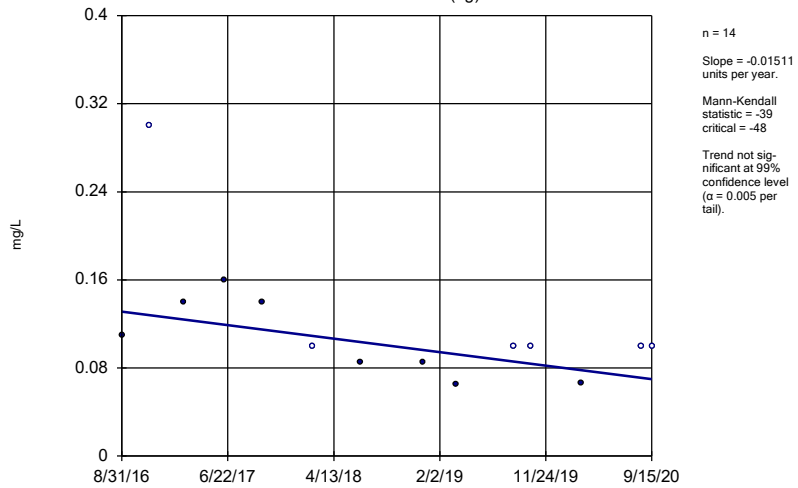
BRGWC-38S



Constituent: Chloride, Total Analysis Run 11/1/2020 11:21 AM View: Trend Tests Pond E  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

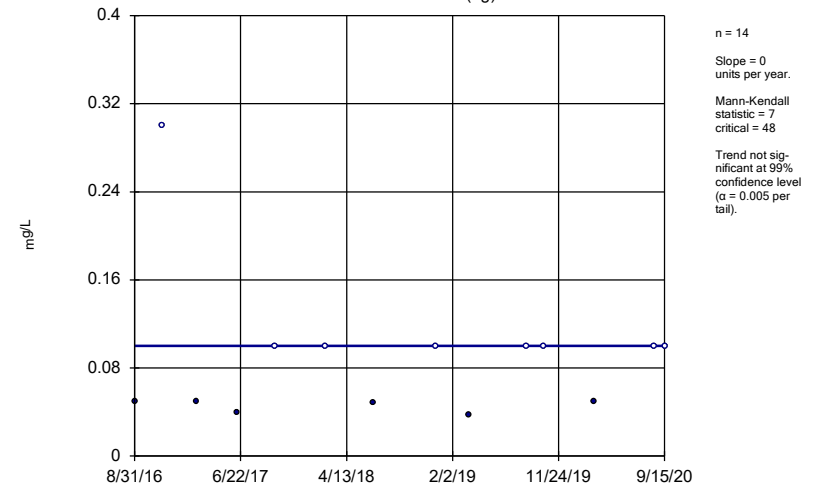
BRGWA-2I (bg)



Constituent: Fluoride Analysis Run 11/1/2020 11:21 AM View: Trend Tests Pond E  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

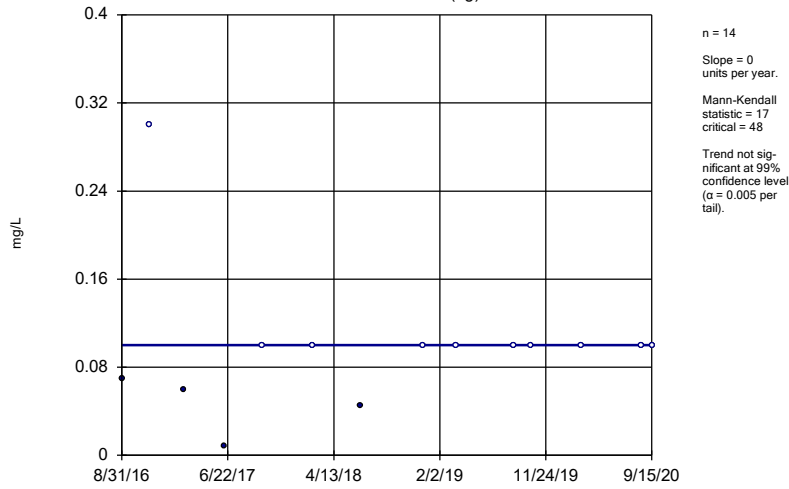
BRGWA-2S (bg)



Constituent: Fluoride Analysis Run 11/1/2020 11:21 AM View: Trend Tests Pond E  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

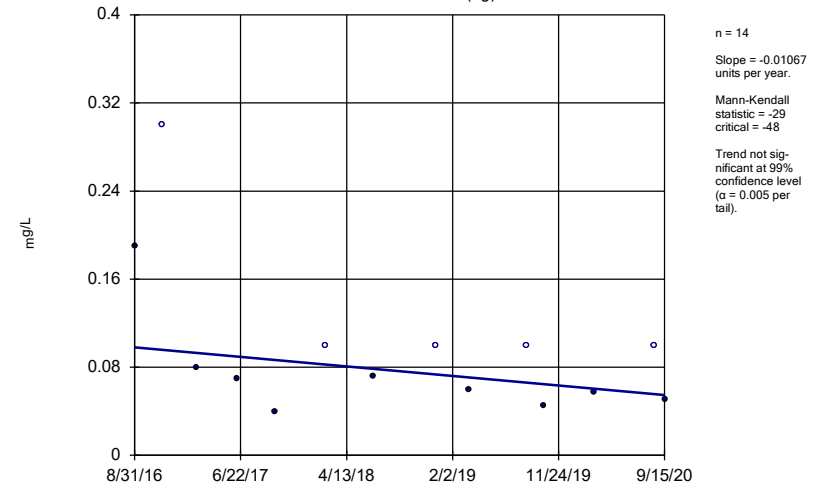
BRGWA-5I (bg)



Constituent: Fluoride Analysis Run 11/1/2020 11:21 AM View: Trend Tests Pond E  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

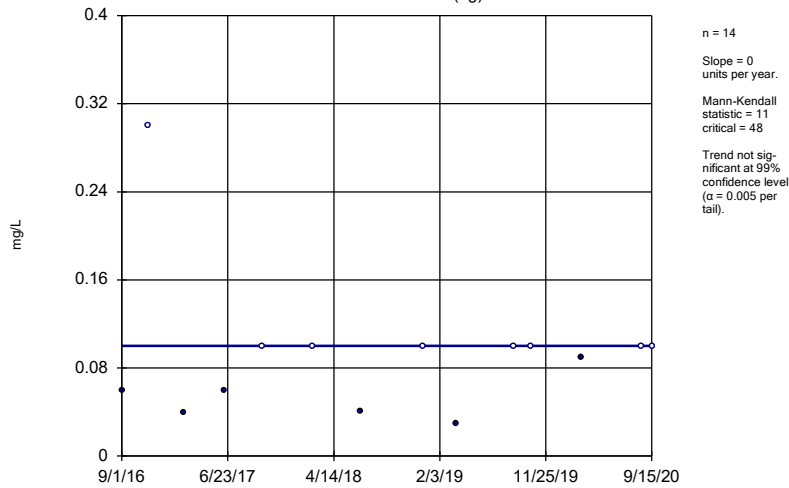
BRGWA-5S (bg)



Constituent: Fluoride Analysis Run 11/1/2020 11:21 AM View: Trend Tests Pond E  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

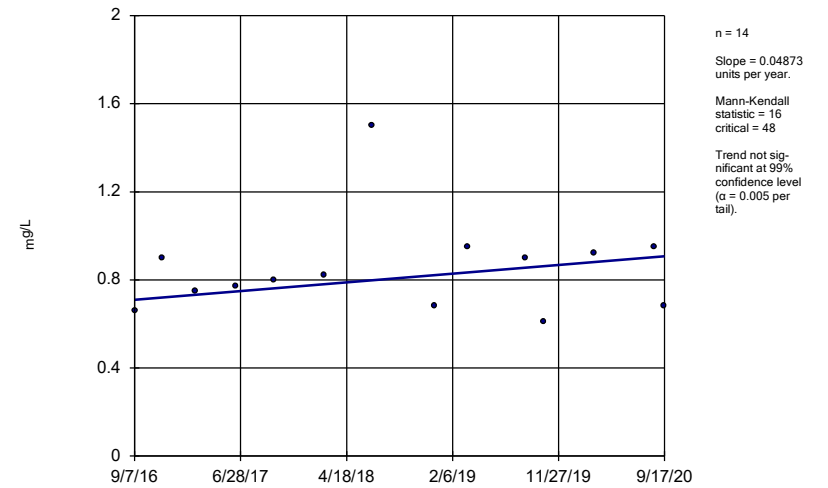
BRGWA-6S (bg)



Constituent: Fluoride Analysis Run 11/1/2020 11:21 AM View: Trend Tests Pond E  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWC-38S

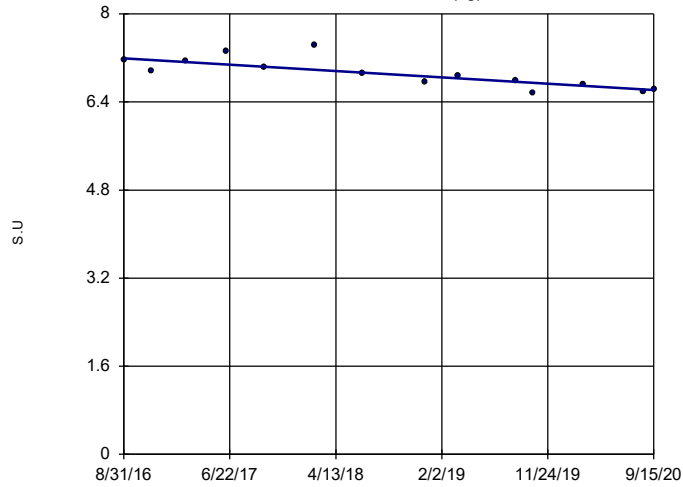


Constituent: Fluoride Analysis Run 11/1/2020 11:21 AM View: Trend Tests Pond E  
 Plant Branch Client: Southern Company Data: Plant Branch AP



### Sen's Slope Estimator

BRGWA-2I (bg)

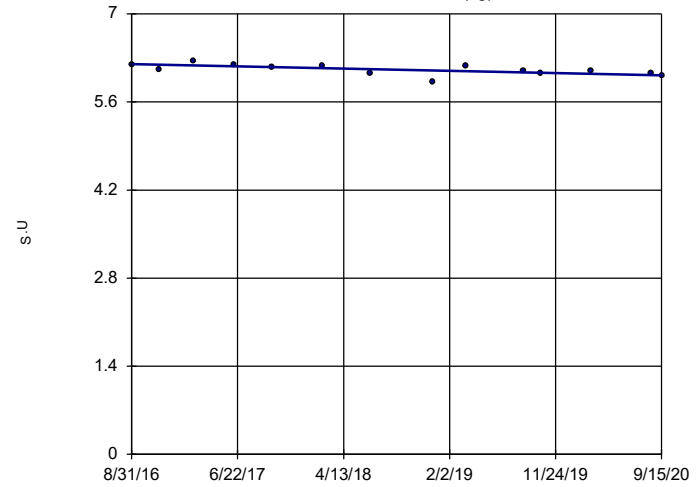


n = 14  
 Slope = -0.1422 units per year.  
 Mann-Kendall statistic = -59  
 critical = -48  
 Decreasing trend significant at 99% confidence level ( $\alpha = 0.005$  per tail).

Constituent: pH, Field Analysis Run 11/1/2020 11:21 AM View: Trend Tests Pond E  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWA-2S (bg)

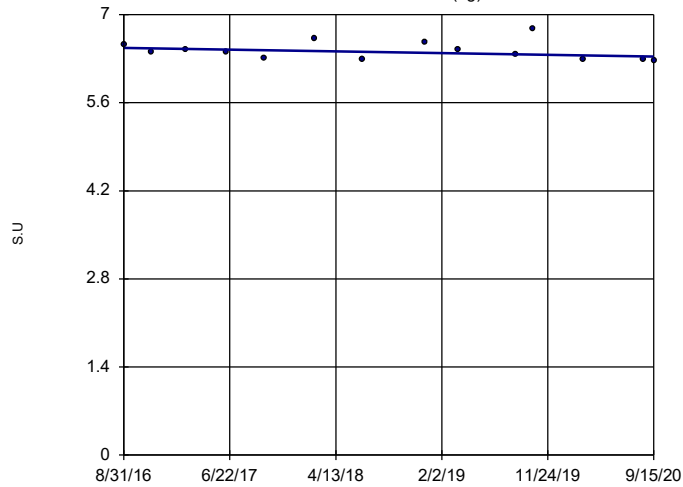


n = 14  
 Slope = -0.04353 units per year.  
 Mann-Kendall statistic = -47  
 critical = -48  
 Trend not significant at 99% confidence level ( $\alpha = 0.005$  per tail).

Constituent: pH, Field Analysis Run 11/1/2020 11:21 AM View: Trend Tests Pond E  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWA-5I (bg)

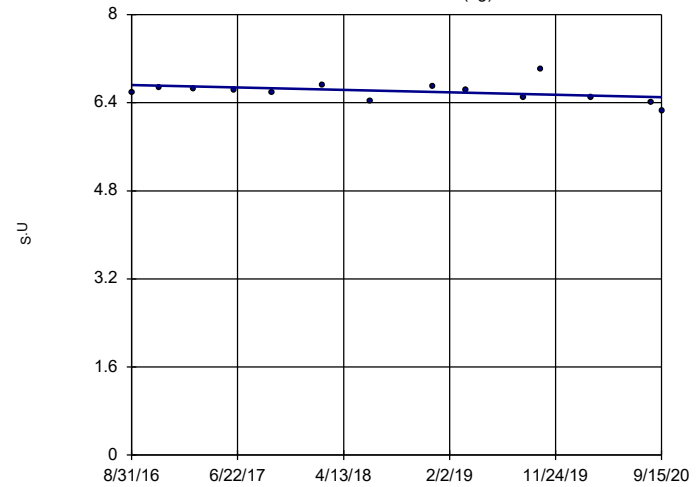


n = 14  
 Slope = -0.03452 units per year.  
 Mann-Kendall statistic = -29  
 critical = -48  
 Trend not significant at 99% confidence level ( $\alpha = 0.005$  per tail).

Constituent: pH, Field Analysis Run 11/1/2020 11:21 AM View: Trend Tests Pond E  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWA-5S (bg)

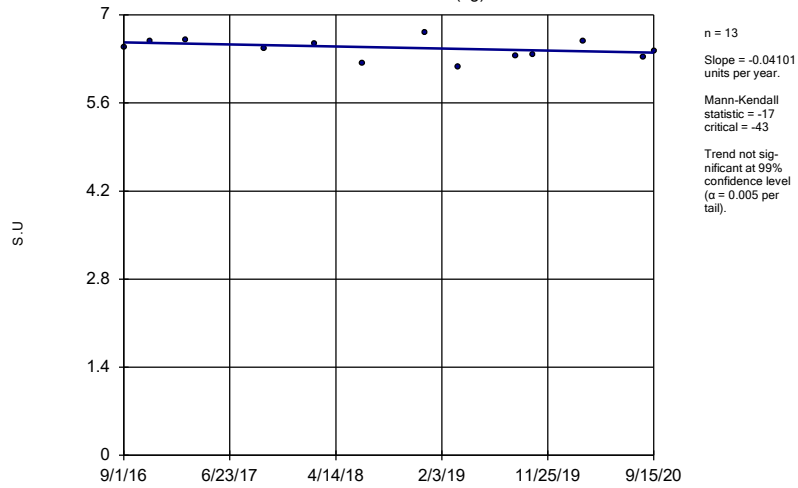


n = 14  
 Slope = -0.05503 units per year.  
 Mann-Kendall statistic = -32  
 critical = -48  
 Trend not significant at 99% confidence level ( $\alpha = 0.005$  per tail).

Constituent: pH, Field Analysis Run 11/1/2020 11:21 AM View: Trend Tests Pond E  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

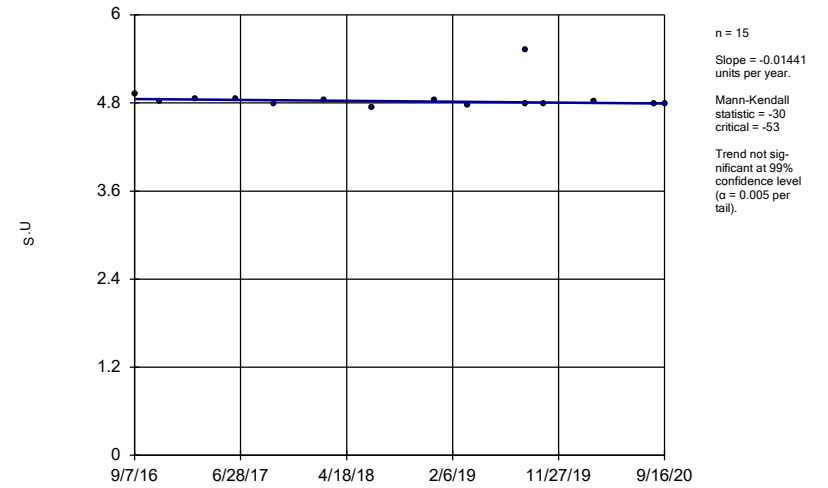
BRGWA-6S (bg)



Constituent: pH, Field Analysis Run 11/1/2020 11:21 AM View: Trend Tests Pond E  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

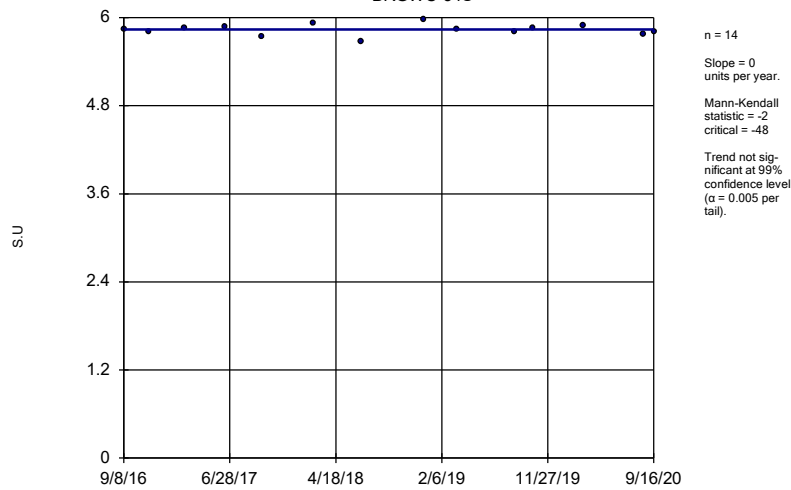
BRGWC-33S



Constituent: pH, Field Analysis Run 11/1/2020 11:21 AM View: Trend Tests Pond E  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

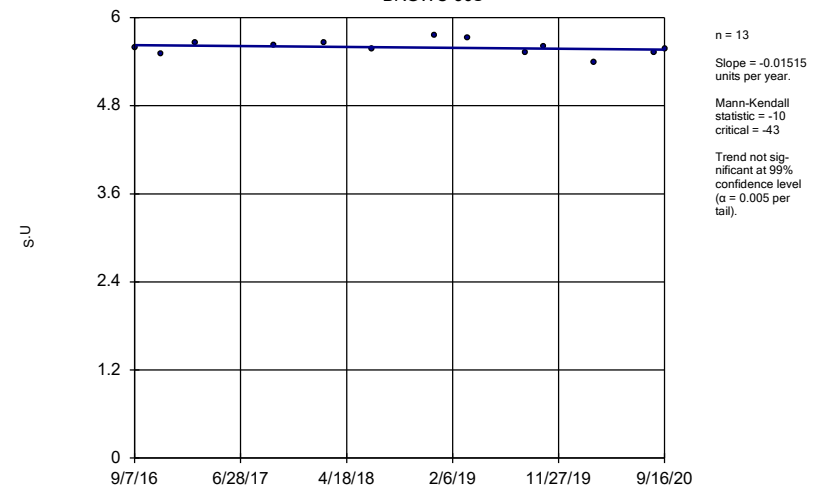
BRGWC-34S



Constituent: pH, Field Analysis Run 11/1/2020 11:21 AM View: Trend Tests Pond E  
 Plant Branch Client: Southern Company Data: Plant Branch AP

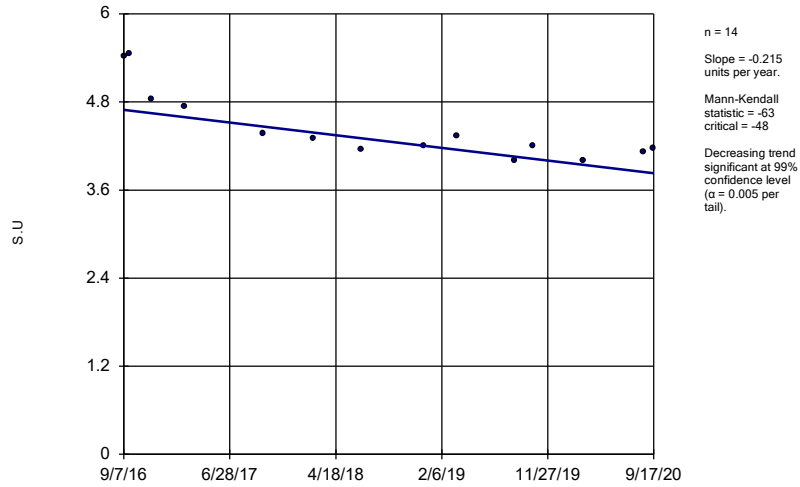
### Sen's Slope Estimator

BRGWC-36S



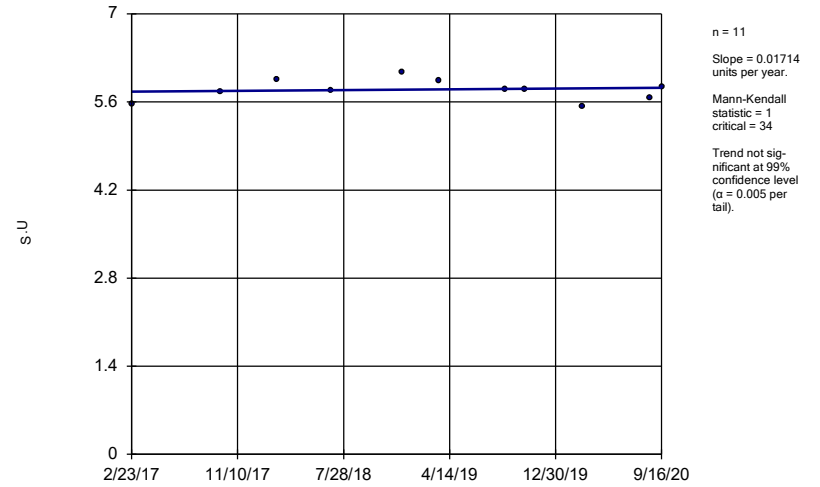
Constituent: pH, Field Analysis Run 11/1/2020 11:21 AM View: Trend Tests Pond E  
 Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator  
BRGWC-38S



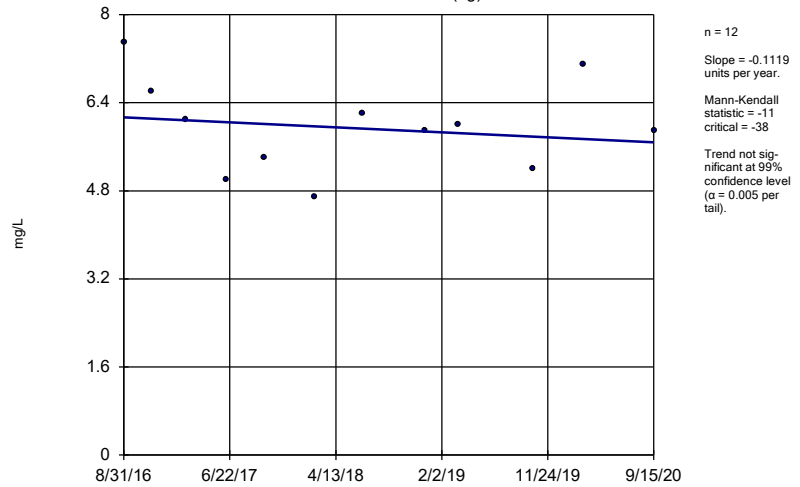
Constituent: pH, Field Analysis Run 11/1/2020 11:21 AM View: Trend Tests Pond E  
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator  
BRGWC-37S



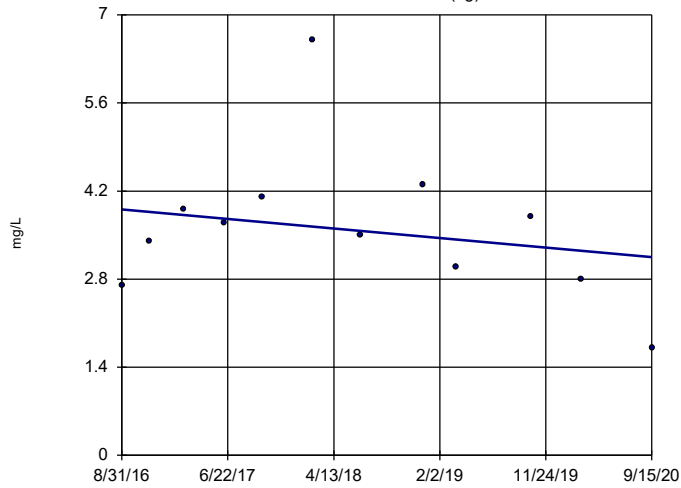
Constituent: pH, Field Analysis Run 11/1/2020 11:21 AM View: Trend Tests Pond E  
Plant Branch Client: Southern Company Data: Plant Branch AP

Sen's Slope Estimator  
BRGWA-2I (bg)



### Sen's Slope Estimator

BRGWA-5I (bg)



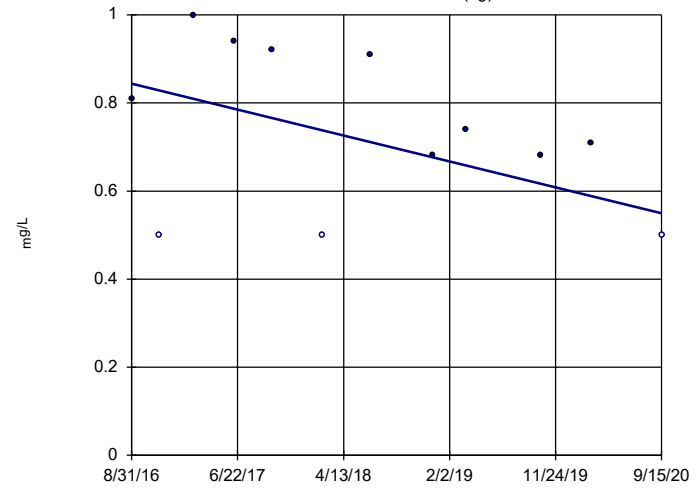
n = 12  
 Slope = -0.1873 units per year.  
 Mann-Kendall statistic = -8  
 critical = -38  
 Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Sulfate as SO4 Analysis Run 11/1/2020 11:21 AM View: Trend Tests Pond E  
 Plant Branch Client: Southern Company Data: Plant Branch AP

Hollow symbols indicate censored values.

### Sen's Slope Estimator

BRGWA-5S (bg)



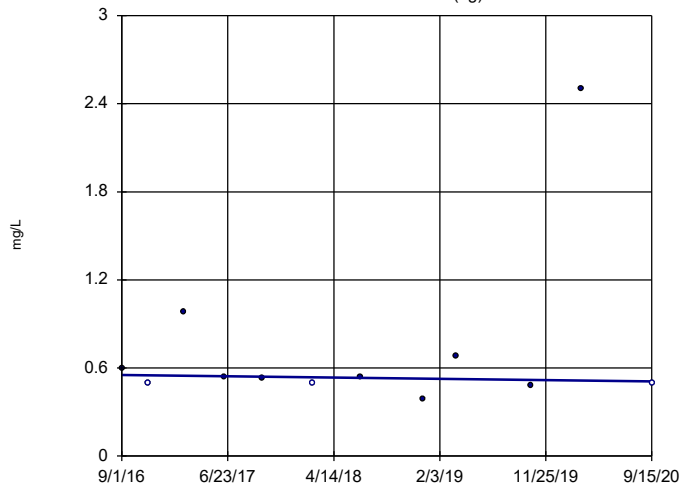
n = 12  
 Slope = -0.07276 units per year.  
 Mann-Kendall statistic = -22  
 critical = -38  
 Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Sulfate as SO4 Analysis Run 11/1/2020 11:21 AM View: Trend Tests Pond E  
 Plant Branch Client: Southern Company Data: Plant Branch AP

Hollow symbols indicate censored values.

### Sen's Slope Estimator

BRGWA-6S (bg)

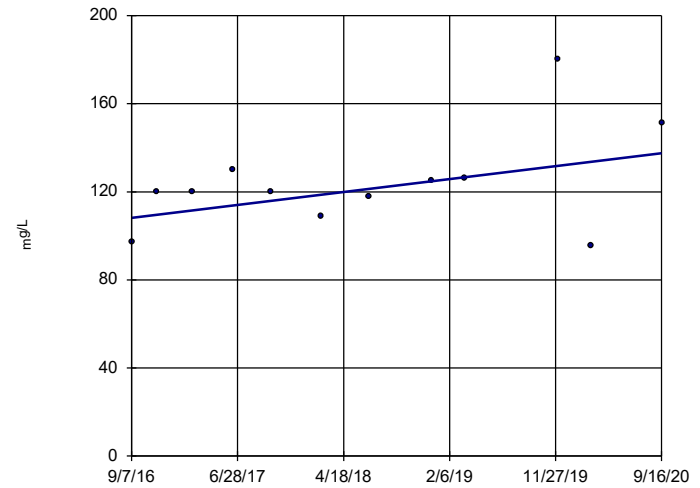


n = 12  
 Slope = -0.01104 units per year.  
 Mann-Kendall statistic = -8  
 critical = -38  
 Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Sulfate as SO4 Analysis Run 11/1/2020 11:21 AM View: Trend Tests Pond E  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWC-17S

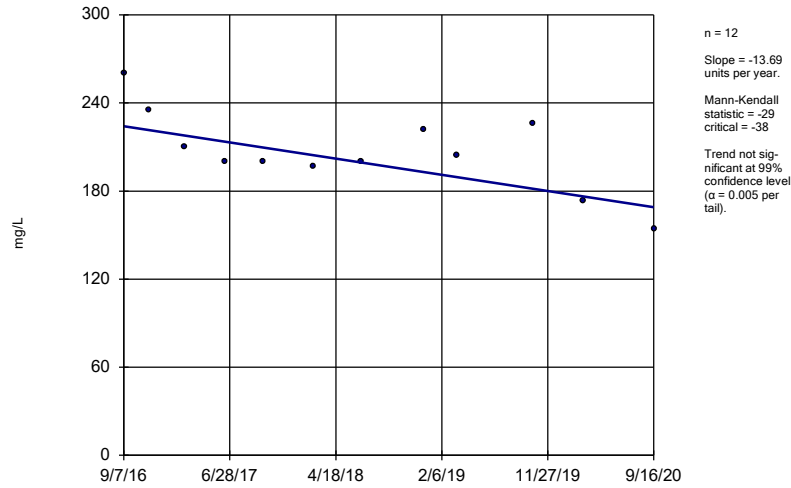


n = 12  
 Slope = 7.267 units per year.  
 Mann-Kendall statistic = 19  
 critical = 38  
 Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Sulfate as SO4 Analysis Run 11/1/2020 11:21 AM View: Trend Tests Pond E  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

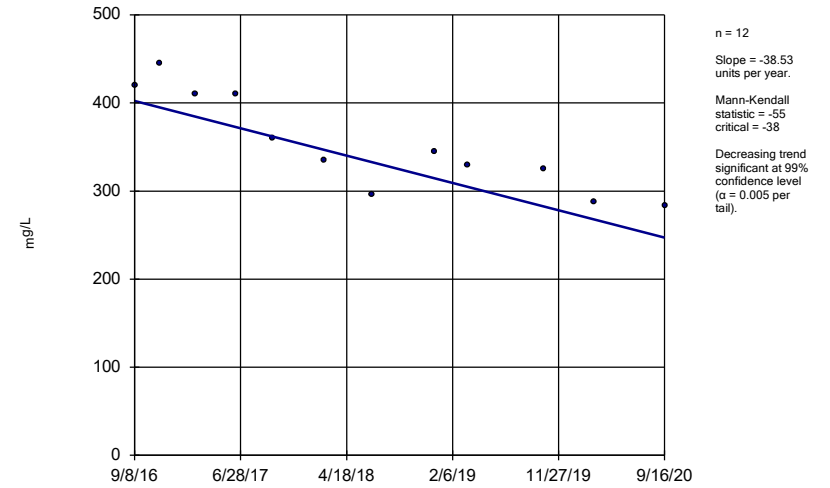
BRGWC-33S



Constituent: Sulfate as SO4 Analysis Run 11/1/2020 11:21 AM View: Trend Tests Pond E  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

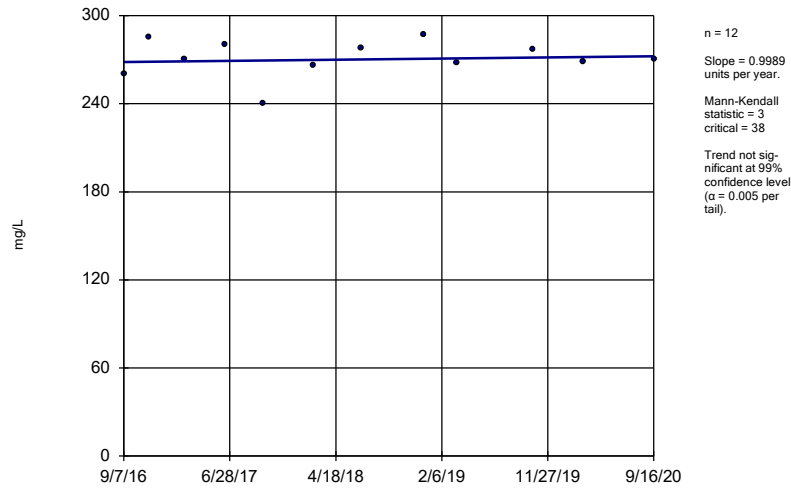
BRGWC-34S



Constituent: Sulfate as SO4 Analysis Run 11/1/2020 11:21 AM View: Trend Tests Pond E  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

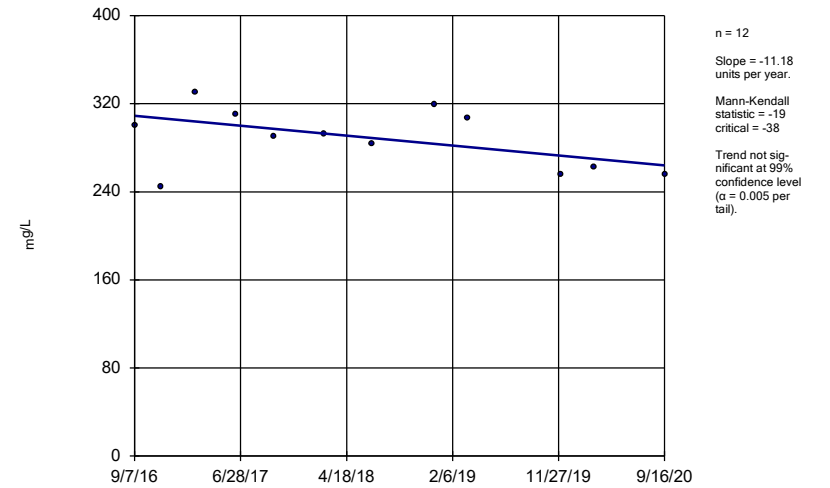
BRGWC-35S



Constituent: Sulfate as SO4 Analysis Run 11/1/2020 11:21 AM View: Trend Tests Pond E  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

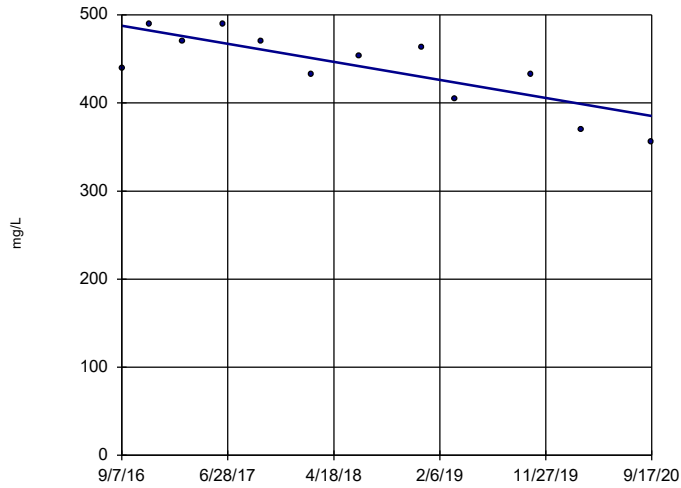
BRGWC-36S



Constituent: Sulfate as SO4 Analysis Run 11/1/2020 11:21 AM View: Trend Tests Pond E  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWC-38S

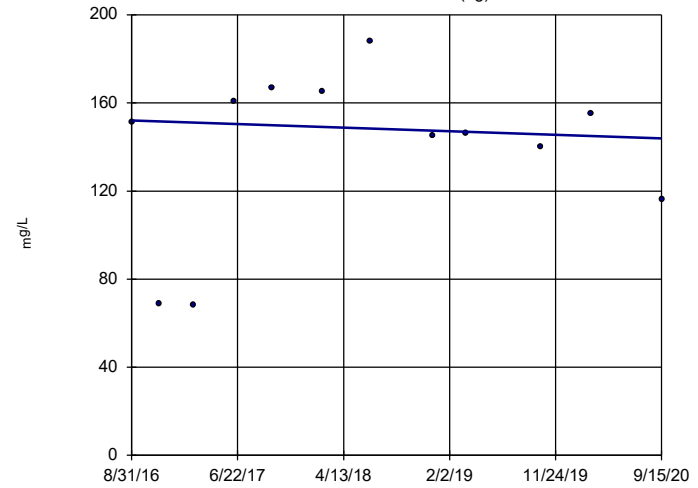


n = 12  
 Slope = -25.44 units per year.  
 Mann-Kendall statistic = -41  
 critical = -38  
 Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Sulfate as SO4 Analysis Run 11/1/2020 11:21 AM View: Trend Tests Pond E  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWA-2I (bg)

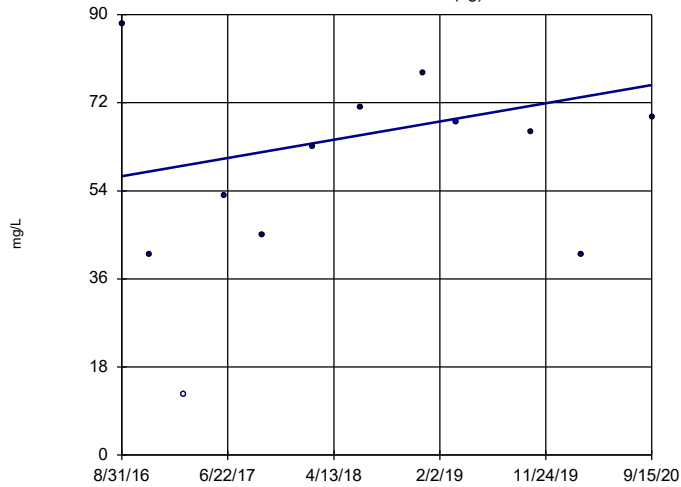


n = 12  
 Slope = -1.984 units per year.  
 Mann-Kendall statistic = -2  
 critical = -38  
 Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Total Dissolved Solids [TDS] Analysis Run 11/1/2020 11:21 AM View: Trend Tests Pond E  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator

BRGWA-2S (bg)

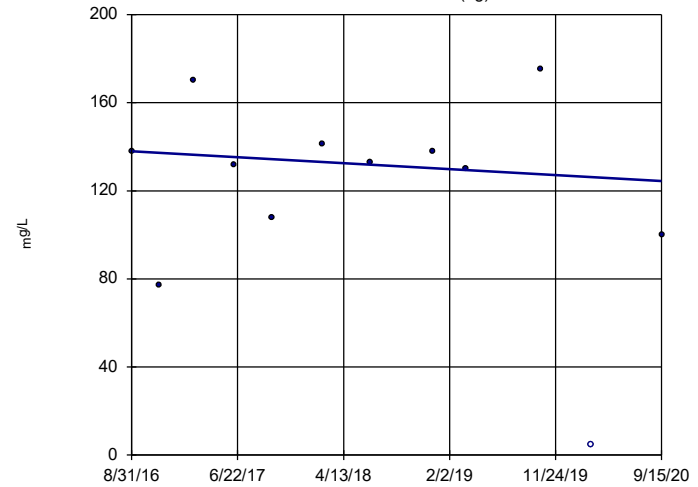


n = 12  
 Slope = 4.612 units per year.  
 Mann-Kendall statistic = 11  
 critical = 38  
 Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Total Dissolved Solids [TDS] Analysis Run 11/1/2020 11:21 AM View: Trend Tests Pond E  
 Plant Branch Client: Southern Company Data: Plant Branch AP

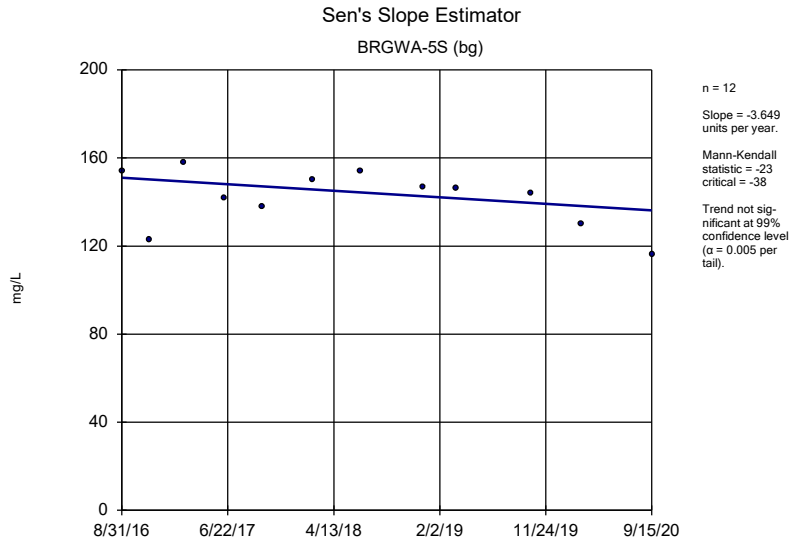
### Sen's Slope Estimator

BRGWA-5I (bg)

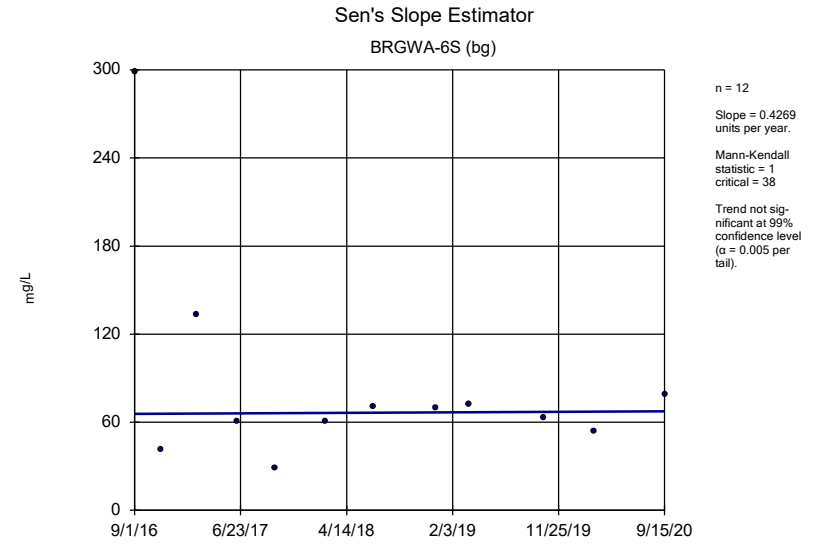


n = 12  
 Slope = -3.347 units per year.  
 Mann-Kendall statistic = -9  
 critical = -38  
 Trend not significant at 99% confidence level (α = 0.005 per tail).

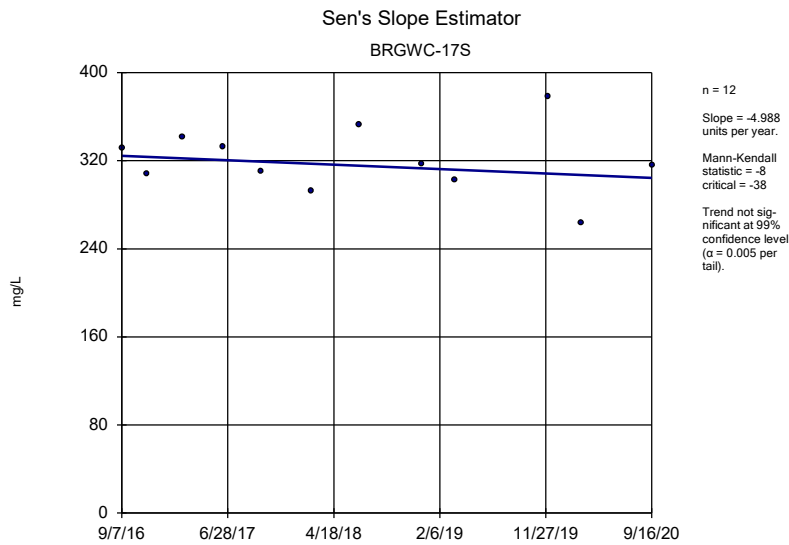
Constituent: Total Dissolved Solids [TDS] Analysis Run 11/1/2020 11:21 AM View: Trend Tests Pond E  
 Plant Branch Client: Southern Company Data: Plant Branch AP



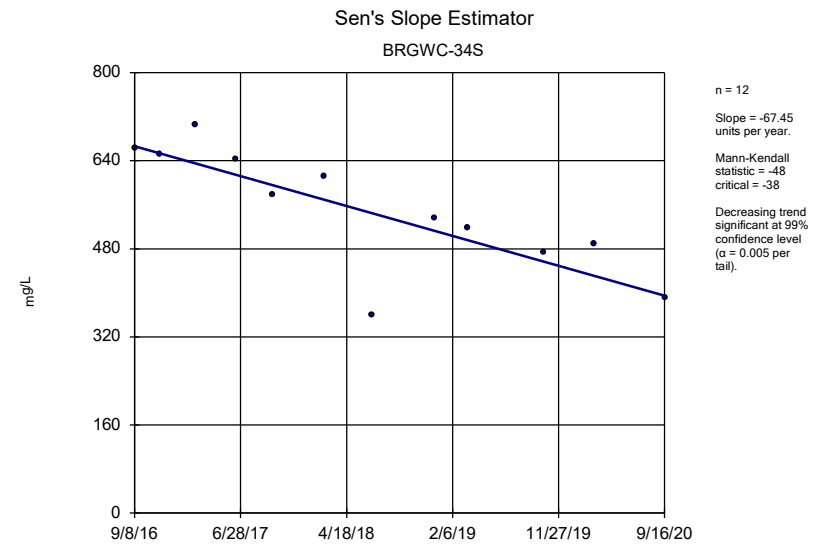
Constituent: Total Dissolved Solids [TDS] Analysis Run 11/1/2020 11:21 AM View: Trend Tests Pond E  
 Plant Branch Client: Southern Company Data: Plant Branch AP



Constituent: Total Dissolved Solids [TDS] Analysis Run 11/1/2020 11:21 AM View: Trend Tests Pond E  
 Plant Branch Client: Southern Company Data: Plant Branch AP

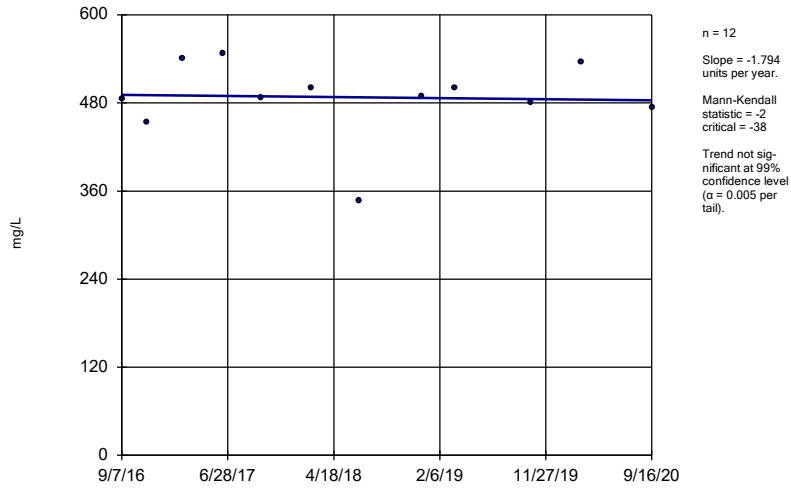


Constituent: Total Dissolved Solids [TDS] Analysis Run 11/1/2020 11:21 AM View: Trend Tests Pond E  
 Plant Branch Client: Southern Company Data: Plant Branch AP



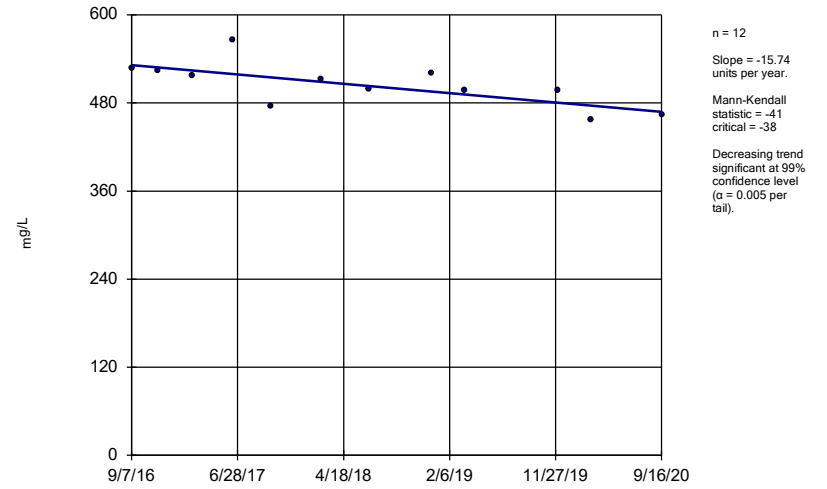
Constituent: Total Dissolved Solids [TDS] Analysis Run 11/1/2020 11:21 AM View: Trend Tests Pond E  
 Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator BRGWC-35S



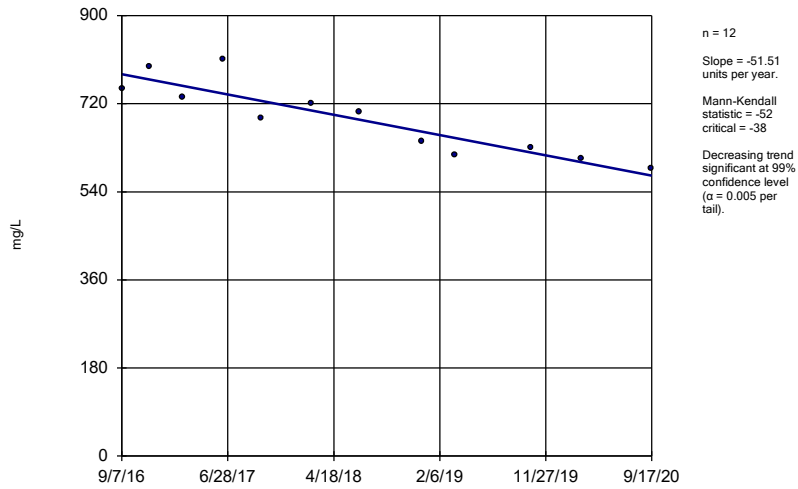
Constituent: Total Dissolved Solids [TDS] Analysis Run 11/1/2020 11:21 AM View: Trend Tests Pond E  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator BRGWC-36S



Constituent: Total Dissolved Solids [TDS] Analysis Run 11/1/2020 11:21 AM View: Trend Tests Pond E  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Sen's Slope Estimator BRGWC-38S



Constituent: Total Dissolved Solids [TDS] Analysis Run 11/1/2020 11:21 AM View: Trend Tests Pond E  
Plant Branch Client: Southern Company Data: Plant Branch AP



FIGURE F.

# Tolerance Limit Summary Table

Plant Branch    Client: Southern Company    Data: Plant Branch AP    Printed 11/1/2020, 11:37 AM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Bg N</u>	<u>Bg Mean</u>	<u>Std. Dev.</u>	<u>%NDs</u>	<u>ND Adj.</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Antimony (mg/L)	n/a	0.003	65	n/a	n/a	89.23	n/a	n/a	0.03565	NP Inter(NDs)
Arsenic (mg/L)	n/a	0.005	65	n/a	n/a	73.85	n/a	n/a	0.03565	NP Inter(normality)
Barium (mg/L)	n/a	0.063	65	n/a	n/a	0	n/a	n/a	0.03565	NP Inter(normality)
Beryllium (mg/L)	n/a	0.003	65	n/a	n/a	100	n/a	n/a	0.03565	NP Inter(NDs)
Cadmium (mg/L)	n/a	0.0025	65	n/a	n/a	100	n/a	n/a	0.03565	NP Inter(NDs)
Chromium (mg/L)	n/a	0.01356	65	0.005521	0.004018	20	Kaplan-Meier	No	0.05	Inter
Cobalt (mg/L)	n/a	0.005	63	n/a	n/a	49.21	n/a	n/a	0.0395	NP Inter(normality)
Combined Radium 226 + 228 (pCi/L)	n/a	1.42	65	0.676	0.3721	0	None	No	0.05	Inter
Fluoride (mg/L)	n/a	0.3	70	n/a	n/a	52.86	n/a	n/a	0.02758	NP Inter(normality)
Lead (mg/L)	n/a	0.005	65	n/a	n/a	75.38	n/a	n/a	0.03565	NP Inter(NDs)
Lithium (mg/L)	n/a	0.089	65	n/a	n/a	47.69	n/a	n/a	0.03565	NP Inter(normality)
Mercury (mg/L)	n/a	0.0005	55	n/a	n/a	90.91	n/a	n/a	0.05954	NP Inter(NDs)
Molybdenum (mg/L)	n/a	0.01	65	n/a	n/a	70.77	n/a	n/a	0.03565	NP Inter(normality)
Selenium (mg/L)	n/a	0.01	65	n/a	n/a	100	n/a	n/a	0.03565	NP Inter(NDs)
Thallium (mg/L)	n/a	0.001	65	n/a	n/a	100	n/a	n/a	0.03565	NP Inter(NDs)

FIGURE G.

<b>PLANT BRANCH POND E GWPS</b>			
<b>Constituent Name</b>	<b>MCL</b>	<b>Background Limit</b>	<b>GWPS</b>
Antimony, Total (mg/L)	0.006	0.003	0.006
Arsenic, Total (mg/L)	0.01	0.005	0.01
Barium, Total (mg/L)	2	0.063	2
Beryllium, Total (mg/L)	0.004	0.003	0.004
Cadmium, Total (mg/L)	0.005	0.0025	0.005
Chromium, Total (mg/L)	0.1	0.014	0.1
Cobalt, Total (mg/L)	n/a	0.005	0.005
Combined Radium, Total (pCi/L)	5	1.42	5
Fluoride, Total (mg/L)	4	0.3	4
Lead, Total (mg/L)	n/a	0.005	0.005
Lithium, Total (mg/L)	n/a	0.089	0.089
Mercury, Total (mg/L)	0.002	0.0005	0.002
Molybdenum, Total (mg/L)	n/a	0.01	0.01
Selenium, Total (mg/L)	0.05	0.01	0.05
Thallium, Total (mg/L)	0.002	0.001	0.002

*\*MCL = Maximum Contaminant Level*

*\*GWPS = Groundwater Protection Standard*

FIGURE H.

# Confidence Interval Summary - Significant Results

Plant Branch    Client: Southern Company    Data: Plant Branch AP    Printed 11/1/2020, 11:55 AM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Compliance</u>	<u>Sig. N</u>	<u>Mean</u>	<u>Std. Dev.</u>	<u>%NDs</u>	<u>ND Adj.</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Beryllium (mg/L)	BRGWC-38S	0.009752	0.008206	0.004	Yes 14	0.008979	0.001091	0	None	No	0.01	Param.
Cobalt (mg/L)	BRGWC-33S	0.05413	0.04206	0.005	Yes 14	0.04809	0.008521	0	None	No	0.01	Param.
Cobalt (mg/L)	BRGWC-38S	0.2679	0.2199	0.005	Yes 13	0.2439	0.03224	0	None	No	0.01	Param.

# Confidence Interval Summary - All Results

Plant Branch    Client: Southern Company    Data: Plant Branch AP    Printed 11/1/2020, 11:55 AM

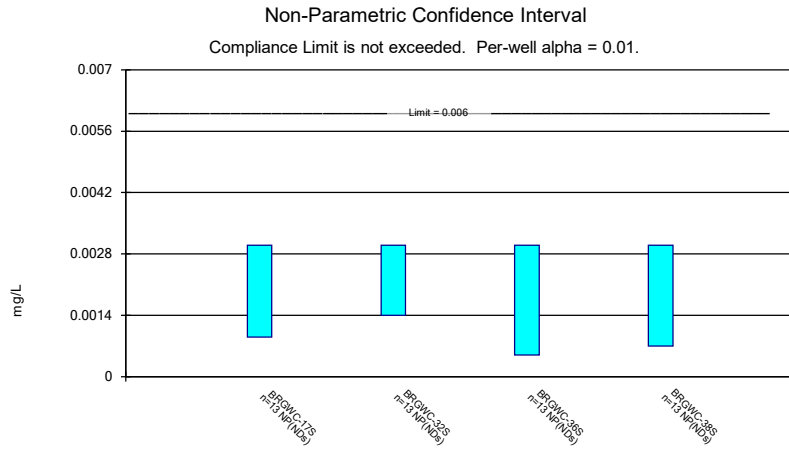
Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	BRGWC-17S	0.003	0.0009	0.006	No	13	0.002838	0.0005824	92.31	None	No	0.01	NP (NDs)
Antimony (mg/L)	BRGWC-32S	0.003	0.0014	0.006	No	13	0.002877	0.0004438	92.31	None	No	0.01	NP (NDs)
Antimony (mg/L)	BRGWC-36S	0.003	0.00049	0.006	No	13	0.002418	0.001106	76.92	None	No	0.01	NP (NDs)
Antimony (mg/L)	BRGWC-38S	0.003	0.0007	0.006	No	13	0.002823	0.0006379	92.31	None	No	0.01	NP (NDs)
Arsenic (mg/L)	BRGWC-17S	0.005	0.0006	0.01	No	13	0.003862	0.001897	69.23	None	No	0.01	NP (normality)
Arsenic (mg/L)	BRGWC-32S	0.005	0.00053	0.01	No	13	0.004656	0.00124	92.31	None	No	0.01	NP (NDs)
Arsenic (mg/L)	BRGWC-33S	0.005	0.0006	0.01	No	14	0.004369	0.001605	85.71	None	No	0.01	NP (NDs)
Arsenic (mg/L)	BRGWC-35S	0.005	0.00044	0.01	No	13	0.003957	0.001983	76.92	None	No	0.01	NP (NDs)
Arsenic (mg/L)	BRGWC-36S	0.005	0.0007	0.01	No	13	0.004012	0.001882	76.92	None	No	0.01	NP (NDs)
Arsenic (mg/L)	BRGWC-38S	0.003132	0.001411	0.01	No	13	0.002783	0.001583	15.38	Kaplan-Meier	sqrt(x)	0.01	Param.
Barium (mg/L)	BRGWC-17S	0.04297	0.03814	2	No	13	0.04055	0.003253	0	None	No	0.01	Param.
Barium (mg/L)	BRGWC-32S	0.04652	0.02982	2	No	13	0.03817	0.01123	0	None	No	0.01	Param.
Barium (mg/L)	BRGWC-33S	0.02281	0.02023	2	No	14	0.02152	0.001822	0	None	No	0.01	Param.
Barium (mg/L)	BRGWC-34S	0.03631	0.02575	2	No	13	0.03103	0.007105	0	None	No	0.01	Param.
Barium (mg/L)	BRGWC-35S	0.0627	0.0382	2	No	13	0.05178	0.02009	0	None	ln(x)	0.01	Param.
Barium (mg/L)	BRGWC-36S	0.04729	0.03286	2	No	13	0.04039	0.01069	0	None	x^(1/3)	0.01	Param.
Barium (mg/L)	BRGWC-38S	0.0272	0.01589	2	No	13	0.02192	0.008686	7.692	None	x^(1/3)	0.01	Param.
Beryllium (mg/L)	BRGWC-33S	0.0022	0.0017	0.004	No	14	0.002507	0.002189	14.29	None	No	0.01	NP (normality)
Beryllium (mg/L)	BRGWC-34S	0.003	0.00012	0.004	No	13	0.001875	0.003691	23.08	None	No	0.01	NP (normality)
Beryllium (mg/L)	BRGWC-35S	0.003	0.0001	0.004	No	13	0.001868	0.003694	23.08	None	No	0.01	NP (normality)
Beryllium (mg/L)	BRGWC-36S	0.01	0.00009	0.004	No	14	0.003133	0.004571	35.71	None	No	0.01	NP (normality)
<b>Beryllium (mg/L)</b>	<b>BRGWC-38S</b>	<b>0.009752</b>	<b>0.008206</b>	<b>0.004</b>	<b>Yes</b>	<b>14</b>	<b>0.008979</b>	<b>0.001091</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
Cadmium (mg/L)	BRGWC-32S	0.0025	0.001	0.005	No	14	0.002051	0.0009155	85.71	None	No	0.01	NP (NDs)
Cadmium (mg/L)	BRGWC-33S	0.0006	0.00032	0.005	No	14	0.00059	0.0005785	14.29	None	No	0.01	NP (normality)
Cadmium (mg/L)	BRGWC-34S	0.001	0.00017	0.005	No	13	0.0007062	0.0008324	23.08	None	No	0.01	NP (normality)
Cadmium (mg/L)	BRGWC-36S	0.0025	0.0001	0.005	No	14	0.002156	0.0008752	85.71	None	No	0.01	NP (NDs)
Cadmium (mg/L)	BRGWC-38S	0.001	0.0005	0.005	No	13	0.0007615	0.0005414	15.38	None	No	0.01	NP (normality)
Chromium (mg/L)	BRGWC-17S	0.01324	0.00978	0.1	No	13	0.01155	0.002474	0	None	sqrt(x)	0.01	Param.
Chromium (mg/L)	BRGWC-32S	0.01	0.0011	0.1	No	13	0.004808	0.004293	38.46	None	No	0.01	NP (normality)
Chromium (mg/L)	BRGWC-33S	0.01	0.00049	0.1	No	14	0.009321	0.002542	92.86	None	No	0.01	NP (NDs)
Chromium (mg/L)	BRGWC-35S	0.006756	0.004114	0.1	No	13	0.006315	0.00236	15.38	Kaplan-Meier	No	0.01	Param.
Chromium (mg/L)	BRGWC-36S	0.008908	0.007461	0.1	No	13	0.008185	0.0009728	7.692	None	No	0.01	Param.
Chromium (mg/L)	BRGWC-38S	0.0044	0.0028	0.1	No	13	0.004215	0.001921	7.692	None	No	0.01	NP (normality)
Cobalt (mg/L)	BRGWC-32S	0.01	0.0025	0.005	No	14	0.005179	0.001539	92.86	None	No	0.01	NP (NDs)
<b>Cobalt (mg/L)</b>	<b>BRGWC-33S</b>	<b>0.05413</b>	<b>0.04206</b>	<b>0.005</b>	<b>Yes</b>	<b>14</b>	<b>0.04809</b>	<b>0.008521</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
Cobalt (mg/L)	BRGWC-34S	0.005	0.0029	0.005	No	13	0.004238	0.001843	15.38	None	No	0.01	NP (normality)
Cobalt (mg/L)	BRGWC-35S	0.01	0.0004	0.005	No	13	0.004138	0.002638	69.23	None	No	0.01	NP (normality)
<b>Cobalt (mg/L)</b>	<b>BRGWC-38S</b>	<b>0.2679</b>	<b>0.2199</b>	<b>0.005</b>	<b>Yes</b>	<b>13</b>	<b>0.2439</b>	<b>0.03224</b>	<b>0</b>	<b>None</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
Combined Radium 226 + 228 (pCi/L)	BRGWC-17S	0.8565	0.3066	5	No	13	0.5816	0.3698	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BRGWC-32S	1.163	0.4582	5	No	13	0.8107	0.474	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BRGWC-33S	1.316	0.6697	5	No	13	0.9926	0.4342	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BRGWC-34S	1.113	0.7181	5	No	13	0.9157	0.2657	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BRGWC-35S	1.114	0.4588	5	No	13	0.7863	0.4404	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BRGWC-36S	1.289	0.6698	5	No	13	0.9795	0.4165	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BRGWC-38S	3.222	2.02	5	No	13	2.621	0.8083	0	None	No	0.01	Param.
Fluoride (mg/L)	BRGWC-17S	0.1689	0.07726	4	No	14	0.1269	0.07314	7.143	None	sqrt(x)	0.01	Param.
Fluoride (mg/L)	BRGWC-32S	0.15	0.09	4	No	14	0.1257	0.06248	64.29	None	No	0.01	NP (normality)
Fluoride (mg/L)	BRGWC-33S	0.2587	0.1184	4	No	15	0.1955	0.1142	6.667	None	sqrt(x)	0.01	Param.
Fluoride (mg/L)	BRGWC-34S	0.1657	0.07895	4	No	14	0.1324	0.08901	14.29	None	ln(x)	0.01	Param.
Fluoride (mg/L)	BRGWC-35S	0.1302	0.05494	4	No	14	0.1074	0.07988	21.43	Kaplan-Meier	ln(x)	0.01	Param.
Fluoride (mg/L)	BRGWC-36S	0.15	0.07	4	No	14	0.1265	0.1172	57.14	None	No	0.01	NP (normality)
Fluoride (mg/L)	BRGWC-38S	0.9706	0.7063	4	No	14	0.8493	0.219	0	None	ln(x)	0.01	Param.
Lead (mg/L)	BRGWC-17S	0.005	0.000054	0.005	No	13	0.00462	0.001372	92.31	None	No	0.01	NP (NDs)
Lead (mg/L)	BRGWC-33S	0.005	0.00007	0.005	No	14	0.001501	0.002297	28.57	None	No	0.01	NP (normality)
Lead (mg/L)	BRGWC-34S	0.005	0.0003	0.005	No	13	0.004261	0.001805	84.62	None	No	0.01	NP (NDs)

# Confidence Interval Summary - All Results

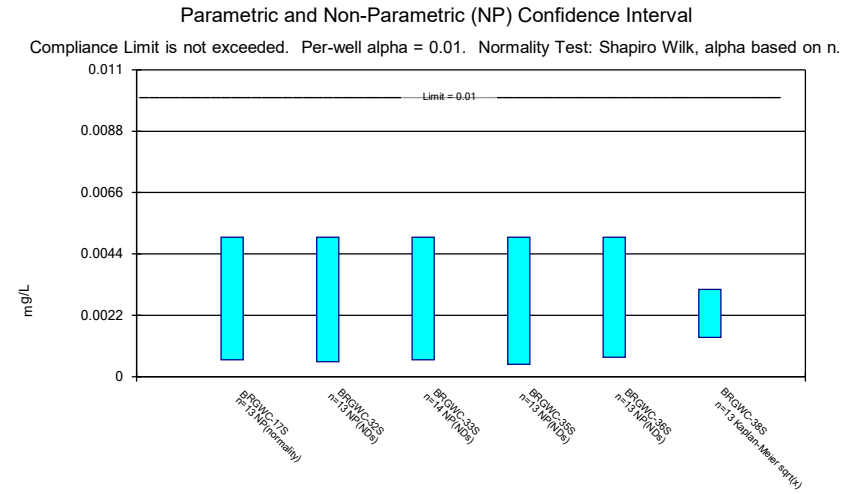
Plant Branch    Client: Southern Company    Data: Plant Branch AP    Printed 11/1/2020, 11:55 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Lead (mg/L)	BRGWC-35S	0.005	0.00012	0.005	No	13	0.003871	0.002146	76.92	None	No	0.01	NP (NDs)
Lead (mg/L)	BRGWC-36S	0.005	0.000047	0.005	No	13	0.004619	0.001374	92.31	None	No	0.01	NP (NDs)
Lead (mg/L)	BRGWC-38S	0.0005	0.00032	0.005	No	13	0.0007431	0.00128	7.692	None	No	0.01	NP (normality)
Lithium (mg/L)	BRGWC-17S	0.03	0.00097	0.089	No	13	0.02107	0.01394	69.23	None	No	0.01	NP (normality)
Lithium (mg/L)	BRGWC-32S	0.03	0.002	0.089	No	13	0.006446	0.01045	15.38	None	No	0.01	NP (normality)
Lithium (mg/L)	BRGWC-33S	0.011	0.0092	0.089	No	14	0.01141	0.005392	7.143	None	No	0.01	NP (normality)
Lithium (mg/L)	BRGWC-34S	0.03	0.00082	0.089	No	13	0.02103	0.014	69.23	None	No	0.01	NP (normality)
Lithium (mg/L)	BRGWC-35S	0.0023	0.002	0.089	No	13	0.004277	0.007729	7.692	None	No	0.01	NP (normality)
Lithium (mg/L)	BRGWC-36S	0.03	0.0022	0.089	No	13	0.006685	0.01035	15.38	None	No	0.01	NP (normality)
Lithium (mg/L)	BRGWC-38S	0.0254	0.02	0.089	No	13	0.02225	0.002833	7.692	None	No	0.01	NP (normality)
Mercury (mg/L)	BRGWC-17S	0.0005	0.000084	0.002	No	11	0.0004222	0.0001732	81.82	None	No	0.006	NP (NDs)
Mercury (mg/L)	BRGWC-32S	0.0005	0.00009	0.002	No	11	0.0003884	0.0001912	72.73	None	No	0.006	NP (normality)
Mercury (mg/L)	BRGWC-33S	0.0005	0.00007	0.002	No	12	0.0004258	0.0001733	83.33	None	No	0.01	NP (NDs)
Mercury (mg/L)	BRGWC-34S	0.0005	0.00007	0.002	No	11	0.0003845	0.0001986	72.73	None	No	0.006	NP (normality)
Mercury (mg/L)	BRGWC-35S	0.0005	0.00013	0.002	No	11	0.0004273	0.0001624	81.82	None	No	0.006	NP (NDs)
Mercury (mg/L)	BRGWC-36S	0.0005	0.00013	0.002	No	11	0.0004273	0.0001624	81.82	None	No	0.006	NP (NDs)
Mercury (mg/L)	BRGWC-38S	0.0001571	0.00008094	0.002	No	11	0.0002	0.0001536	18.18	Kaplan-Meier In(x)		0.01	Param.
Selenium (mg/L)	BRGWC-17S	0.01	0.0018	0.05	No	13	0.004769	0.003691	30.77	None	No	0.01	NP (normality)
Selenium (mg/L)	BRGWC-32S	0.1	0.0019	0.05	No	14	0.04472	0.04778	28.57	None	No	0.01	NP (normality)
Selenium (mg/L)	BRGWC-33S	0.01	0.0018	0.05	No	14	0.006421	0.003759	50	None	No	0.01	NP (normality)
Selenium (mg/L)	BRGWC-36S	0.006061	0.00315	0.05	No	13	0.004685	0.002163	7.692	None	sqrt(x)	0.01	Param.
Selenium (mg/L)	BRGWC-38S	0.04305	0.03317	0.05	No	13	0.03811	0.006644	0	None	No	0.01	Param.
Thallium (mg/L)	BRGWC-17S	0.001	0.000066	0.002	No	13	0.0009282	0.000259	92.31	None	No	0.01	NP (NDs)
Thallium (mg/L)	BRGWC-33S	0.00024	0.00018	0.002	No	14	0.0002536	0.000216	7.143	None	No	0.01	NP (normality)
Thallium (mg/L)	BRGWC-38S	0.001	0.00018	0.002	No	13	0.0004085	0.0003404	23.08	None	No	0.01	NP (normality)

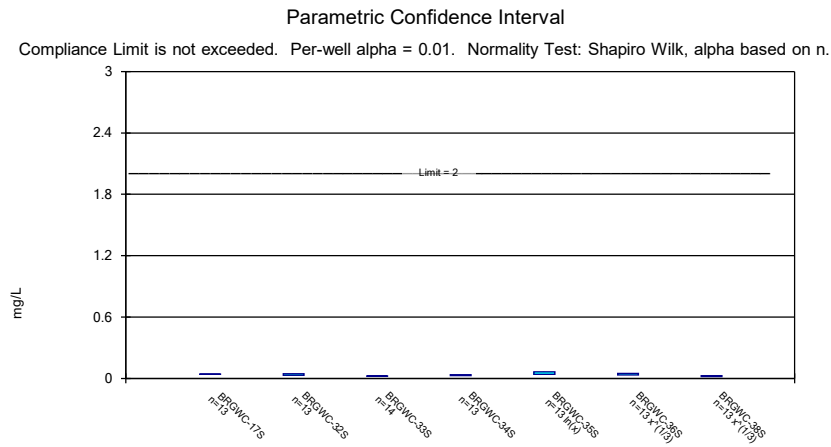




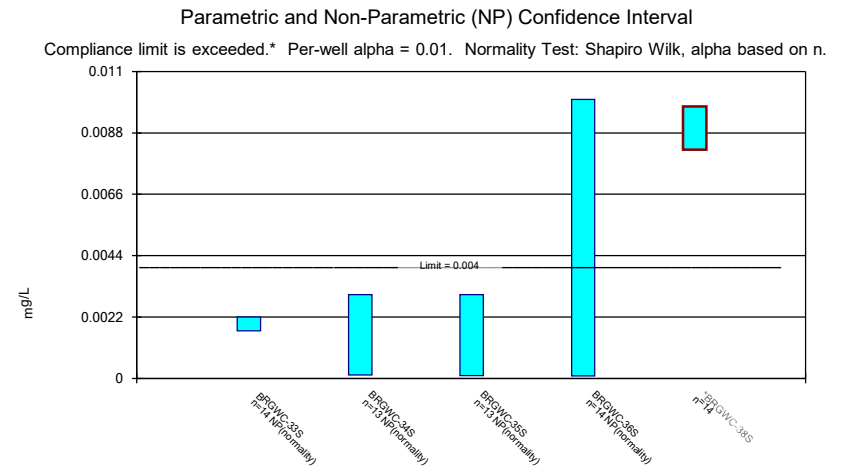
Constituent: Antimony Analysis Run 11/1/2020 11:51 AM View: Confidence Intervals Pond E  
Plant Branch Client: Southern Company Data: Plant Branch AP



Constituent: Arsenic Analysis Run 11/1/2020 11:51 AM View: Confidence Intervals Pond E  
Plant Branch Client: Southern Company Data: Plant Branch AP



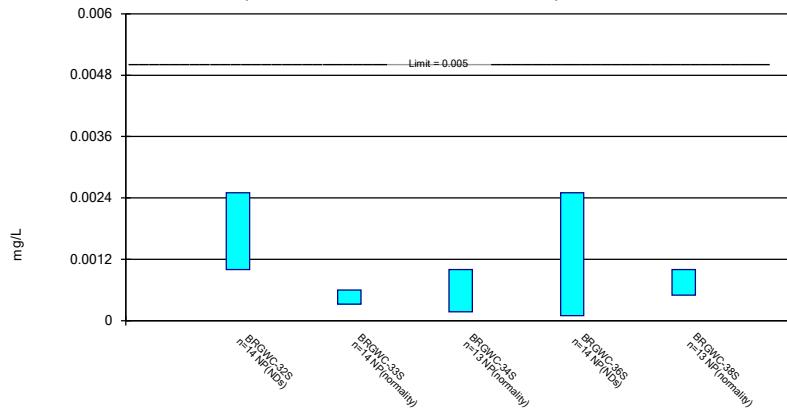
Constituent: Barium Analysis Run 11/1/2020 11:51 AM View: Confidence Intervals Pond E  
Plant Branch Client: Southern Company Data: Plant Branch AP



Constituent: Beryllium Analysis Run 11/1/2020 11:51 AM View: Confidence Intervals Pond E  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Non-Parametric Confidence Interval

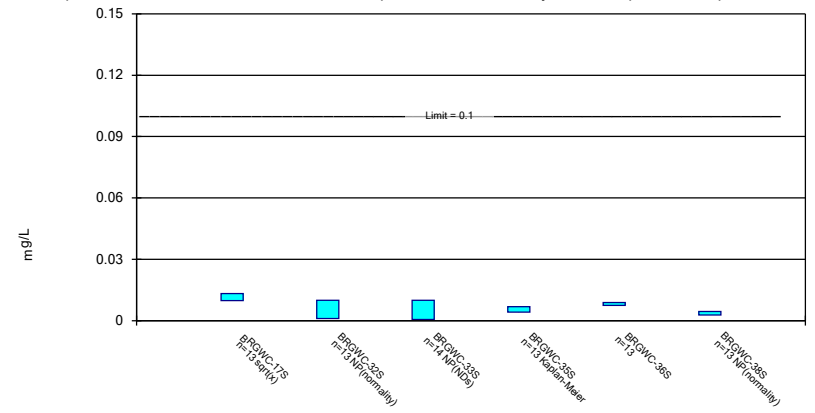
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Cadmium Analysis Run 11/1/2020 11:51 AM View: Confidence Intervals Pond E  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Parametric and Non-Parametric (NP) Confidence Interval

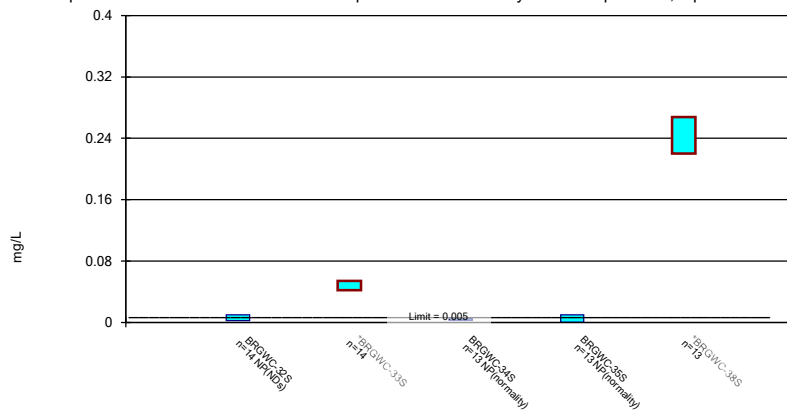
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Chromium Analysis Run 11/1/2020 11:51 AM View: Confidence Intervals Pond E  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Parametric and Non-Parametric (NP) Confidence Interval

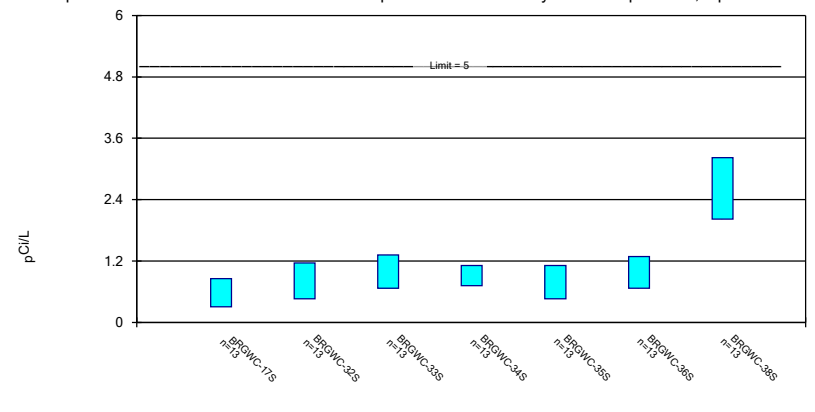
Compliance limit is exceeded.\* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Cobalt Analysis Run 11/1/2020 11:51 AM View: Confidence Intervals Pond E  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Parametric Confidence Interval

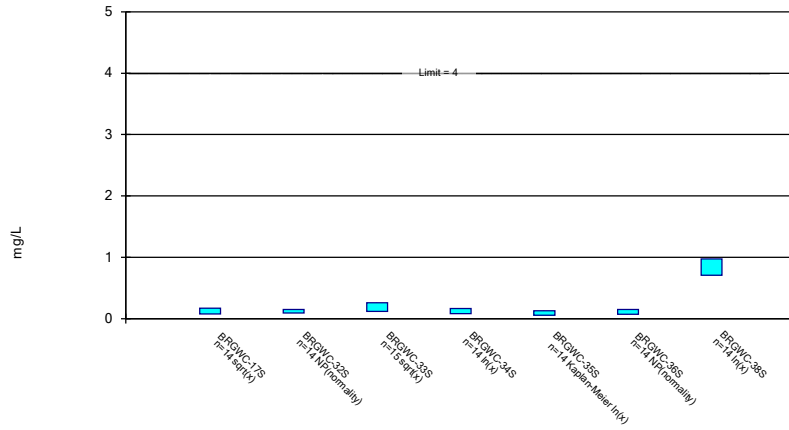
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Combined Radium 226 + 228 Analysis Run 11/1/2020 11:51 AM View: Confidence Intervals  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Parametric and Non-Parametric (NP) Confidence Interval

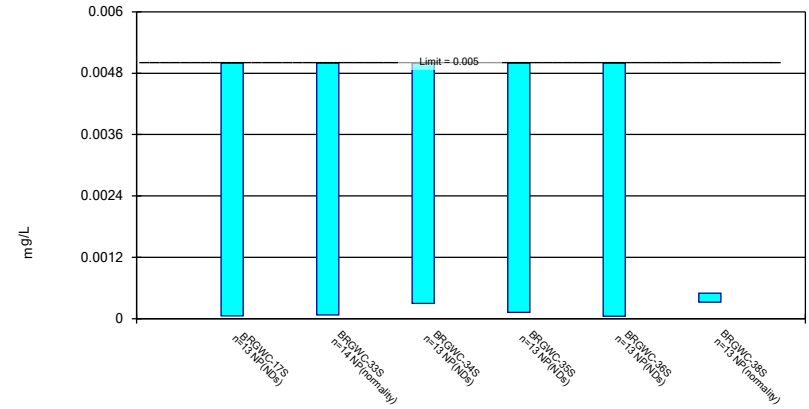
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Fluoride Analysis Run 11/1/2020 11:51 AM View: Confidence Intervals Pond E  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Non-Parametric Confidence Interval

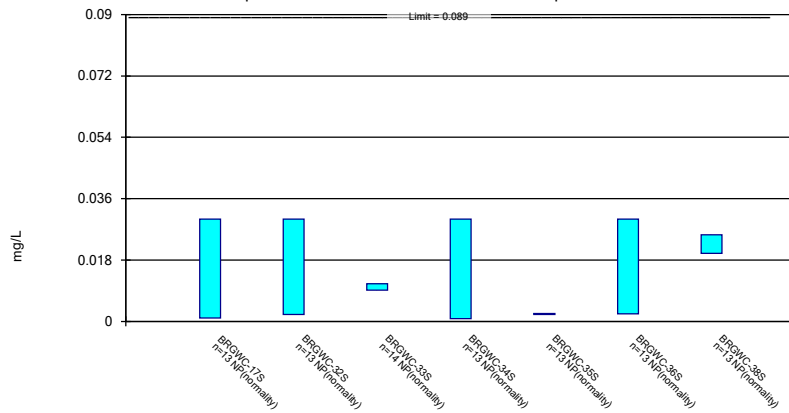
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Lead Analysis Run 11/1/2020 11:51 AM View: Confidence Intervals Pond E  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Non-Parametric Confidence Interval

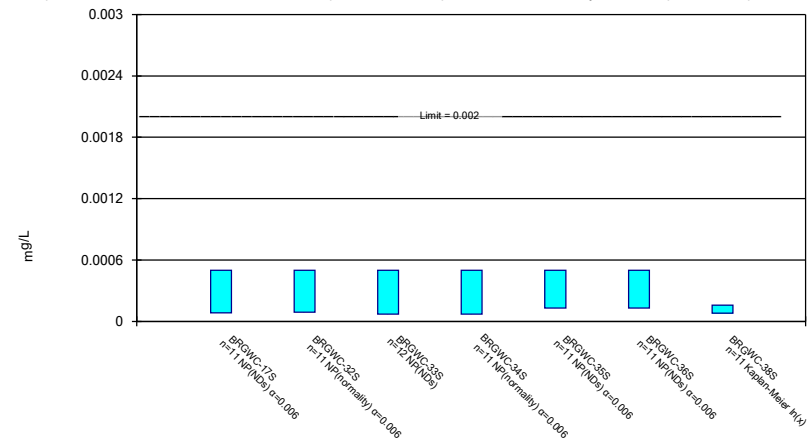
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Lithium Analysis Run 11/1/2020 11:51 AM View: Confidence Intervals Pond E  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Parametric and Non-Parametric (NP) Confidence Interval

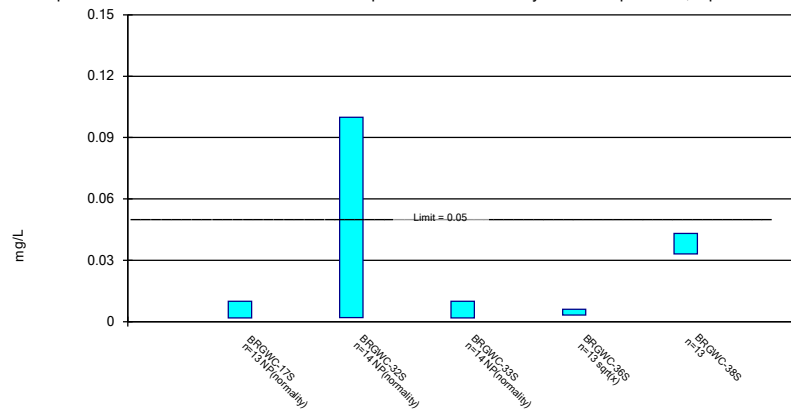
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Mercury Analysis Run 11/1/2020 11:51 AM View: Confidence Intervals Pond E  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Parametric and Non-Parametric (NP) Confidence Interval

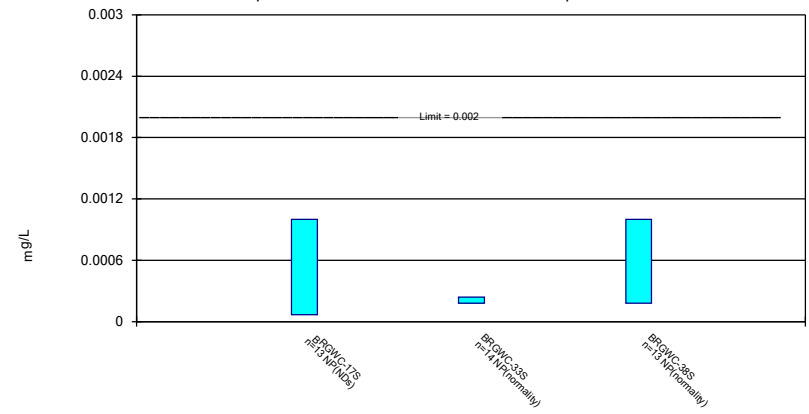
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Selenium Analysis Run 11/1/2020 11:51 AM View: Confidence Intervals Pond E  
Plant Branch Client: Southern Company Data: Plant Branch AP

### Non-Parametric Confidence Interval

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



Constituent: Thallium Analysis Run 11/1/2020 11:51 AM View: Confidence Intervals Pond E  
Plant Branch Client: Southern Company Data: Plant Branch AP



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